Please take notice that you are viewing only one section of the Community Colleges of Spokane Catalog. Other sections of the Catalog contain important policy, procedure, calendar, and curriculum information not found in this section.

The official catalog is found on online at: http://catalog.spokane.edu/

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Program Outlines

For the most current information on career and technical program offerings at SCC and SFCC, view our programs online:
catalog.ccs.spokane.edu/CoursesAndPrograms

ACCOUNTING: SCC

Accounting Assistant
Associate in Applied Science

As a paraprofessional in the accounting field, the accounting assistant analyzes and interprets the essential information about the operations of a business and contributes vitally to important policies and decisions.

An accounting assistant should have above–average aptitude for working with numbers and the ability to concentrate and communicate. Accounting affords a continuing challenge to creative, alert minds.

Students will earn an Accounting Clerk Certificate after completing the first three quarters of the AAS degree. All students graduating from this program must have a minimum grade of 2.0 in each of the accounting, economics and general business required courses. Students must also have a 2.0 cumulative minimum grade point average in all required courses in this program.

This degree is non–transferable to a four–year university. Students working toward the associate in arts degree for transfer to a four–year institution should consult individually with an adviser or counselor for planning the AA degree program. For information on AA degree requirements, refer to the Degree and Certificate Requirements section of the CCS catalog. More information on specific transfer programs can be found in the Academic Programs section of the CCS catalog.

First Quarter

ACCT	151	College Accounting I [1]	5
BT	152	College and Career Strategies	3
BUS&	101	Intro to Business	5
BUS	103	Basic Business Math and Electronic Calculators	5
		Total	**18**

Second Quarter

ACCT	141	QuickBooks	5
ACCT	152	College Accounting II [1]	5
BT	204	Spreadsheet Design and Analysis	5
		Total	**15**

Third Quarter

ACCT	142	Advanced QuickBooks	5
ACCT	161	Payroll Procedures	4
ACCT	162	Business Tax Accounting	1
BT	272	Business Correspondence [4]	5
		Total	**15**

Fourth Quarter

ACCT	212	Accounting Applications and Analysis [2]	5
ACCT	221	Tax I: Individual Income Tax	5
ECON	100	Fundamentals of Economics	5
		Total	**15**

Fifth Quarter

ACCT	222	Tax II: Taxation of Corporations, Partnerships and S Corps	5
ACCT	288	Cooperative Education Work Experience (No Seminar)	2
BUS&	201	Business Law	5
		Total	**12**

Sixth Quarter

ACCT	204	Accounting Integration	5
BUS	280	Human Relations in Business	5
		Business Electives [3]	5
		Total	**15**

90 credits are required for the Associate in Applied Science

Business Electives

BT	160	Job Preparation Techniques	3
BUS	100	Money Management	3
BUS	217	Business Statistics	5
CATT	120	Microsoft Word I	2.5
CATT	238	Advanced Microsoft Excel I	2.5
CATT	239	Advanced Microsoft Excel II	2.5
CATT	241	Microsoft Project	2.5
ECON&	201	Micro Economics	5
ECON&	202	Macro Economics	5
MMGT	101	Principles of Management	5
MMGT	181	Leadership Training-DEC	1-5
MMGT	205	Small Business Planning	5
MMGT	223	Customer Service	3
MMGT	243	Fundamentals of Project Management	5

1 These courses may be substituted with ACCT& 201 and 202.
2 This course may be substituted with ACCT& 203.
3 Select courses from the list of approved business electives. Please see accounting department for additional options and additional accounting co–op credits.
4 May be substituted with BT 274; BT 105 or permission of instructor.

Accounting Clerk
Certificate

As a paraprofessional in the accounting field, the accounting assistant analyzes and interprets the essential information about the operations of a business and contributes vitally to important policies and decisions.

An accounting assistant should have above–average aptitude for working with numbers and the ability to concentrate and communicate. Accounting affords a continuing challenge to creative, alert minds.

Students will earn an Accounting Clerk Certificate after completing the first three quarters of the AAS degree. All students graduating from this program must have a minimum grade of 2.0 in each of the accounting, economics and general

business required courses. Students must also have a 2.0 cumulative minimum grade point average in all required courses in this program.

This degree is non–transferable to a four–year university. Students working toward the associate in arts degree for transfer to a four–year institution should consult individually with an adviser or counselor for planning the AA degree program. For information on AA degree requirements, refer to the Degree and Certificate Requirements section of the CCS catalog. More information on specific transfer programs can be found in the Academic Programs section of the CCS catalog.

First Quarter

ACCT	151	College Accounting I [1]	5
BT	152	College and Career Strategies	3
BUS&	101	Intro to Business	5
BUS	103	Basic Business Math and Electronic Calculators	5
		Total	**18**

Second Quarter

ACCT	141	QuickBooks	5
ACCT	152	College Accounting II [1]	5
BT	204	Spreadsheet Design and Analysis	5
		Total	**15**

Third Quarter

ACCT	142	Advanced QuickBooks	5
ACCT	161	Payroll Procedures	4
ACCT	162	Business Tax Accounting	1
BT	272	Business Correspondence [2]	5
		Total	**15**

48 credits are required for the Certificate

1 These courses may be substituted with ACCT& 201 and 202.

2 May be substituted with BT 274; BT 105 or permission of instructor.

ADDICTION STUDIES: SFCC

Addiction Studies
Associate in Applied Science

SFCC's Addiction Studies program provides two options for obtaining the educational requirements to become a Chemical Dependency Professional (CDP). Washington State requires an associate's degree in human services or related field; **or** successful completion of 90 quarter college credits. At least 45 quarter credits must be in courses relating to the chemical dependency profession and shall include specific competencies defined by the State. SFCC offers the approved educational programs:

1. AAS Degree: A two–year educational training program for people who do not have at least 45 prior college credits.
2. Certificate Program: A one–year program for students who already have a minimum of 45 college–level credits, and need specific chemical dependency courses.

Students will be required to have a grade of 2.0 or better in each Addiction Studies (AS) course in order to graduate from the program.

First Quarter

AS	131	Survey of Addictions	5
AS	176	Addiction Counseling Techniques	5
		First Quarter Electives -Total 4 Credits	4
		Total	**14**

Second Quarter

AS	172	Family Systems and Adolescent Treatment in Addictions	5
AS	182	Cultural Diversity; Risk Intervention for Health/HIV	5
BUS	123	Practical Business Math Applications [2]	5
		Total	**15**

Third Quarter

AS	141	Law, Ethics, and Professional Development for Addiction Counseling	5
AS	277	Group Facilitation for Addiction Treatment	5
ENGL&	101	English Composition I	5
		Total	**15**

Fourth Quarter

AS	221	Treatment Theories for Addictions	5
AS	275	Physiological Actions of Alcohol and Drugs	5
AS	279	Case Management I: Screening, Diagnosis, Assessment, and ASAM	5
		Total	**15**

Fifth Quarter

AS	280	Case Management 2: Treatment Planning and Continuing Care	5
AS	281	Practicum I [1]	5
PSYC&	100	General Psychology	5
		Total	**15**

Sixth Quarter

AS	250	NAADAC Exam Prep	1
AS	282	Practicum II [1]	5
AS	290	Co-Occurring Behavioral Health Disorders	5
PSYC&	200	Lifespan Psychology	5
		Total	**16**

90 credits are required for the Associate in Applied Science

First Quarter Electives –Total 4 Credits

BT	100	Beginning Keyboarding	1
CAPPS	100	Beginning Computer Skills	2
CAPPS	102	Introduction to Office	1
CAPPS	141	Word I	2
CAPPS	142	Word II	2
CAPPS	151	Excel I	2
CAPPS	152	Excel II	2
CAPPS	171	PowerPoint I	2

1 Practicum hours must be performed at an approved chemical dependency field site.

2 MATH& 107 may be substituted for BUS 123.

Addiction Studies
Certificate

SFCC's Addiction Studies program provides two options for obtaining the educational requirements to become a Chemical Dependency Professional (CDP). Washington State requires an associate's degree in human services or related field; **or** successful completion of 90 quarter college credits. At least 45 quarter credits must be in courses relating to the chemical dependency profession and shall include specific competencies

defined by the State. SFCC offers the approved educational programs:

1. AAS Degree: A two–year educational training program for people who do not have at least 45 prior college credits.
2. Certificate Program: A one–year program for students who already have a minimum of 45 college–level credits, and need specific chemical dependency courses.

Students will be required to have a grade of 2.0 or better in each Addiction Studies (AS) course in order to graduate from the program.

This 15 credit Certificate provides the educational requirements for advanced professionals outlined in Washington Administrative Code 246–811–077 to apply for Chemical Dependency Professional Certification with Alternative Training. The coursework meets each of the topics required specific to the treatment of alcohol and drug–addicted people.

First Quarter			
AS	287	Survey of Addiction Alternative Training	3
AS	288	Law and Ethics for Addiction Alternative Training	2
		Total	**5**
Second Quarter			
AS	289	Pharmacological and Physiological Actions of Alcohol and Other Drugs Alternative Training	3
AS	294	Family and Adolescent Treatment of Addictions Alternative Training	2
		Total	**5**
Third Quarter			
AS	295	American Society of Addiction Medicine Alternative Training	3
AS	296	Treatment of Addictions Individual and Group	2
		Total	**5**

15 credits are required for the Certificate

ADMINISTRATIVE ASSISTANT: SCC

Administrative Assistant
Associate in Applied Science

The Administrative Assistant degree is a two–year professional program. Students may participate in online or on–ground classes. The program offers expert business technology instruction giving students the diversified training and background needed to hold positions of responsibility and importance in many areas of the business world.

The Administrative Assistant degree gives students a technical background through completion of computer application courses, provides students an understanding of professional responsibilities, and offers additional on–the–job training. Students develop competencies in office procedures; software applications; business writing and presentations; accounting and business math; organizational and supervisory skills; office, time, and calendar management; desktop publishing and project management. Students practice customer relations and the "soft" skills employers demand. Students will also have a strong foundation in Microsoft Office and other commonly used business software applications. Students will complete capstone courses which will integrate classroom learning into "real–world" office situations.

In order to earn an Administrative Assistant AAS degree, a student must maintain a 2.0 GPA in all individual courses.

First Quarter			
BT	105	Basic Grammar for Business II	5
BT	106	Computing Essentials	5
BT	152	College and Career Strategies	3
CATT	102	Introduction to Outlook	2.5
		Total	**15.5**
Second Quarter			
BT	127	Human Relations and Professional Development	3
BT	196	Skillbuilding	1
BUS	103	Basic Business Math and Electronic Calculators [1]	5
CATT	190	Introduction to PowerPoint	2.5
MMGT	223	Customer Service	3
		Total	**14.5**
Third Quarter			
BT	165	Word Processing	5
BT	204	Spreadsheet Design and Analysis	5
BT	272	Business Correspondence [1]	5
		Total	**15**
Fourth Quarter			
BT	206	Electronic Records Management	3
BT	231	Office Procedures	5
BT	273	Business Research and Report Writing	5
CATT	122	Microsoft Access I	2.5
		Total	**15.5**
Fifth Quarter			
BT	251	Current Trends in Technology	5
BT	260	Administrative Office Management	5
BT	280	Project Management for the Office	2.5
CATT	128	Desktop Publishing	5
		Total	**17.5**
Sixth Quarter			
BT	160	Job Preparation Techniques	3
BT	263	Integrated Office Applications	5
BT	285	Administrative Professional Internship	2
CATT	241	Microsoft Project	2.5
		Approved Electives [2]	5
		Total	**17.5**

95.5 credits are required for the Associate in Applied Science

Approved Electives			
ACCT	141	QuickBooks	5
ACCT	151	College Accounting I	5
ACCT&	201	Prin of Accounting I	5
BT	104	Basic Grammar for Business I	5
BT	251	Current Trends in Technology	5
BT	274	Business Writing for the Web	5
BUS	280	Human Relations in Business	5
CATT	123	Microsoft Access II	2.5
CATT	191	Advanced PowerPoint	2.5
CATT	220	Advanced Microsoft Word I	2.5
CATT	221	Advanced Microsoft Word II	2.5
CATT	222	Advanced Microsoft Access I	2.5
CATT	223	Advanced Microsoft Access II	2.5
CATT	238	Advanced Microsoft Excel I	2.5
CATT	239	Advanced Microsoft Excel II	2.5
CATT	242	Advanced Microsoft Project	2.5
CMST	127	Leadership Development	3-5
CMST&	210	Interpersonal Communication	5
CMST	287	Business and Professional Communication	3-5

ECON	100	Fundamentals of Economics	5
MMGT	125	Social Media Marketing	5
MMGT	212	Retailing	5
MMGT	244	Introduction to Lean Six Sigma	2.5

1 May be substituted with BT 274.

2 Select course from the list of approved electives.

3 BUS 103 may be substituted with BT 128.

ADMINISTRATIVE ASSISTANT: SFCC

Administrative Assistant
Associate in Applied Science

The Administrative Assistant program is a two–year program of study. Students may participate in online or on–ground classes. At the core of every business are administrative support personnel. Students completing this degree will be proficient in computer applications and learn the latest communication tools, procedures, and practices that are essential in today's business environment.

Students completing this degree will be competent in the following areas: oral and written communications, meeting and document preparation, travel arrangements, desktop publishing, bookkeeping procedures, spreadsheets, calendar management, office management, and survey design. Students will also have a strong foundation in Word, Excel, Access, Outlook, and PowerPoint and will have the opportunity to document their competency. Students will complete capstone courses which will integrate classroom learning into "real–world" office situations.

Students will have the opportunity to bridge the gap between the classroom and the business world by participating in a work experience internship as well as a model office simulation. Students may begin in entry–level positions and work toward advancement and promotion.

First Quarter

BT	106	Computing Essentials	5
BT	107	Business Communications [2]	5
BT	110	Strategies for Student Success	2
BUS	122	Practical Business Math	3
		Total	**15**

Second Quarter

BT	102	Document Processing	5
BT	155	Records Information Management	3
BT	272	Business Correspondence	5
CAPPS	180	Outlook	2
		Total	**15**

Third Quarter

ACCT	103	Fundamental Bookkeeping Procedures	3
BT	160	Job Preparation Techniques	3
BT	231	Office Procedures	5
CAPPS	151	Excel I	2
CAPPS	171	PowerPoint I	2
		Total	**15**

Fourth Quarter

BT	232	Office Procedures II	5
BT	258	Desktop Publishing	5
BUS	280	Human Relations in Business [3]	5
		Total	**15**

Fifth Quarter

BT	235	Machine Transcription [1]	5
BT	255	Business Productivity Tools	3
BT	260	Administrative Office Management	5
CAPPS	161	Access I	2
		Total	**15**

Sixth Quarter

BT	201	Information Processing	5
BT	234	Administrative Professional Practicum	5
BT	285	Administrative Professional Internship	2
		Sixth Quarter Elective Option-Choose One	3
		Total	**15**

90 credits are required for the Associate in Applied Science

Sixth Quarter Elective Option–Choose One

ACCT	140	QuickBooks	3
CAPPS	185	Digital Marketing Platforms	3
IS	210	Internet Programming I	3

1 BT 235 may be substituted with BS 236 Virtual Business Practice.

2 BT 107 may be substituted with ENGL& 101 English Composition I.

3 BUS 280 may be substituted with CMST& 210 Interpersonal Communication.

ADMINISTRATIVE OFFICE MANAGEMENT: SCC

Administrative Office Management
Associate in Applied Science

The Administrative Office Management program is an associate degree program that prepares students to assume positions as office managers, supervisors, or as assistants to top executives. Students will develop administrative skills necessary to participate as part of the management team; assist in planning, organizing, and controlling information related activities; and in leading or directing people to attain the objectives of the organization. They may handle a wide range of daily responsibilities including the supervision of support services.

This program is recommended to experienced office staff as well as entry–level office workers who are looking to increase their potential for promotion. Graduates with this degree receive training in a variety of office management functions including those in communications, information resources, and management.

In order to earn an Administrative Office Management AAS degree, a student must maintain a 2.0 GPA in all individual courses.

First Quarter

BT	165	Word Processing	5
BT	272	Business Correspondence [2]	5
CATT	102	Introduction to Outlook	2.5
CATT	190	Introduction to PowerPoint	2.5
		Total	**15**

Second Quarter

BT	231	Office Procedures	5
BT	251	Current Trends in Technology	5
CATT	128	Desktop Publishing	5
		Total	**15**

Third Quarter

ACCT	151	College Accounting I [1]	5
BT	204	Spreadsheet Design and Analysis	5
BT	206	Electronic Records Management	3
CATT	122	Microsoft Access I	2.5
		Total	**15.5**

Fourth Quarter

BT	205	Database Design and Analysis	5
BT	273	Business Research and Report Writing	5
BUS	217	Business Statistics [3]	5
CATT	241	Microsoft Project	2.5
		Total	**17.5**

Fifth Quarter

BT	260	Administrative Office Management	5
BT	280	Project Management for the Office	2.5
CATT	242	Advanced Microsoft Project	2.5
MMGT	244	Introduction to Lean Six Sigma	2.5
MMGT	256	Lean Leadership	5
		Total	**17.5**

Sixth Quarter

BT	160	Job Preparation Techniques	3
BT	263	Integrated Office Applications	5
BT	285	Administrative Professional Internship	2
		Electives	5
		Total	**15**

95.5 credits are required for the Associate in Applied Science

Electives

ACCT	141	QuickBooks	5
ACCT&	201	Prin of Accounting I	5
BT	274	Business Writing for the Web	5
BUS&	101	Intro to Business	5
BUS&	201	Business Law	5
BUS	280	Human Relations in Business	5
CATT	191	Advanced PowerPoint	2.5
CMST	127	Leadership Development	3-5
CMST&	210	Interpersonal Communication	5
CMST	287	Business and Professional Communication	3-5
ECON	100	Fundamentals of Economics	5
MMGT	125	Social Media Marketing	5
MMGT	212	Retailing	5
MMGT	243	Fundamentals of Project Management	5

1 May be substituted with ACCT& 201.

2 May be substituted with BT 274.

3 May be substituted with MATH 201 or BUS 104.

4 May be substituted with MMGT 243 for BT 280 and CATT 242.

ADMINISTRATIVE/COMPUTER SPECIALIST: SFCC

Administrative/Computer Specialist
Associate in Applied Science

The Administrative Computer Specialist is a two–year program of study. Students may participate in online or on–ground classes. The beginning classes provide students with computer and information technology concepts and skills. Students also gain a foundation of business practices, marketing, accounting, and communication skills. Advanced classes continue to develop skills in Word, Excel, Access, PowerPoint, and Outlook. Additional course work includes studies in web design, networking, troubleshooting, and operating systems.

This program is designed to prepare students for careers as management information specialists, software support assistants, technicians, business assistants, and sales associates for hardware, software, and digital devices.

First Quarter

BT	106	Computing Essentials	5
BT	107	Business Communications [1]	5
BT	110	Strategies for Student Success	2
BUS	122	Practical Business Math	3
		Total	**15**

Second Quarter

BT	272	Business Correspondence	5
BUS&	101	Intro to Business	5
IS	103	Information Technology Fundamentals	5
		Total	**15**

Third Quarter

BUS	280	Human Relations in Business [2]	5
CAPPS	141	Word I	2
CAPPS	151	Excel I	2
CAPPS	152	Excel II	2
IS	210	Internet Programming I	3
		Total	**14**

Fourth Quarter

BT	258	Desktop Publishing	5
CAPPS	161	Access I	2
CAPPS	180	Outlook	2
IS	144	Programming Fundamentals	3
IS	162	Data Communications and Networks	3
		Total	**15**

Fifth Quarter

BT	255	Business Productivity Tools	3
BT	260	Administrative Office Management	5
CAPPS	162	Access II	2
IS	262	Network Management	5
		Total	**15**

Sixth Quarter

ACCT	103	Fundamental Bookkeeping Procedures	3
BT	160	Job Preparation Techniques	3
BT	201	Information Processing	5
BT	285	Administrative Professional Internship [3]	2
CAPPS	185	Digital Marketing Platforms [3]	3
		Total	**16**

90 credits are required for the Associate in Applied Science

1 BT 107 may be substituted with ENGL& 101 English Composition I.

2 BUS 280 may be substituted with CMST& 210 Interpersonal Communication.

3 BT 285 AND CAPPS 185 (5 credits) may be substituted with BT 234 Administrative Professional Practicum (5 credits).

AGRICULTURE: SCC

Agriculture Business
Associate in Applied Science

The Agriculture Business program is designed to train students for entry–level employment in the agricultural chemical and fertilizer industry as well as grain and farming operations. Program graduates are qualified for advancement into sales, service, field representative and branch management positions.

The following is a typical student schedule, individual student schedules may differ slightly depending on course availability. Courses may only be offered in the quarter indicated. It is recommended that students work closely with the program advisor when planning classes.

First Quarter

AGHRT	116	Green Industry Business Management [2]	5
AGHRT	184	AgHort Occupational Preparation [1]	1
CIS	110	Introduction to Computer Applications [3]	5
MMGT	101	Principles of Management	5
		Total	**16**

Second Quarter

AGHRT	101	Basic Crop Science [2]	5
AGHRT	185	AgHort Occupational Preparation [1]	1
BUS	103	Basic Business Math and Electronic Calculators	5
ENVS	210	Environmental Soil Science [2]	5
		Total	**16**

Third Quarter

AGHRT	104	Principles of Pest Management [2]	5
BUS	104	Business Mathematics [2]	5
ENVS	110	Plant Biology [2]	5
		Total	**15**

Fourth Quarter

AGHRT	102	Pesticides and Fertilizer Application Equipment [2]	2
ECON	100	Fundamentals of Economics [5]	5
ENGL&	101	English Composition I	5
		Total	**12**

Fifth Quarter

AGHRT	219	Soil Management and Fertility [2]	5
BUS	280	Human Relations in Business [2]	5
WATER	109	Introduction to Water Resources	5
		Total	**15**

Sixth Quarter

ACCT	151	College Accounting I	5
AGHRT	225	Weed Biology and Control	5
AGHRT	230	Plant Problem Diagnosis [2]	5
AGHRT	232	Pest Management Project [2]	2
		Total	**17**

91 credits are required for the Associate in Applied Science

1 AGHRT 185 and 184 are related education requirements.

2 Related education requirement.

3 Keyboard skills are required. Related education requirement.

4 This course may be substituted with ACCT& 201.

5 ECON may be substituted with a higher level ECON course.

Agriculture Business
Certificate

The Agriculture Business program is designed to train students for entry–level employment in the agricultural chemical and fertilizer industry as well as grain and farming operations. Program graduates are qualified for advancement into sales, service, field representative and branch management positions.

The following is a typical student schedule, individual student schedules may differ slightly depending on course availability. Courses may only be offered in the quarter indicated. It is recommended that students work closely with the program advisor when planning classes.

First Quarter

AGHRT	116	Green Industry Business Management [2]	5
AGHRT	184	AgHort Occupational Preparation [1]	1
CIS	110	Introduction to Computer Applications [3]	5
MMGT	101	Principles of Management	5
		Total	**16**

Second Quarter

AGHRT	101	Basic Crop Science [2]	5
AGHRT	185	AgHort Occupational Preparation [1]	1
BUS	103	Basic Business Math and Electronic Calculators	5
ENVS	210	Environmental Soil Science [2]	5
		Total	**16**

Third Quarter

AGHRT	104	Principles of Pest Management [2]	5
BUS	104	Business Mathematics [2]	5
ENVS	110	Plant Biology [2]	5
		Total	**15**

47 credits are required for the Certificate

1 AGHRT 185 and 184 are related education requirements.

2 Related education requirement.

3 Keyboard skills are required.

Agriculture Technology
Associate in Applied Science

The Agriculture Business program is designed to train students for entry–level employment in the agricultural chemical and fertilizer industry as well as grain and farming operations. Program graduates are qualified for advancement into sales, service, field representative and branch management positions.

The following is a typical student schedule, individual student schedules may differ slightly depending on course availability. Courses may only be offered in the quarter indicated. It is recommended that students work closely with the program advisor when planning classes.

First Quarter

AGHRT	184	AgHort Occupational Preparation [1]	1
ENVS	110	Plant Biology [2]	5
NATRS	112	Natural Resources Mathematical Applications [2]	5
NATRS	120	Basic Computer Applications in Natural Resources [2]	2
		Total	**13**

Second Quarter

AGHRT	101	Basic Crop Science [2]	5
AGHRT	185	AgHort Occupational Preparation [1]	1
NATRS	122	Natural Resources Trigonometric Applications [2]	5
NATRS	204	Maps and Aerial Photo Interpretation [2]	5
		Total	**16**

Third Quarter

AGHRT	104	Principles of Pest Management [2]	5
ENVS	210	Environmental Soil Science [2]	5
ENVS	220	Introduction to Geographic Information Systems for Natural Resources	5

NATRS	230	Global Positioning Systems	3
		Total	**18**

Fourth Quarter

AGHRT	102	Pesticides and Fertilizer Application Equipment [2]	2
AGHRT	116	Green Industry Business Management [2]	5
		Electives [3]	5
		Total	**12**

Fifth Quarter

AGHRT	219	Soil Management and Fertility [2]	5
NATRS	221	Applications in Geographic Information Systems	4
WATER	109	Introduction to Water Resources	5
		Total	**14**

Sixth Quarter

AGHRT	225	Weed Biology and Control	5
AGHRT	230	Plant Problem Diagnosis [2]	5
AGHRT	232	Pest Management Project [2]	2
		Electives [3]	5
		Total	**17**

90 credits are required for the Associate in Applied Science

1 AGHRT 184 and 185 are related education requirements.

2 Related education requirements.

3 Electives may include any liberal arts, career, or technical course number 100 or higher.

Agriculture Technology
Certificate

The Agriculture Business program is designed to train students for entry–level employment in the agricultural chemical and fertilizer industry as well as grain and farming operations. Program graduates are qualified for advancement into sales, service, field representative and branch management positions.

The following is a typical student schedule, individual student schedules may differ slightly depending on course availability. Courses may only be offered in the quarter indicated. It is recommended that students work closely with the program advisor when planning classes.

First Quarter

AGHRT	184	AgHort Occupational Preparation [1]	1
ENVS	110	Plant Biology [2]	5
NATRS	112	Natural Resources Mathematical Applications [2]	5
NATRS	120	Basic Computer Applications in Natural Resources [2]	2
		Total	**13**

Second Quarter

AGHRT	101	Basic Crop Science [2]	5
AGHRT	185	AgHort Occupational Preparation [1]	1
NATRS	122	Natural Resources Trigonometric Applications [2]	5
NATRS	204	Maps and Aerial Photo Interpretation [2]	5
		Total	**16**

Third Quarter

AGHRT	104	Principles of Pest Management [2]	5
ENVS	210	Environmental Soil Science [2]	5
ENVS	220	Introduction to Geographic Information Systems for Natural Resources	5
NATRS	230	Global Positioning Systems [2]	3
		Total	**18**

47 credits are required for the Certificate

1 AGHRT 184 and 185 are related education requirements.

2 Related education requirements.

Spray Technician
Certificate

The Agriculture Business program is designed to train students for entry–level employment in the agricultural chemical and fertilizer industry as well as grain and farming operations. Program graduates are qualified for advancement into sales, service, field representative and branch management positions.

The following is a typical student schedule, individual student schedules may differ slightly depending on course availability. Courses may only be offered in the quarter indicated. It is recommended that students work closely with the program advisor when planning classes.

First Quarter

AGGEN	156	Equipment Operation and Maintenance	2
AGHRT	102	Pesticides and Fertilizer Application Equipment [1]	2
AGHRT	104	Principles of Pest Management	5
		Total	**9**

9 credits are required for the Certificate

1 Students are advised to check with the instructional dean to determine which quarter this course will be offered.

APPLIED MANAGEMENT IN MANUFACTURING, ENTREPRENEURSHIP, OR HEALTHCARE: SFCC

Bachelor of Applied Science – Applied Management

The BASAM builds on technical skills that entering students bring from their associate degrees (90 credits), adding theoretical knowledge, general education, and business management skills. The BASAM is designed to meet current and anticipated demand for qualified managers across a wide array of industries. Successful graduates of Bachelor of Applied Science (BAS) in Applied Management (AM) degree will be able to:

- Adapt effective communication skills across all levels of the organization and to diverse audiences, using language, tools, concepts and managerial principles necessary to achieve desired outcomes within specific professional contexts (e.g., healthcare management or manufacturing).
- Identify and appraise human behavior and psychology in an organizational setting.
- Think critically and creatively when making decisions within a managerial context.
- Integrate sound ethical principles related to managerial behaviors.
- Develop and/or improve management and leadership strategies within the organizational contexts.
- Successfully analyze and synthesize information for effective planning and decision–making.
- Facilitate a group–or team–based approach to problem solving.

- Apply the principles of successful human resource development to design programs which maximize the human potential within the organization.
- Apply ethical and legal principles related to employee relationships to improve organizational outcomes.
- Apply the principles of accounting and financial management to solve problems within the organizational context.
- Demonstrate competence in current and emerging information technologies.

Within the four years of an applied baccalaureate degree, general education credits must include a minimum of:

- Ten (10) credits of communication skills, including one English composition course, e.g. ENGL& 101;
- Five (5) credits of quantitative/symbolic reasoning skills;
- Ten (10) credits of humanities;
- Ten (10) credits of social sciences;
- Ten (10) credits of natural science, including at least five (5) credits in physical, biological and/or earth sciences, including at least one course with a lab.
- 15 credits of remaining general education courses to achieve the required 60 credits.

Typically, at least 15 general education credits are satisfied at the associate degree level as confirmed by entrance pre–requisites, and the remaining 45 credits are satisfied with courses in quantitative skills, humanities, social sciences and natural sciences. General education requirements and courses recommendation are outlined in the following table.

Courses

		AA or AAS Degree	90
		Total	**90**

First Quarter

BMGT	341	Applied Principles of Management	5
ENGL	335	Technical and Professional Writing	5
		Computation Elective Group	5
		Total	**15**

Second Quarter

BMGT	342	Project Management	5
CMST	430	Organizational Communication	5
		Non-Lab Science [1]	5
		Total	**15**

Third Quarter

CMST	227	Intercultural Communication	5
CMST	320	Professional Communication	5
		Lab Science [1]	5
		Total	**15**

Fourth Quarter

ACCT	320	Accounting and Finance for Managers	5
PHIL	330	Professional Ethics	5
PSYC	333	Motivation	5
		Total	**15**

Fifth Quarter

BMGT	344	Business Information Systems	5
BMGT	428	Human Resource Management	5
		Fifth Quarter Management Elective Group	5
		Total	**15**

Sixth Quarter

BMGT	325	Legal Issues for Managers	5
BMGT	491	Capstone Project	5
		Sixth Quarter Management Elective Group	5
		Total	**15**

180 credits are required for the Bachelor of Applied Science

Computation Elective Group

MATH&	107	Math in Society	5
MATH	201	Introduction to Finite Mathematics	5
MATH	300	Mathematical Modeling for Applied Science	5

Fifth Quarter Management Elective Group

BMGT	343	Logistics and Inventory Control	5
BMGT	350	Marketing for Managers	5

Lab Science

BIOL	100	Environmental Biology	5
PHYS	100	Introductory Physics	5

Non–Lab Science

ASTR&	100	Survey of Astronomy	5
GEOL	116	Environmental Geology	5

Sixth Quarter Management Elective Group

BMGT	430	Manufacturing Management	5

[1] Other options may be taken from the AA Science distribution list. Please see advisor for questions regarding Lab Science options.

APPRENTICESHIPS: SCC

Multi-Occupational Trades
Associate in Applied Science

The primary function of the Multi–Occupational Trades apprenticeship program is to train and produce journey–level workers who meet the stringent requirements of each individual trade. This is accomplished through a combination of technical skills obtained in an approved apprenticeship program (a minimum of 6,000 clock hours); the theory and practical applications learned in apprenticeship–related courses (450 clock hours); and instruction received in related education and elective courses.

This program is open only to apprentices enrolled in a local JATC–approved apprenticeship training program. Verification of completion of an apprenticeship program by the JATC is required before submission of the petition for graduation. The combined total of 23–25 program credits, 6000 OJT hours, and 450 hours of related training will meet the 30–hour residency requirements of AAS degree candidates.

Courses

		450 Theory Clock Hours	0
		6000 Technical Clock Hours	0
		Elective [1]	10
		Related Education [2]	13-15
		Total	**23–25**

23-25 credits are required for the Associate in Applied Science

Elective [1]

CIS	110	Introduction to Computer Applications	5
MMGT	205	Small Business Planning	5

Related Education [2]

APLED	112	Applied Mathematics	3-4

APLED	121	Applied Written Communication	4
APLED	123	Leadership Skills for Business and Industry	3-4
APLED	125	Employment Preparation	3

1 These are recommended electives. Substitutions must be approved by the JATC.
2 These related education requirements may be met by any course or combination of courses approved for substitution by the instructional dean.

Utility Construction pre-Apprenticeship (Gas or Line) Certificate

Gas Construction
Participants learn the skills required of a gas crew helper including how to excavate around buried utilities, install polyethylene gas pipeline, pipeline fittings, locate wire, and residential gas meters and regulators in addition to learning to use the various tools and equipment of the trade though actual field experience. Classroom training covers safety, electrical theory, fundamentals of heating gases that range from Natural gas to Propane, trenching and shoring requirements, locating of underground pipeline, and the importance of attitude and integrity necessary to succeed in today's work environment.

Line Construction
Participants learn the skills required of a line crew helper including how to set and climb poles, install cross–arms, hardware, lines and transformers in addition to learning to use the various tools and equipment of the trade through actual field experience. Classroom training covers safety, electrical theory, transformers, switching, print reading, and the importance of attitude and teamwork necessary to succeed in today's work environment.

First Quarter

UTIL	101	Utility Construction I	11
UTIL	102	Utility Construction II	11
UTIL	103	Gas or Line Construction	21
		Total	**43**

43 credits are required for the Certificate

ARCHITECTURE: SCC

Architectural Technology
Associate in Applied Science–Transfer

The Architectural Technology program prepares students to become CAD drafters for the building design industry. Students focus on gaining proficiency with Computer Aided Drafting (CAD), 3–D modeling and Building Information Modeling (BIM) applications utilizing principles of design, the design process, building codes and building materials as they relate to building projects. This program prepares the drafter to translate ideas, rough sketches, specifications, calculations and existing drawings into drawings used within each phase of the design and construction process.

Students enter the program in the fall quarter. Program classes are typically held 7:30 a.m. –2:30 or 3:30 p.m., Monday through Thursday. Please note that the classes listed below are intended for program students only. Other students are only allowed to register upon the approval of the instructor after prerequisites have been met. Students are expected to do a significant amount of reading and should be able to work at a computer for seven hours per day.

The first year consists of developing residential building design drawings and documents used by architects and building design engineers. Students use the most commonly used software utilized in the building design industry to gain proficiency in 2–D and 3–D Computer Aided Drafting (CAD). In addition, the first year consists of manual drafting, orthographic projections, freehand sketching, presentation graphics (isometric and perspective pictorial drawing), light construction principles (materials and methods), use of drafting expressions, international residential codes and sustainability issues. Emphasis is placed on architectural construction documents, which include site plans, floor plans, roof plans, footing and foundation plans, framing plans, exterior elevations, building and wall sections, window and door schedules, stair design, interior elevations, details and plumbing, HVAC, electrical and lighting plans. Graphic representation using computer software is used in the production of documents of the common phrases of architectural design including programming, schematic design, design development and construction documents. Utilization of the above is finalized in the development of residential working drawings.

Students will receive a Residential Architectural Technology Certificate after completing the first three quarters of the AAS degree. Prior to taking courses in this program, students in this program who intend to further their education at a university should consult an academic advisor at SCC or their future university to determine which of the courses in this program are transferable to their intended university. Students who want to continue on in the second year will be permitted to do so and upon successful completion of the second year, will receive an AAS degree. Additionally, students who want an AAS–T transfer degree may take five additional SCC courses and are eligible to apply for acceptance into Washington State University Architecture program with a junior standing. A 3.0 GPA or higher is required in all courses for acceptance at WSU. Prior to taking courses in this program, students in this program who intend to further their education at a university should consult an academic advisor at SCC or their future university.

The second year consists of developing architectural working drawings using Computer Aided Drafting (CAD) and Building Information Modeling (BIM) related to commercial building design. Class projects will be developed from a preliminary design utilizing drafting techniques, standards and practices of the profession, including office procedure knowledge, use of building materials; structural framing systems as used in the building industry and study of the International Building Code.

First Quarter

ARCHT	112	Introduction to Architectural Drafting	5
ARCHT	120	Residential Architecture Theory	5
ARCHT	126	Introduction to Computer Aided Drafting	5
		Total	**15**

Second Quarter

ARCHT	122	Architectural Design 1	7
ARCHT	130	Residential Building Materials	4
ARCHT	134	Electrical and Mechanical Systems	4
ART&	100	Art Appreciation	5
		Total	**20**

Third Quarter

ARCHT	125	Residential Building Codes	2
ARCHT	132	Introduction to Construction Documents/CAD	8
ARCHT	139	Delineation	5
MATH&	141	Precalculus I [1]	5
		Total	**20**

Fourth Quarter

ARCHT	238	Introduction to Commercial Drafting/Design	6
ARCHT	242	Commercial Construction Documents/CAD	4

ARCHT	246	Commercial Architecture Theory	5
PHYS	101	General Physics	5
		Total	**20**

Fifth Quarter

ARCHT	225	Portfolio	1
ARCHT	240	Commercial Building Codes	3
ARCHT	250	Introduction to Commercial Building Materials	4
ARCHT	252	Advanced Commercial Construction Documents/CAD	8
ENGL&	101	English Composition I	5
		Total	**21**

Sixth Quarter

ARCHT	215	Issues in Sustainable Architecture	5
ARCHT	262	Electrical Mechanical Systems Application/CAD	6
ARCHT	263	Advanced Commercial Building Materials	4
CMST&	220	Public Speaking	5
		Total	**20**

116 credits are required for the Associate in Applied Science–Transfer

[1] MATH& 141 is a prerequisite of PHYS 101 and must have been completed with a 2.0 or better.

Architectural Technology
Associate in Applied Science

The Architectural Technology program prepares students to become CAD drafters for the building design industry. Students focus on gaining proficiency with Computer Aided Drafting (CAD), 3–D modeling and Building Information Modeling (BIM) applications utilizing principles of design, the design process, building codes and building materials as they relate to building projects. This program prepares the drafter to translate ideas, rough sketches, specifications, calculations and existing drawings into drawings used within each phase of the design and construction process.

Students enter the program in the fall quarter. Program classes are typically held 7:30 a.m. –2:30 or 3:30 p.m., Monday through Thursday. Please note that the classes listed below are intended for program students only. Other students are only allowed to register upon the approval of the instructor after prerequisites have been met. Students are expected to do a significant amount of reading and should be able to work at a computer for seven hours per day.

The first year consists of developing residential building design drawings and documents used by architects and building design engineers. Students use the most commonly used software utilized in the building design industry to gain proficiency in 2–D and 3–D Computer Aided Drafting (CAD). In addition, the first year consists of manual drafting, orthographic projections, freehand sketching, presentation graphics (isometric and perspective pictorial drawing), light construction principles (materials and methods), use of drafting expressions, international residential codes and sustainability issues. Emphasis is placed on architectural construction documents, which include site plans, floor plans, roof plans, footing and foundation plans, framing plans, exterior elevations, building and wall sections, window and door schedules, stair design, interior elevations, details and plumbing, HVAC, electrical and lighting plans. Graphic representation using computer software is used in the production of documents of the common phrases of architectural design including programming, schematic design, design development and construction documents. Utilization of the above is finalized in the development of residential working drawings.

Students will receive a Residential Architectural Technology Certificate after completing the first three quarters of the AAS degree. Prior to taking courses in this program, students in this program who intend to further their education at a university should consult an academic advisor at SCC or their future university to determine which of the courses in this program are transferable to their intended university. Students who want to continue on in the second year will be permitted to do so and upon successful completion of the second year, will receive an AAS degree. Additionally, students who want an AAS–T transfer degree may take five additional SCC courses and are eligible to apply for acceptance into Washington State University Architecture program with a junior standing. A 3.0 GPA or higher is required in all courses for acceptance at WSU. Prior to taking courses in this program, students in this program who intend to further their education at a university should consult an academic advisor at SCC or their future university.

The second year consists of developing architectural working drawings using Computer Aided Drafting (CAD) and Building Information Modeling (BIM) related to commercial building design. Class projects will be developed from a preliminary design utilizing drafting techniques, standards and practices of the profession, including office procedure knowledge, use of building materials; structural framing systems as used in the building industry and study of the International Building Code.

First Quarter

ARCHT	112	Introduction to Architectural Drafting	5
ARCHT	120	Residential Architecture Theory [1]	5
ARCHT	126	Introduction to Computer Aided Drafting	5
		Total	**15**

Second Quarter

ARCHT	114	Architectural Math [2]	3
ARCHT	122	Architectural Design 1 [1]	7
ARCHT	130	Residential Building Materials [1]	4
ARCHT	134	Electrical and Mechanical Systems [1]	4
		Total	**18**

Third Quarter

ARCHT	124	Advanced Architectural Math [2]	2
ARCHT	125	Residential Building Codes [1]	2
ARCHT	132	Introduction to Construction Documents/CAD	8
ARCHT	139	Delineation	5
		Total	**17**

Fourth Quarter

ARCHT	238	Introduction to Commercial Drafting/Design	6
ARCHT	242	Commercial Construction Documents/CAD	4
ARCHT	246	Commercial Architecture Theory	5
		Total	**15**

Fifth Quarter

ARCHT	225	Portfolio	1
ARCHT	240	Commercial Building Codes	3
ARCHT	250	Introduction to Commercial Building Materials	4
ARCHT	252	Advanced Commercial Construction Documents/CAD	8
		Total	**16**

Sixth Quarter

ARCHT	215	Issues in Sustainable Architecture	5

ARCHT	262	Electrical Mechanical Systems Application/CAD [3]	6
ARCHT	263	Advanced Commercial Building Materials [4]	4
		Total	**15**

96 credits are required for the Associate in Applied Science

Elective

ARCHT	266	Cooperative Education Seminar	1-2
ARCHT	267	Cooperative Education Work Experience	1-18

1 This related education requirement may be met by any course or combination of courses approved by the instructional dean.
2 ARCHT 114 and ARCHT 124 may be substituted with COMPASS scores of M2=77, M3=60, and M4=44. Students meeting these test score requirements and seeking Prior Learning Assessment evaluation should work with their instructor and the Prior Learning Assessment area for credit evaluation.
3 Select ARCHT 262 for either 6 credits and no elective credits or 2–4 credits with the remainder of the 6 credits from the elective group consisting of: ARCHT 266,267 for a total of 15 required credits for the sixth quarter.
4 ARCHT 266 and ARCHT 267 or ARCHT 288 (no seminar) may be substituted for one or more of these courses with permission of the instructor.

Architectural Technology Certificate

The Architectural Technology program prepares students to become CAD drafters for the building design industry. Students focus on gaining proficiency with Computer Aided Drafting (CAD), 3–D modeling and Building Information Modeling (BIM) applications utilizing principles of design, the design process, building codes and building materials as they relate to building projects. This program prepares the drafter to translate ideas, rough sketches, specifications, calculations and existing drawings into drawings used within each phase of the design and construction process.

Students enter the program in the fall quarter. Program classes are typically held 7:30 a.m. –2:30 or 3:30 p.m., Monday through Thursday. Please note that the classes listed below are intended for program students only. Other students are only allowed to register upon the approval of the instructor after prerequisites have been met. Students are expected to do a significant amount of reading and should be able to work at a computer for seven hours per day.

The first year consists of developing residential building design drawings and documents used by architects and building design engineers. Students use the most commonly used software utilized in the building design industry to gain proficiency in 2–D and 3–D Computer Aided Drafting (CAD). In addition, the first year consists of manual drafting, orthographic projections, freehand sketching, presentation graphics (isometric and perspective pictorial drawing), light construction principles (materials and methods), use of drafting expressions, international residential codes and sustainability issues. Emphasis is placed on architectural construction documents, which include site plans, floor plans, roof plans, footing and foundation plans, framing plans, exterior elevations, building and wall sections, window and door schedules, stair design, interior elevations, details and plumbing, HVAC, electrical and lighting plans. Graphic representation using computer software is used in the production of documents of the common phrases of architectural design including programming, schematic design, design development and construction documents. Utilization of the above is finalized in the development of residential working drawings.

Students will receive a Residential Architectural Technology Certificate after completing the first three quarters of the AAS degree. Prior to taking courses in this program, students in this program who intend to further their education at a university should consult an academic advisor at SCC or their future university to determine which of the courses in this program are transferable to their intended university. Students who want to continue on in the second year will be permitted to do so and upon successful completion of the second year, will receive an AAS degree. Additionally, students who want an AAS–T transfer degree may take five additional SCC courses and are eligible to apply for acceptance into Washington State University Architecture program with a junior standing. A 3.0 GPA or higher is required in all courses for acceptance at WSU. Prior to taking courses in this program, students in this program who intend to further their education at a university should consult an academic advisor at SCC or their future university.

The second year consists of developing architectural working drawings using Computer Aided Drafting (CAD) and Building Information Modeling (BIM) related to commercial building design. Class projects will be developed from a preliminary design utilizing drafting techniques, standards and practices of the profession, including office procedure knowledge, use of building materials; structural framing systems as used in the building industry and study of the International Building Code.

First Quarter

ARCHT	112	Introduction to Architectural Drafting [1]	5
ARCHT	120	Residential Architecture Theory	5
ARCHT	126	Introduction to Computer Aided Drafting	5
		Total	**15**

Second Quarter

ARCHT	114	Architectural Math [2]	3
ARCHT	122	Architectural Design 1 [1]	7
ARCHT	130	Residential Building Materials [1]	4
ARCHT	134	Electrical and Mechanical Systems [1]	4
		Total	**18**

Third Quarter

ARCHT	124	Advanced Architectural Math [2]	2
ARCHT	125	Residential Building Codes [1]	2
ARCHT	132	Introduction to Construction Documents/CAD	8
ARCHT	139	Delineation	5
		Total	**17**

50 credits are required for the Certificate

1 This related education requirement may be met by any course or combination of courses approved by the instructional dean.
2 ARCHT 114 and ARCHT 124 may be substituted with COMPASS scores of M2=77, M3=60, and M4=44. Students meeting these test score requirements and seeking Prior Learning Assessment evaluation should work with their instructor and the Prior Learning Assessment area for credit evaluation.

AUDIO ENGINEERING: SFCC

Audio Engineering
Associate in Applied Science

The objective of this program is to prepare students for entry–level jobs and for self–employment in the entertainment industry in the areas of audio production, recording, live sound engineering and as broadcast and audio equipment technicians.

The certificate and first year of the AAS degree provides a basic understanding of the music technology/audio engineering field. Students learn principles and procedures of studio recording live sound reinforcement, location recording, basic principles of synthesis and MIDI technology and gain a thorough understanding of the delivery formats used in music production. Students also receive training on state of the art digital audio workstations. Starting the first year and again in the second year of study, each student completes a major studio–recording project that involves recording, editing and mixing a student or professional band and culminates in developing an audio portfolio for inclusion in their professional resume. The first year also includes basic music theory, functional piano skills and study of the business aspects of the music and entertainment industries.

The second year of the degree program provides intensive study of digital audio workstations as well as advanced study and implementation of recording techniques and live sound engineering as students develop their recording, editing and mixing skills. Students will also hone their audio production skills with classes in advanced MIDI production and arrangement techniques, contemporary harmony, song writing and scoring for film, TV and multi–media. System set up and maintenance is also addressed in the second year providing students with an understanding of electronics and maintenance procedures relative to the recording industry. Finally, in the sixth quarter of study, students participate in an audio internship where they gain experience working on location at a professional recording studio, post–production facility or live sound venue.

Admission Requirements

- Admission to Audio Engineering requires students to complete an application process, which includes a college application, placement scores in reading, writing and math, an essay and an interview. So long as there is room in the program, ALL students who complete the application process are admitted. If the number of applicants exceeds the number of available slots, students are selected for admission based on their placement scores (reading, writing, and math), knowledge of audio engineering and music, communication skills (written and spoken) and goals. For detailed information regarding the application process, visit the Audio Engineering website and see tab labeled "Apply".

First Quarter

AUDIO	116	Music Basics for Audio Professionals [1]	5
AUDIO	117	Introduction to Music Technology	4
AUDIO	155	Introduction to Recording	5
MUSC	166	Functional Piano I [2]	2
		Total	**16**

Second Quarter

AUDIO	113	Live Sound and Location Recording I	3
AUDIO	120	Digital Audio I	4
MUSC	114	Contemporary Harmony	3
MUSC	167	Functional Piano II [2]	2
		Computation Related Instruction Requirement [4]	5
		Total	**17**

Third Quarter

AUDIO	121	Digital Audio II	4
AUDIO	151	Audio Project I	1
AUDIO	156	Audio Engineering I	4
		Human Relations/Leadership Related Instruction Req [4]	5
		Total	**14**

Fourth Quarter

AUDIO	213	Live Sound II	4
AUDIO	217	System Setup and Maintenance	3
AUDIO	218	Digital Audio III	5
MUSC	214	Contemporary Harmony II/Songwriting	5
		Total	**17**

Fifth Quarter

AUDIO	205	MIDI Arranging	5
AUDIO	219	Digital Audio IV	5
AUDIO	255	Audio Engineering II	4
		Communication Related Instruction Requirement [4]	5
		Total	**19**

Sixth Quarter

AUDIO	206	Scoring for Film and Multi-Media [3]	5
AUDIO	220	Digital Audio V	5
AUDIO	251	Audio Projects II	1
AUDIO	260	Audio Portfolio	1
AUDIO	266	Cooperative Education Seminar	1
AUDIO	267	Cooperative Education Work Experience	1-3
		Total	**14–16**

97-99 credits are required for the Associate in Applied Science

Communication Related Instruction Requirement

CMST&	101	Introduction to Communication	5
CMST	121	Job Communication Skills	5
CMST&	210	Interpersonal Communication	5
CMST	226	Gender Communication	5
CMST	227	Intercultural Communication	5
ENGL&	101	English Composition I	5
JOURN	220	Introduction to News Writing	5

Computation Related Instruction Requirement

BUS	104	Business Mathematics	5
BUS	123	Practical Business Math Applications	5
MATH&	107	Math in Society	5
MATH	87	Algebra for Math Literacy I	5
MATH	90	Pre-Algebra	5
MATH	93	Algebra I	5
MATH	94	Algebra II	5
MATH	98	Algebra III	5

Human Relations/Leadership Related Instruction Req

ANTH&	206	Cultural Anthropology	5
AUDIO	159	Business of Music	5
BUS	280	Human Relations in Business	5
HS	136	Improving Interpersonal Communication	5
HUM	107	Introduction to Cultural Studies	5
MMGT	101	Principles of Management	5
MMGT	125	Social Media Marketing	5
POLS	125	Introduction to Global Issues	5
PSYC&	100	General Psychology	5
SOC&	101	Intro to Sociology	5
SOC&	201	Social Problems	5

SOC	221	Race and Ethnic Relations	5
SOC	230	Sociology of Gender	5

1 AUDIO 116 may be substituted with MUSC& 141.

2 Please consult with AUDIO faculty advisor prior to selecting course in functional piano.

3 AUDIO 206 may be substituted with AUDIO 256.

4 A minimum of 5 credits of related instruction must be taken in each area of competency; Communications, Computation, Human Relations/Leadership. Please consult with faculty advisor prior to selecting related instruction courses. A class cannot be used to fulfill more than one area.

Audio Engineering
Certificate

The objective of this program is to prepare students for entry–level jobs and for self–employment in the entertainment industry in the areas of audio production, recording, live sound engineering and as broadcast and audio equipment technicians.

The certificate and first year of the AAS degree provides a basic understanding of the music technology/audio engineering field. Students learn principles and procedures of studio recording live sound reinforcement, location recording, basic principles of synthesis and MIDI technology and gain a thorough understanding of the delivery formats used in music production. Students also receive training on state of the art digital audio workstations. Starting the first year and again in the second year of study, each student completes a major studio–recording project that involves recording, editing and mixing a student or professional band and culminates in developing an audio portfolio for inclusion in their professional resume. The first year also includes basic music theory, functional piano skills and study of the business aspects of the music and entertainment industries.

The second year of the degree program provides intensive study of digital audio workstations as well as advanced study and implementation of recording techniques and live sound engineering as students develop their recording, editing and mixing skills. Students will also hone their audio production skills with classes in advanced MIDI production and arrangement techniques, contemporary harmony, song writing and scoring for film, TV and multi–media. System set up and maintenance is also addressed in the second year providing students with an understanding of electronics and maintenance procedures relative to the recording industry. Finally, in the sixth quarter of study, students participate in an audio internship where they gain experience working on location at a professional recording studio, post–production facility or live sound venue.

Admission Requirements

- Admission to Audio Engineering requires students to complete an application process, which includes a college application, placement scores in reading, writing and math, an essay and an interview. So long as there is room in the program, ALL students who complete the application process are admitted. If the number of applicants exceeds the number of available slots, students are selected for admission based on their placement scores (reading, writing, and math), knowledge of audio engineering and music, communication skills (written and spoken) and goals. For detailed information regarding the application process, visit the Audio Engineering website and see tab labeled "Apply".

First Quarter

AUDIO	116	Music Basics for Audio Professionals [1]	5
AUDIO	117	Introduction to Music Technology	4
AUDIO	155	Introduction to Recording	5
MUSC	166	Functional Piano I [2]	2
		Total	**16**

Second Quarter

AUDIO	113	Live Sound and Location Recording I	3
AUDIO	120	Digital Audio I	4
MUSC	114	Contemporary Harmony	3
MUSC	167	Functional Piano II	2
		Total	**12**

Third Quarter

AUDIO	121	Digital Audio II	4
AUDIO	151	Audio Project I	1
AUDIO	156	Audio Engineering I	4
		Program Elective - See advisor for options	3
		Total	**12**

40 credits are required for the Certificate

1 AUDIO 116 may be substituted with MUSC& 141.

2 Please consult with AUDIO faculty advisor prior to selecting course in functional piano.

AUTOMOTIVE COLLISION AND REFINISHING: SCC

Automotive Collision and Refinishing Technician
Associate in Applied Science

The Automotive Collision and Refinishing Technician program teaches the skills necessary to succeed in the automotive collision repair industry. Instruction is primarily in a shop situation where field conditions are simulated. Students are able to learn by demonstration and direct hands on experience.

Students are instructed in a wide range of skills, including welding, sheet metal repair and replacement, fabrication and restoration techniques, frame and unibody repair, as well as repair and replacement of structural components.

The refinishing portion of our program provides students with a comprehensive education in modern refinishing techniques and materials, as well as material and damage estimation. Students will learn all phases of substrate preparation, color matching and application of the latest paint materials including water born products.

Students must complete each ABF and related course with a 2.0 grade or better before advancing to subsequent quarters.

First Quarter

ABF	111	Shop Procedures Lab	3
ABF	115	Basic Metal Straightening and Panel Alignment Lab	3
ABF	116	Parts Identification Lab	2
ABF	117	Automotive Collision MIG Welding	3
ABF	211	Shop Procedures	1
ABF	215	Basic Metal Straightening and Panel Alignment	1
ABF	216	Parts Identification	1
APLED	113	Introduction to Computers for Technology [1]	2
		Total	**16**

Second Quarter

ABF	112	Introduction to Unibody Lab	5
ABF	212	Introduction to Unibody	2

ABF	244	Advanced Metal Straightening and Panel Alignment Methods Lab	6
ABF	247	Advanced Metal Straightening and Panel Replacement Methods	1
APLED	112	Applied Mathematics [1]	4
		Total	**18**

Third Quarter

ABF	123	Major Panel Replacement Lab	4
ABF	124	Mechanical Components Lab	3
ABF	125	Major Unibody and Frame Repair Lab	4
ABF	127	Major Panel Replacement	1
ABF	224	Mechanical Components	1
ABF	225	Major Unibody and Frame Repair	1
APLED	121	Applied Written Communication [1]	4
		Total	**18**

Fourth Quarter

ABF	133	Introduction to Industrial Safety and Hygiene Lab	1
ABF	134	Introduction to Interior and Exterior Surface Preparation Lab	2
ABF	135	Basic Polishing and Detailing	3
ABF	136	Introduction to Topcoat Systems and Application Procedures Lab	2
ABF	137	Basic Color Matching and Paint Mixing Fundamentals	3
ABF	233	Introduction to Industrial Safety and Hygiene	1
ABF	234	Introduction to Interior and Exterior Surface Preparation	1
ABF	236	Introduction to Topcoat Systems and Application Procedures	1
APLED	123	Leadership Skills for Business and Industry [1]	3
		Total	**17**

Fifth Quarter

ABF	138	Intermediate Interior and Exterior Surface Preparation Lab	3
ABF	139	Intermediate Paint Application, Color Matching, and Paint Mixing Lab	3
ABF	140	Materials and Cost Estimation Lab	2
ABF	141	Intermediate Finessing, Compounding, and Detailing	3
ABF	238	Intermediate Interior and Exterior Surface Preparation	1
ABF	239	Intermediate Paint Application, Color Matching, and Paint Mixing	1
ABF	240	Materials and Cost Estimation	1
APLED	125	Employment Preparation [1]	3
		Total	**17**

Sixth Quarter

ABF	270	Sheet Metal Restoration Welding Lab	3
ABF	271	Sheet Metal Shaping Lab	3
ABF	272	Bucks and Forms Lab	2
ABF	273	Sheet Metal and Restoration and Repair	3
ABF	275	Sheet Metal Restoration Welding	1
ABF	276	Sheet Metal Shaping	1
ABF	277	Bucks and Forms	1
		Total	**14**

Seventh Quarter

		Optional Summer Suspension Courses [2]	0-8
		Total	**0–8**

100-108 credits are required for the Associate in Applied Science

[1] This related education requirement may be met by any course or combination of courses approved by the instructional dean. APLED 133 should be taking in first quarter, APLED 112 in second quarter, APLED 121 in third quarter, APLED 123 in fourth quarter, and APLED 125 in fifth quarter regardless of what quarter a student begins the program.

[2] AUTO 131 and 132 for Automotive Collision and Refinishing Technician students desiring to receive additional training in suspension may be taken during the summer quarter either after the 3rd or 6th quarter. Instructor permission required. Completion of these courses will entitle the student to a certificate of completion issued by the dean of instruction for technical education.

Automotive Collision Technician Certificate

The Automotive Collision and Refinishing Technician program teaches the skills necessary to succeed in the automotive collision repair industry. Instruction is primarily in a shop situation where field conditions are simulated. Students are able to learn by demonstration and direct hands on experience.

Students are instructed in a wide range of skills, including welding, sheet metal repair and replacement, fabrication and restoration techniques, frame and unibody repair, as well as repair and replacement of structural components.

The refinishing portion of our program provides students with a comprehensive education in modern refinishing techniques and materials, as well as material and damage estimation. Students will learn all phases of substrate preparation, color matching and application of the latest paint materials including water born products.

Students must complete each ABF and related course with a 2.0 grade or better before advancing to subsequent quarters.

First Quarter

ABF	111	Shop Procedures Lab	3
ABF	115	Basic Metal Straightening and Panel Alignment Lab	3
ABF	116	Parts Identification Lab	2
ABF	117	Automotive Collision MIG Welding	3
ABF	211	Shop Procedures	1
ABF	215	Basic Metal Straightening and Panel Alignment	1
ABF	216	Parts Identification	1
APLED	112	Applied Mathematics [1]	4
		Total	**18**

Second Quarter

ABF	112	Introduction to Unibody Lab	5
ABF	212	Introduction to Unibody	2
ABF	244	Advanced Metal Straightening and Panel Alignment Methods Lab	6
ABF	247	Advanced Metal Straightening and Panel Replacement Methods	1
APLED	121	Applied Written Communication [1]	4
		Total	**18**

Third Quarter

ABF	123	Major Panel Replacement Lab	4
ABF	124	Mechanical Components Lab	3
ABF	125	Major Unibody and Frame Repair Lab	4
ABF	127	Major Panel Replacement	1
ABF	224	Mechanical Components	1
ABF	225	Major Unibody and Frame Repair	1
APLED	125	Employment Preparation	3
		Total	**17**

53 credits are required for the Certificate

[1] This related education requirement may be met by any course or combination of courses approved by the instructional dean.

Automotive Refinishing Technician Certificate

The Automotive Collision and Refinishing Technician program teaches the skills necessary to succeed in the automotive collision repair industry. Instruction is primarily in a shop situation where field conditions are simulated. Students are able to learn by demonstration and direct hands on experience.

Students are instructed in a wide range of skills, including welding, sheet metal repair and replacement, fabrication and restoration techniques, frame and unibody repair, as well as repair and replacement of structural components.

The refinishing portion of our program provides students with a comprehensive education in modern refinishing techniques and materials, as well as material and damage estimation. Students will learn all phases of substrate preparation, color matching and application of the latest paint materials including water born products.

Students must complete each ABF and related course with a 2.0 grade or better before advancing to subsequent quarters.

First Quarter

ABF	133	Introduction to Industrial Safety and Hygiene Lab	1
ABF	134	Introduction to Interior and Exterior Surface Preparation Lab	2
ABF	135	Basic Polishing and Detailing	3
ABF	136	Introduction to Topcoat Systems and Application Procedures Lab	2
ABF	137	Basic Color Matching and Paint Mixing Fundamentals	3
ABF	233	Introduction to Industrial Safety and Hygiene	1
ABF	234	Introduction to Interior and Exterior Surface Preparation	1
ABF	236	Introduction to Topcoat Systems and Application Procedures	1
APLED	112	Applied Mathematics [1]	4
		Total	**18**

Second Quarter

ABF	138	Intermediate Interior and Exterior Surface Preparation Lab	3
ABF	139	Intermediate Paint Application, Color Matching, and Paint Mixing Lab	3
ABF	140	Materials and Cost Estimation Lab [1]	2
ABF	141	Intermediate Finessing, Compounding, and Detailing	3
ABF	238	Intermediate Interior and Exterior Surface Preparation	1
ABF	239	Intermediate Paint Application, Color Matching, and Paint Mixing	1
ABF	240	Materials and Cost Estimation	1
APLED	121	Applied Written Communication [1]	4
		Total	**18**

36 credits are required for the Certificate

[1] This related education requirement may be met by any course or combination of courses approved by the instructional dean.

Restoration and Fabrication Certificate

The Automotive Collision and Refinishing Technician program teaches the skills necessary to succeed in the automotive collision repair industry. Instruction is primarily in a shop situation where field conditions are simulated. Students are able to learn by demonstration and direct hands on experience.

Students are instructed in a wide range of skills, including welding, sheet metal repair and replacement, fabrication and restoration techniques, frame and unibody repair, as well as repair and replacement of structural components.

The refinishing portion of our program provides students with a comprehensive education in modern refinishing techniques and materials, as well as material and damage estimation. Students will learn all phases of substrate preparation, color matching and application of the latest paint materials including water born products.

Students must complete each ABF and related course with a 2.0 grade or better before advancing to subsequent quarters.

Courses

ABF	270	Sheet Metal Restoration Welding Lab	3
ABF	271	Sheet Metal Shaping Lab	3
ABF	272	Bucks and Forms Lab	2
ABF	273	Sheet Metal and Restoration and Repair	3
ABF	275	Sheet Metal Restoration Welding	1
ABF	276	Sheet Metal Shaping	1
ABF	277	Bucks and Forms	1
		Total	**14**

14 credits are required for the Certificate

AUTOMOTIVE MAINTENANCE AND LIGHT REPAIR: SCC

Automotive Maintenance and Light Repair Certificate

This program prepares students for the ASE G1 test and an entry–level automotive general service technician position.

First Quarter

AUTO	100	Introduction to Automotive	4
AUTO	116	Diagnosis of Electrical Systems	4
AUTO	150	Chassis Maintenance	4
		Total	**12**

Second Quarter

AUTO	111	Theory of Brakes	6
AUTO	151	Drive Train Maintenance	6
		Total	**12**

24 credits are required for the Certificate

AUTOMOTIVE TECHNOLOGY: SCC

A1 Engine Repair Certificate

The Automotive Technology program prepares students for employment in many areas of the automotive field including dealerships, independent garages, fleet shops, service stations and specialty shops which cover areas such as tune–ups and brakes. Students may enter the program only in the first quarter. The one–year certificate requires completion of any three quarters of the automotive technology program and the three related classes identified in footnote 1. This flexible schedule

also enables students to receive short–term certificates while pursuing their degree. Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

This short–term engine repair certificate program provides students with theory and operation fundamentals of engine diagnosis. Students gain practical shop experience in engine repair, inspection of cylinder heads, valve trains, engine blocks, and lubrication and cooling systems.

Courses

AUTO	211	Theory of Engines	7
AUTO	212	Application of Engine Repair	5
		Total	**12**

12 credits are required for the Certificate

A2 Auto Transmissions/Transaxles Certificate

The Automotive Technology program prepares students for employment in many areas of the automotive field including dealerships, independent garages, fleet shops, service stations and specialty shops which cover areas such as tune–ups and brakes. Students may enter the program only in the first quarter. The one–year certificate requires completion of any three quarters of the automotive technology program and the three related classes identified in footnote 1. This flexible schedule also enables students to receive short–term certificates while pursuing their degree. Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

This short–term certificate program introduces students to the theory and operation of automatic transmissions/ transaxles. Students learn the principles of late model transmissions, transaxles and sub–assemblies. Practical applications include the diagnosis and repair of all types of automatic transmissions/ transaxle components.

Courses

AUTO	113	Theory of Auto Transmissions/Transaxles	6
AUTO	114	Application of Auto Transmissions/Tranaxles	4
		Total	**10**

10 credits are required for the Certificate

A3 Manual Drive Train & Axles Certificate

The Automotive Technology program prepares students for employment in many areas of the automotive field including dealerships, independent garages, fleet shops, service stations and specialty shops which cover areas such as tune–ups and brakes. Students may enter the program only in the first quarter. The one–year certificate requires completion of any three quarters of the automotive technology program and the three related classes identified in footnote 1. This flexible schedule also enables students to receive short–term certificates while pursuing their degree. Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

This short–term certificate program introduces students to the theory and operation of manual transmissions/ transaxles, differential, drive line, transfer case, and constant velocity joints. Students learn the principles of late model manual transmissions, transaxles and sub–assemblies. Practical applications include the diagnosis and repair of all types of manual transmissions/transaxles, transfer case, and differential components.

Courses

AUTO	129	Theory of Manual Drive Train/Transmissions	5
AUTO	130	Application of Manual Drive Train/Transmission	3
		Total	**8**

8 credits are required for the Certificate

A4 Suspension and Steering Certificate

The Automotive Technology program prepares students for employment in many areas of the automotive field including dealerships, independent garages, fleet shops, service stations and specialty shops which cover areas such as tune–ups and brakes. Students may enter the program only in the first quarter. The one–year certificate requires completion of any three quarters of the automotive technology program and the three related classes identified in footnote 1. This flexible schedule also enables students to receive short–term certificates while pursuing their degree. Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

This short–term certificate provides students with both theory and practical lab applications in automotive suspension and steering systems. Students gain experience in the diagnosis and repair of the following systems and components: power steering and suspension systems including MacPherson struts and four–wheel alignment.

Courses

AUTO	131	Theory of Suspension and Steering	5
AUTO	132	Application of Suspension and Steering	3
		Total	**8**

8 credits are required for the Certificate

A5 Brakes Certificate

The Automotive Technology program prepares students for employment in many areas of the automotive field including dealerships, independent garages, fleet shops, service stations and specialty shops which cover areas such as tune–ups and brakes. Students may enter the program only in the first quarter. The one–year certificate requires completion of any three quarters of the automotive technology program and the three related classes identified in footnote 1. This flexible schedule also enables students to receive short–term certificates while pursuing their degree. Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

This short–term certificate provides students with both theory and practical lab applications in automotive brake and hydraulic systems. Students gain experience in the diagnosis and repair of the following systems and components: master cylinder and hydraulic systems, drum and disc brakes, parking brakes, machining of brake drums and rotors, power brake units, and anti–lock brake systems.

Courses

AUTO	111	Theory of Brakes	6
AUTO	112	Applications of Brakes	4
		Total	**10**

10 credits are required for the Certificate

A6 Electronics/Electrical Systems Certificate

The Automotive Technology program prepares students for employment in many areas of the automotive field including dealerships, independent garages, fleet shops, service stations and specialty shops which cover areas such as tune–ups and brakes. Students may enter the program only in the first quarter. The one–year certificate requires completion of any three quarters of the automotive technology program and the three related classes identified in footnote 1. This flexible schedule also enables students to receive short–term certificates while pursuing their degree. Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

This short–term certificate program introduces students to basic electrical concepts including Ohm's Law, magnetism, analog and digital meters, and test equipment. Students gain practical shop experience in the testing of such equipment as test lamps, voltmeters and ammeters. Hookup and testing of electronics and electrical components and circuits also are included.

Courses

AUTO	115	Theory of Electrical Systems	6
AUTO	116	Diagnosis of Electrical Systems	4
AUTO	215	Theory of Electronic Systems	5
AUTO	216	Diagnosis of Electronic Systems	3
		Total	**18**

18 credits are required for the Certificate

A7 Engine Heating and Air Conditioning Certificate

The Automotive Technology program prepares students for employment in many areas of the automotive field including dealerships, independent garages, fleet shops, service stations and specialty shops which cover areas such as tune–ups and brakes. Students may enter the program only in the first quarter. The one–year certificate requires completion of any three quarters of the automotive technology program and the three related classes identified in footnote 1. This flexible schedule also enables students to receive short–term certificates while pursuing their degree. Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

This short–term certificate program emphasizes heating and air conditioning systems and components. Students are introduced to heating and air conditioning systems and gain practical shop experience in their diagnosis and repair procedures.

Courses

AUTO	119	Theory of Heating and Air Conditioning	4
AUTO	120	Application of Heat and AC	2
		Total	**6**

6 credits are required for the Certificate

A8 Engine Performance Certificate

The Automotive Technology program prepares students for employment in many areas of the automotive field including dealerships, independent garages, fleet shops, service stations and specialty shops which cover areas such as tune–ups and brakes. Students may enter the program only in the first quarter. The one–year certificate requires completion of any three quarters of the automotive technology program and the three related classes identified in footnote 1. This flexible schedule also enables students to receive short–term certificates while pursuing their degree. Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

This short–term certificate program emphasizes engine performance systems and components. Content areas include ignition systems, fuel and exhaust/emissions systems, theory of carburetion and ignition systems. Students are introduced to drivability systems and gain practical shop experience in their diagnosis and repair procedures. An electronics/electrical certificate must be earned before taking these courses.

Courses

AUTO	117	Theory of Engine Performance	7
AUTO	118	Application of Engine Performance	5
		Total	**12**

12 credits are required for the Certificate

Automotive Technology Certificate

The Automotive Technology program prepares students for employment in many areas of the automotive field including dealerships, independent garages, fleet shops, service stations and specialty shops which cover areas such as tune–ups and brakes. Students may enter the program only in the first quarter. The one–year certificate requires completion of any three quarters of the automotive technology program and the three related classes identified in footnote 1. This flexible schedule also enables students to receive short–term certificates while pursuing their degree. Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

The one–year certificate requires completion of any three quarters of the automotive technology program and the three related classes identified in footnote 1. This flexible schedule also enables students to receive short–term certificates while pursuing their degree. 56–58 credits are required for the certificate.

Courses

APLED	112	Applied Mathematics [1]	4
APLED	121	Applied Written Communication [1]	4
APLED	125	Employment Preparation [1]	3
		Any Three Quarters of AAS Degree [2]	45-47
		Total	**56–58**

56-58 credits are required for the Certificate

1 This related education requirement may be met with any course or combination of courses approved by the instructional dean.

2 The one–year certificate requires completion of any three quarters of the automotive technology program and the three related classes identified in the certificate option.

Automotive Technology Associate in Applied Science

The Automotive Technology program prepares students for employment in many areas of the automotive field including dealerships, independent garages, fleet shops, service stations and specialty shops which cover areas such as tune–ups and brakes. Students may enter the program only in the first quarter. The one–year certificate requires completion of any three quarters of the automotive technology program and the three related classes identified in footnote 1. This flexible schedule also enables students to receive short–term certificates while pursuing their degree. Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

First Quarter

APLED	112	Applied Mathematics [1]	4
APLED	121	Applied Written Communication [1]	4
APLED	123	Leadership Skills for Business and Industry [1]	4
AUTO	100	Introduction to Automotive	4
WELD	155	Auto Welding	1
		Total	**17**

Second Quarter

AUTO	115	Theory of Electrical Systems	6
AUTO	116	Diagnosis of Electrical Systems	4
AUTO	215	Theory of Electronic Systems	5
AUTO	216	Diagnosis of Electronic Systems	3
		Total	**18**

Third Quarter

AUTO	119	Theory of Heating and Air Conditioning	4
AUTO	120	Application of Heat and AC	2
AUTO	211	Theory of Engines	7
AUTO	212	Application of Engine Repair	5
		Total	**18**

Fourth Quarter

AUTO	111	Theory of Brakes	6
AUTO	112	Applications of Brakes	4
AUTO	131	Theory of Suspension and Steering	5
AUTO	132	Application of Suspension and Steering	3
		Total	**18**

Fifth Quarter

APLED	125	Employment Preparation [1]	3
AUTO	113	Theory of Auto Transmissions/ Transaxles [2]	6
AUTO	114	Application of Auto Transmissions/Tranaxles [2]	4
AUTO	129	Theory of Manual Drive Train/Transmissions [2]	5
AUTO	130	Application of Manual Drive Train/Transmission [2]	3
		Total	**21**

Sixth Quarter

AUTO	117	Theory of Engine Performance	7
AUTO	118	Application of Engine Performance	5
AUTO	227	Theory of Hybrids	4
AUTO	228	Diagnosis of Hybrids	2
		Total	**18**

Seventh Quarter

		Optional Summer Course - High Performance Engines [3]	0-18
		Total	**0–18**

110-128 credits are required for the Associate in Applied Science

Optional Summer Course – High Performance Engines

AUTO	270	High Performance Engines	18

1 This related education requirement may be met with any course or combination of courses approved by the instructional dean.

2 Auto 266 and 267 or 288 (no seminar) may be substituted. A maximum of 18 credits of cooperative education is allowed.

3 AUTO 270 for automotive technology students desiring to receive additional training may be taken summer quarter either after the 3rd or 6th quarter. Instructor permission required. Completion of this course will entitle the student to a certificate of completion issued by the dean of instruction for technical education.

Automotive Technology Short-Term Certificate

The Automotive Technology program prepares students for employment in many areas of the automotive field including dealerships, independent garages, fleet shops, service stations and specialty shops which cover areas such as tune–ups and brakes. Students may enter the program only in the first quarter. The one–year certificate requires completion of any three quarters of the automotive technology program and the three related classes identified in footnote 1. This flexible schedule also enables students to receive short–term certificates while pursuing their degree. Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

The automotive technology short–term certificate program prepares students for employment in many areas of the automotive field including dealerships, independent garages, fleet shops, service stations and specialty shops which cover areas such as tune–ups and brakes.

Students must complete all courses with a 2.0 grade or better.

Courses

APLED	112	Applied Mathematics [1]	4
APLED	121	Applied Written Communication [1]	4
APLED	123	Leadership Skills for Business and Industry [1]	4
AUTO	100	Introduction to Automotive	4
WELD	155	Auto Welding	1
		Total	**17**

17 credits are required for the Certificate

1 This related education requirement may be met with any course or combination of courses approved by the instructional dean.

AUTOMOTIVE TOYOTA T-TEN: SCC

Automotive: Toyota T-TEN
Associate in Applied Science

The Automotive Technology program prepares students for employment in many areas of the automotive field including dealerships, independent garages, fleet shops, service stations and specialty shops which cover areas such as tune–ups and brakes. Students may enter the program in any of the first five quarters.

Students interested in receiving special training in Toyota T–TEN (Technical Education Network) may substitute specialized courses specifically catering to Toyota T–TEN option. Entrance into the program requires an interview with and permission of the instructor. Continuation within the course program requires permission of the instructor. Students must complete each AUTO course with a 2.0 grade or better before advancing to subsequent quarters.

First Quarter

AUTO	101	Electrical Circuitry Theory	5
AUTO	102	Electrical Circuitry Applications [1]	3
AUTO	103	Electrical Wiring Diagrams [1]	5
AUTO	104	Advanced Diagnosis of Electronics	4
AUTO	110	Introduction to Toyota	1

WELD	155	Auto Welding	1
		Total	**19**

Second Quarter

APLED	121	Applied Written Communication [1]	4
AUTO	133	Toyota Applications of Steering and Suspension Systems	4
AUTO	136	Toyota Theory of Brakes	5
AUTO	137	Toyota Brake Applications	4
AUTO	142	Principles of Steering and Suspension Systems	4
		Total	**21**

Third Quarter

AUTO	134	Heating and Air Conditioning Lecture	5
AUTO	135	Heating and Air Conditioning Application	4
AUTO	219	Toyota Hybrid Service and Repair	3
AUTO	226	Hybrid Safety Service and Repair	4
		Total	**16**

Fourth Quarter

APLED	112	Applied Mathematics [1]	4
AUTO	108	Engine Theory	6
AUTO	109	Engine Repair Applications	2
AUTO	125	Toyota Engine Repair	4
AUTO	126	Toyota Engine Repair Lab	5
		Total	**21**

Fifth Quarter

APLED	125	Employment Preparation [1]	3
AUTO	123	Toyota Engine Performance I	4
AUTO	124	Toyota Engine Performance I Lab	4
AUTO	220	Toyota Engine Performance II	3
AUTO	223	Toyota Engine Performance II Lab	5
		Total	**19**

Sixth Quarter

AUTO	138	Manual Transmissions Lecture	4
AUTO	139	Toyota Manual Transmission Application	3
AUTO	140	Automatic Transmissions Lecture	4
AUTO	141	Toyota Automatic Transmission Applications	5
		Total	**16**

Seventh Quarter

		Optional Summer Course - High Performance Engines [2]	0-18
		Total	**0–18**

112-130 credits are required for the Associate in Applied Science

Optional Summer Course – High Performance Engines

AUTO	270	High Performance Engines	18

1 This related education requirement may be met with any course or combination of courses approved by the instructional dean.

2 AUTO 270 for automotive technology students desiring to receive additional training may be taken summer quarter either after the 3rd or 6th quarter. Instructor permission required. Completion of this course will entitle the student to a certificate of completion issued by the dean of instruction for technical education.

AVIATION MAINTENANCE TECHNOLOGY: SCC

Airframe Maintenance
Certificate

Approved courses in both airframe and powerplant mechanics are offered to meet the Federal Aviation Administration requirements. General aircraft courses offered the first two quarters are prerequisites to both the airframe and powerplant phase of the program. Students receive a well–rounded education in general aircraft mechanics the first two quarters of the program. Third–and fourth–quarter course offerings include both lecture and lab courses in airframe repair, and fifth–and sixth–quarter offerings include lecture and lab courses in powerplant repair. Courses to satisfy the requirements for an AAS degree will be by arrangement.

Graduates of the program are eligible to take the FAA examination for both the Airframe and Powerplant licenses. A minimum of 1,900 attendance hours is required to take these exams.

This two–quarter certificate provides students with both theory and practical lab application on advanced aircraft construction, rigging and repair, aircraft operation systems, aircraft warning systems, and advanced aircraft electrical systems. This certificate in conjunction with the General Aircraft Maintenance Certificate would allow a student to be eligible to apply for a Federal Aviation Administration Maintenance Airframe License. Completion of the General Aircraft Maintenance Certificate is required before Airframe and/or Powerplant Certificate programs are taken. FAA requires 750 hours of attendance.

First Quarter

ARCFT	137	Airframe Structures	5
ARCFT	138	Airframe Structures Shop	5
ARCFT	139	Airframe Systems	5
ARCFT	140	Airframe Systems Shop	5
		Total	**20**

Second Quarter

ARCFT	235	Advanced Airframe Systems	5
ARCFT	236	Advanced Airframe Systems Shop	5
ARCFT	237	Integrated Airframe Powerplant Maintenance	5
ARCFT	238	Integrated Airframe Powerplant Maintenance Shop	5
		Total	**20**

40 credits are required for the Certificate

AMT Avionics
Certificate

This two quarter AMT Avionics Certificate program will allow AMT students to increase their knowledge in aircraft electronics and electronic systems. Students will learn about digital electronics, communication systems, aircraft wiring, and fiber optic systems. Hands on labs will be used to demonstrate concepts taught in the classroom. These labs will focus on system installation, troubleshooting, and repair techniques with an emphasis on the safe use of tools and equipment. Students must complete first year of Aviation Maintenance before enrolling in the AMT Avionics Certificate.

First Quarter

AVIO&	103	Aircraft Wiring Systems [1]	2
AVIO&	104	Aircraft Fiber Optic Systems [1]	2

AVIO&	201	Aircraft Digital Electronic Instrument Systems [1]	8
		Total	**12**

Second Quarter

AVIO&	202	Avionics Systems for Airframe and Power Plant [1]	8
AVIO&	203	Avionics Communications [1]	2
AVIO&	204	Principles of Avionics Troubleshooting [1]	2
		Total	**12**

24 credits are required for the Certificate

1 Enrollment requires successful completion of first year Aviation Maintenance courses.

Aviation Maintenance Technology
Associate in Applied Science

Approved courses in both airframe and powerplant mechanics are offered to meet the Federal Aviation Administration requirements. General aircraft courses offered the first two quarters are prerequisites to both the airframe and powerplant phase of the program. Students receive a well–rounded education in general aircraft mechanics the first two quarters of the program. Third–and fourth–quarter course offerings include both lecture and lab courses in airframe repair, and fifth–and sixth–quarter offerings include lecture and lab courses in powerplant repair. Courses to satisfy the requirements for an AAS degree will be by arrangement.

Graduates of the program are eligible to take the FAA examination for both the Airframe and Powerplant licenses. A minimum of 1,900 attendance hours is required to take these exams.

First Quarter

ARCFT	115	Introduction to General Aircraft Maintenance	5
ARCFT	116	Introduction to General Aircraft Maintenance Shop	4
ARCFT	117	General Aircraft Maintenance	5
ARCFT	118	General Aircraft Maintenance Shop	4
MATH	100	Vocational Technical Mathematics [1]	3-4
		Total	**21–22**

Second Quarter

ARCFT	119	Advanced General Aircraft Maintenance	5
ARCFT	120	Advanced General Aircraft Maintenance Shop	4
ARCFT	135	Basic Airframe Maintenance	5
ARCFT	136	Basic Airframe Maintenance Shop	5
		Related Education Requirement [2]	3-4
		Total	**22–23**

Third Quarter

ARCFT	137	Airframe Structures	5
ARCFT	138	Airframe Structures Shop	5
ARCFT	139	Airframe Systems	5
ARCFT	140	Airframe Systems Shop	5
		Related Education Requirement [2]	3-4
		Total	**23–24**

Fourth Quarter

ARCFT	235	Advanced Airframe Systems	5
ARCFT	236	Advanced Airframe Systems Shop	5
ARCFT	237	Integrated Airframe Powerplant Maintenance	5
ARCFT	238	Integrated Airframe Powerplant Maintenance Shop	5
		Related Education Requirement [2]	3
		Total	**23**

Fifth Quarter

ARCFT	245	Aircraft Engines I	5
ARCFT	246	Aircraft Engines Shop I	5
ARCFT	247	Aircraft Engines II	5
ARCFT	248	Aircraft Engines Shop II	5
		Total	**20**

Sixth Quarter

ARCFT	255	Powerplant Systems and Components I	5
ARCFT	256	Powerplant Systems and Components I Shop	5
ARCFT	257	Powerplant Systems and Components II	5
ARCFT	258	Powerplant Systems and Components II Shop	5
		Total	**20**

Seventh Quarter

		Additional Credits to Satisfy FAA Requirements [3]	0-20
		Total	**0–20**

129-152 credits are required for the Associate in Applied Science

Additional Credits to Satisfy FAA Requirements [3]

ARCFT	275	Theory and Review - Airframe or Powerplant [3]	1-10
ARCFT	276	Airframe or Powerplant Shop [3]	1-10

1 This course may be substituted with any course from the department pre–approved substitution list or any related course or combination of courses approved by the instructional dean.
2 This course may be chosen from a pre–approved departmental elective list or any related course or combination of courses approved by the instructional dean. A subtotal of 15 credits (a minimum of 3 in each category) in the related education areas of computation, written communication, and human relations/leadership is required for the AAS degree.
3 Available for students who have not accumulated 1900 hours or satisfied other FAA requirements.

General Aircraft Maintenance
Certificate

Approved courses in both airframe and powerplant mechanics are offered to meet the Federal Aviation Administration requirements. General aircraft courses offered the first two quarters are prerequisites to both the airframe and powerplant phase of the program. Students receive a well–rounded education in general aircraft mechanics the first two quarters of the program. Third–and fourth–quarter course offerings include both lecture and lab courses in airframe repair, and fifth–and sixth–quarter offerings include lecture and lab courses in powerplant repair. Courses to satisfy the requirements for an AAS degree will be by arrangement.

Graduates of the program are eligible to take the FAA examination for both the Airframe and Powerplant licenses. A minimum of 1,900 attendance hours is required to take these exams.

This two–quarter certificate provides students with both theory and practical lab applications in aviation physics and aerodynamics, aircraft weight and balance, aircraft ground handling, basic aircraft electrical circuits, aircraft inspection techniques, aircraft materials and construction, and Federal

Aviation Administration regulations and maintenance entries. Completion of this certificate is required before Airframe and/or Powerplant Certificate programs are taken. FAA requires 400 hours of attendance.

Courses

MATH	100	Vocational Technical Mathematics [1]	3
		Total	**3**

First Quarter

ARCFT	115	Introduction to General Aircraft Maintenance	5
ARCFT	116	Introduction to General Aircraft Maintenance Shop	4
ARCFT	117	General Aircraft Maintenance	5
ARCFT	118	General Aircraft Maintenance Shop	4
		Total	**18**

Second Quarter

ARCFT	119	Advanced General Aircraft Maintenance	5
ARCFT	120	Advanced General Aircraft Maintenance Shop	4
ARCFT	135	Basic Airframe Maintenance	5
ARCFT	136	Basic Airframe Maintenance Shop	5
		Total	**19**

40 credits are required for the Certificate

1 Required by FAA.

Powerplant Maintenance Certificate

Approved courses in both airframe and powerplant mechanics are offered to meet the Federal Aviation Administration requirements. General aircraft courses offered the first two quarters are prerequisites to both the airframe and powerplant phase of the program. Students receive a well–rounded education in general aircraft mechanics the first two quarters of the program. Third–and fourth–quarter course offerings include both lecture and lab courses in airframe repair, and fifth–and sixth–quarter offerings include lecture and lab courses in powerplant repair. Courses to satisfy the requirements for an AAS degree will be by arrangement.

Graduates of the program are eligible to take the FAA examination for both the Airframe and Powerplant licenses. A minimum of 1,900 attendance hours is required to take these exams.

This two–quarter certificate provides students with both theory and practical lab application in powerplant theory and construction both for reciprocating and turbine engines, and theory and repair of powerplant accessories. This certificate in conjunction with the General Aircraft Maintenance Certificate allows students to be eligible to apply for a Federal Aviation Administration Maintenance Powerplant License. Completion of the General Aircraft Maintenance Certificate is required before Airframe and/or Powerplant Certificate programs are taken. FAA requires 750 hours of attendance.

First Quarter

ARCFT	245	Aircraft Engines I	5
ARCFT	246	Aircraft Engines Shop I	5
ARCFT	247	Aircraft Engines II	5
ARCFT	248	Aircraft Engines Shop II	5
		Total	**20**

Second Quarter

ARCFT	255	Powerplant Systems and Components I	5
ARCFT	256	Powerplant Systems and Components I Shop	5
ARCFT	257	Powerplant Systems and Components II	5
ARCFT	258	Powerplant Systems and Components II Shop	5
		Total	**20**

40 credits are required for the Certificate

BAKING: SCC

Baking: Professional Pastries and Specialty Cakes Certificate

This program prepares students for employment in independent, specialty bakeries and professional cake decorating environments. The certificate provides practical and theoretical training in personal hygiene in the baking industry, baking machinery usage, and production training in the baking of artisan breads and pastries. Students learn decorating, including proper piping procedures, tube usage, flower creation and decoration, color mixing and design principles.

Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

First Quarter

BAK	101	Introduction to Baking and Pastries	1
BAK	110	Artisan Breads	5
BAK	111	Pastries	7
HM	112	Hospitality Mathematics [1]	3
		Total	**16**

Second Quarter

BAK	120	Special Occasion Cakes	2
BAK	121	Tortes and Gateau	2.5
BAK	130	Sculptured Cakes	2.5
BAK	131	Rolled Fondant	2.5
BAK	248	Wedding Cakes	2.5
HM	115	Food Sanitation	3
		Total	**15**

Third Quarter

APLED	121	Applied Written Communication [1]	4
APLED	123	Leadership Skills for Business and Industry [1]	3
BAK	288	Cooperative Education Work Experience (No Seminar) [2]	7
		Total	**14**

45 credits are required for the Certificate

1 This course may be substituted with any course or combination of courses approved by the instructional dean.
2 BAK 288 may be substituted with BAK 266 and 267 for 7 credits.

BIOMEDICAL EQUIPMENT: SCC

Biomedical Equipment Technician Associate in Applied Science

This program is designed to prepare students for employment in the specialized field of biomedical electronics in a hospital or in the medical electronics industry.

The curriculum has been planned to give comprehensive training in circuit analysis, laboratory techniques and the use of modern test equipment. A balanced study of peripheral subjects that make the biomedical equipment technician unique also is included. These subjects include fundamentals of physics, chemistry, physiology, medical terminology, hospital ethics and hospital safety. The curriculum provides special lectures and laboratories in repair, and preventive maintenance of medical electronic equipment.

Graduates are prepared for employment as entry–level biomedical equipment technicians. To qualify for graduation, the student must have successfully completed five quarters of basic electronics including the additional required courses (i.e., chemistry and physics) and the six and seventh quarter biomedical sequence. Entrance to each quarter of basics is contingent upon satisfactory completion of the previous quarter. Students may enroll fall and winter quarters only. The clinical practicum is available during summer quarter only.

The goal of the program is to provide the health care field with biomedical equipment technicians who have a thorough understanding of electronic fundamentals; a practical ability to design, construct and troubleshoot electronic circuits; and knowledge about the theory of operation, physiological principles, and the safe and practical applications of biomedical equipment.

Night classes, which cover material from the first and second quarters of the program are available. Students must complete ELECT 115, 116, 117; 125, 126, 127; 105, 106, 107. Upon completion of the night classes, students may enter the daytime program in the third quarter.

Prerequisite: scores in math (or alternative courses) must be met before admission into the program is granted. Written permission of the department chair or the technical division dean may supersede requirements.

To qualify for this degree, the student must successfully complete specific core electronics courses, as well as the biomedical classes during the sixth and seventh quarter of study. The seventh quarter of study includes a Clinical Experience at a medical facility. Since there are a limited number of clinical sites in the Spokane area, students must be willing to go out of town to an available clinical site. The student must also successfully complete specific related classes including medical terminology, chemistry and physics. Successful completion will be determined by meeting the following criteria:

- A student must achieve an overall grade point average of 2.75 in all of the required electronics classes, biomedical electronics classes, and required specific related classes.
- A student must pass each of the electronics classes during the first three quarters of the program with a minimum grade of 1.7
- A student must pass each of the electronics classes during the fourth through seventh quarters with a minimum grade of 2.0
- A student must pass each required related course with a minimum grade of 2.0

Note: upon review, the department chairperson and/or Technical Education Dean may waive any or all of the previous criteria when extenuating circumstances arise.

First Quarter

ELECT	111	DC Circuits	9
ELECT	112	DC Circuits Lab	5
ELECT	113	DC Electronics Math	5
		Total	**19**

Second Quarter

APLED	121	Applied Written Communication [1]	4
ELECT	121	AC Circuits	9
ELECT	122	AC Circuits Lab	5
ELECT	123	AC Electronics Math	5
		Total	**23**

Third Quarter

ELECT	131	Solid State Devices	5
ELECT	132	Solid State Devices Lab	4
ELECT	133	Computer Systems	5
ELECT	134	Computer Systems Lab	4
PHYS	100	Introductory Physics [1]	5
		Total	**23**

Fourth Quarter

CHEM&	121	Intro to Chemistry: w/Lab [1]	5
ELECT	211	Digital Concepts	5
ELECT	212	Digital Concepts Lab	4
ELECT	215	Linear Devices	5
ELECT	216	Linear Devices Lab	4
		Total	**23**

Fifth Quarter

APLED	125	Employment Preparation [2]	3
ELECT	221	RF Communications	5
ELECT	222	RF Communications Lab	4
ELECT	225	Internet of Things	5
ELECT	226	Internet of Things Lab	4
		Total	**21**

Sixth Quarter

BIOEQ	199	Medical Terminology for Biomedical Equipment Technology [3]	2
BIOEQ	242	Physiology for Biomedical Equipment Technology	3
BIOEQ	251	Biomedical Instrumentation Patient Monitoring and Clinical	10
BIOEQ	252	Biomedical Instrumentation Laboratory	6
		Total	**21**

Seventh Quarter

BIOEQ	271	Biomedical Equipment Technology Clinical Rotation	10
BIOEQ	272	Biomedical Seminar	4
		Total	**14**

144 credits are required for the Associate in Applied Science

1 It is recommended that students starting fall quarter should take APLED 121, CHEM& 121 and PHYS 100 during summer quarter to lighten their credit load for the third and fourth quarters. APLED 121 may be substituted by any course or combination of courses approved by the instructional dean.
2 This course may be substituted by any course or combination of courses approved by the instructional dean.
3 This course is offered spring quarter only.

BUSINESS AND SOFTWARE APPLICATIONS: SFCC

Business and Software Applications Certificate

The Business and Software Applications certificate is a three–quarter program of study. Students may participate in online or on–ground classes. Students learn about the broad field of business organization, operation, and management. Students apply a variety of written and oral communications, human

relations and customer service techniques, and software skills throughout the program. Students explore the importance of social media in business marketing. This certificate is intended to provide students with essential skills and knowledge required to enter a business career.

First Quarter

BT	106	Computing Essentials	5
BT	107	Business Communications [1]	5
BT	110	Strategies for Student Success	2
BUS	122	Practical Business Math	3
		Total	**15**

Second Quarter

BT	272	Business Correspondence	5
BUS&	101	Intro to Business	5
CAPPS	141	Word I	2
CAPPS	185	Digital Marketing Platforms	3
		Total	**15**

Third Quarter

BUS	280	Human Relations in Business [2]	5
CAPPS	151	Excel I	2
CAPPS	152	Excel II	2
CAPPS	161	Access I	2
CAPPS	171	PowerPoint I	2
CAPPS	180	Outlook	2
		Total	**15**

45 credits are required for the Certificate

1 BT 107 may be substituted with ENGL& 101 English Composition I.

2 BUS 280 may be substituted with CMST& 210 Interpersonal Communication.

BUSINESS GENERAL: SCC

Business, General Option 1
Associate in Applied Science

The objective of this program is to permit the student maximum flexibility in designing a two–year program of study in business. The student may specialize in a particular area of business such as marketing, management, or accounting; or select courses that provide a general exposure to several areas of business.

The General Business curriculum serves the student who is uncertain about transferring to a four–year institution or who wants a curriculum that maximizes transferability and at the same time permits emphasis on business courses to a greater extent than is possible when taking the general two–year transfer program.

Such a curriculum does not permit a student to complete all the courses normally required by a four–year institution in the freshman–sophomore years; however, it is possible for the student to undertake a curriculum where many of these requirements are met and where all other completed courses taken could be accepted for elective credit by the four–year institution. All students graduating from this program must have a minimum grade of 2.0 on each of the Management, Accounting, Economic, and General Business required courses. Students must also have a 2.0 cumulative minimum grade point average on all required courses in the program.

Courses

ACCT	151	College Accounting I [1]	5
BT	152	College and Career Strategies	3
BUS&	101	Intro to Business	5
BUS	103	Basic Business Math and Electronic Calculators	5
BUS	104	Business Mathematics [2]	5
BUS	280	Human Relations in Business	5
CATT	120	Microsoft Word I	2.5
CATT	138	Microsoft Excel I	2.5
ECON	100	Fundamentals of Economics [3]	5
ENGL&	101	English Composition I	5
MMGT	100	Supervised Volunteer Experience	1
MMGT	101	Principles of Management	5
MMGT	211	Marketing	5
		Group A,B,C,D or E Elective	8
		Group A-Written Communication Elective	5
		Group B-Marketing & Management Elective	15
		Group C-Computing Elective	5
		Group D-Quantitative Analysis Elective	5
		Total	**92**

92 credits are required for the Associate in Applied Science

Group A–Written Communication Elective

BT	272	Business Correspondence	5
BT	274	Business Writing for the Web	5
ENGL&	102	Composition II	5
ENGL&	235	Technical Writing	5

Group B–Marketing & Management Elective

BUS	120	International Business	5
BUS	140	International Marketing	3
BUS&	201	Business Law	5
BUS	204	Introduction to Law	5
BUS	284	Special Business Topics	1-5
BUS	285	Special Business Topics	1-5
BUS	286	Special Business Topics	1-5
CATT	241	Microsoft Project	2.5
CATT	242	Advanced Microsoft Project	2.5
CMST&	101	Introduction to Communication	5
MMGT	125	Social Media Marketing	5
MMGT	205	Small Business Planning	5
MMGT	212	Retailing	5
MMGT	218	Fundamentals of Advertising	5
MMGT	223	Customer Service	3
MMGT	231	Human Resource Management	5
MMGT	243	Fundamentals of Project Management	5
MMGT	288	Cooperative Education Work Experience (No Seminar)	1-5

Group C–Computing Elective

CATT	102	Introduction to Outlook	2.5
CATT	121	Microsoft Word II	2.5
CATT	128	Desktop Publishing	5
CATT	139	Microsoft Excel II	2.5
CATT	190	Introduction to PowerPoint	2.5
CIS	110	Introduction to Computer Applications	5
CIS	112	Web Graphics with Photoshop	3

Group D–Quantitative Analysis Elective

ACCT	141	QuickBooks	5
ACCT	142	Advanced QuickBooks	5
ACCT	152	College Accounting II	5
ACCT	161	Payroll Procedures	4
ACCT	162	Business Tax Accounting	1
ACCT&	201	Prin of Accounting I	5
ACCT&	202	Prin of Accounting II	5
ACCT&	203	Prin of Accounting III	5
ACCT	204	Accounting Integration	5
ACCT	212	Accounting Applications and Analysis	5
BUS	217	Business Statistics	5
ECON&	201	Micro Economics	5
ECON&	202	Macro Economics	5

Group E–Business Related Elective

BUS	100	Money Management	3
BUS	103	Basic Business Math and Electronic Calculators	5
CMST&	210	Interpersonal Communication	5
CMST	227	Intercultural Communication	5
CMST	287	Business and Professional Communication	5
MMGT	100	Supervised Volunteer Experience	2
MMGT	181	Leadership Training-DEC	1
MMGT	182	Leadership Training-DEC	1
MMGT	183	Leadership Training-DEC	1
MMGT	191	Leadership Training-DEC	1
MMGT	192	Leadership Training-DEC	1
MMGT	193	Leadership Training-DEC	1
PSYC&	100	General Psychology	5
SOC&	101	Intro to Sociology	5
SPAN&	121	Spanish I	5

1 ACCT 151 may be substituted with ACCT& 201.

2 BUS 103 or proficiency test is required.

3 ECON 100 may be substituted with a higher level ECON course.

4 BT 105 or permission of instructor.

5 ACCT 141 or permission of instructor.

6 ACCT 151 or ACCT 201 or permission of instructor.

7 MATH 099 with a 2.0 or better or appropriate placement scores.

8 ACCT 152 or ACCT& 202.

Business, General Option 2
Associate in Applied Science

The objective of this program is to permit the student maximum flexibility in designing a two–year program of study in business. The student may specialize in a particular area of business such as marketing, management, or accounting; or select courses that provide a general exposure to several areas of business.

The General Business curriculum serves the student who is uncertain about transferring to a four–year institution or who wants a curriculum that maximizes transferability and at the same time permits emphasis on business courses to a greater extent than is possible when taking the general two–year transfer program.

Such a curriculum does not permit a student to complete all the courses normally required by a four–year institution in the freshman–sophomore years; however, it is possible for the student to undertake a curriculum where many of these requirements are met and where all other completed courses taken could be accepted for elective credit by the four–year institution. All students graduating from this program must have a minimum grade of 2.0 on each of the Management, Accounting, Economic, and General Business required courses. Students must also have a 2.0 cumulative minimum grade point average on all required courses in the program.

Courses

ACCT	151	College Accounting I [1]	5
BT	152	College and Career Strategies	3
BUS&	101	Intro to Business	5
BUS	103	Basic Business Math and Electronic Calculators	5
BUS	104	Business Mathematics [2]	5
BUS	206	Entrepreneurship and Business Plan Writing [4]	10
BUS	280	Human Relations in Business	5
CATT	120	Microsoft Word I	2.5
CATT	138	Microsoft Excel I	2.5
ECON	100	Fundamentals of Economics [3]	5
ENGL&	101	English Composition I	5
MMGT	100	Supervised Volunteer Experience	1
MMGT	101	Principles of Management	5
MMGT	205	Small Business Planning	5
MMGT	211	Marketing	5
MMGT	250	Professional Sales	5
MMGT	288	Cooperative Education Work Experience (No Seminar)	1
		Group A, B, C, D or E Elective	10
		Group A-Written Communication Elective	5
		Total	**90**

90 credits are required for the Associate in Applied Science

Group A–Written Communication Elective

BT	272	Business Correspondence	5
BT	274	Business Writing for the Web	5
ENGL&	102	Composition II	5
ENGL&	235	Technical Writing	5

Group B–Marketing & Management Elective

BUS	120	International Business	5
BUS	140	International Marketing	3
BUS&	201	Business Law	5
BUS	204	Introduction to Law	5
BUS	284	Special Business Topics	1-5
BUS	285	Special Business Topics	1-5
BUS	286	Special Business Topics	1-5
CATT	241	Microsoft Project	2.5
CATT	242	Advanced Microsoft Project	2.5
CMST&	101	Introduction to Communication	5
MMGT	125	Social Media Marketing	5
MMGT	205	Small Business Planning	5
MMGT	212	Retailing	5
MMGT	218	Fundamentals of Advertising	5
MMGT	223	Customer Service	3
MMGT	231	Human Resource Management	5
MMGT	243	Fundamentals of Project Management	5
MMGT	288	Cooperative Education Work Experience (No Seminar)	1-18

Group C–Computing Elective

CATT	102	Introduction to Outlook	2.5
CATT	121	Microsoft Word II	1-2.5
CATT	128	Desktop Publishing	5
CATT	139	Microsoft Excel II	2.5
CATT	190	Introduction to PowerPoint	1-2.5
CIS	110	Introduction to Computer Applications	5
CIS	112	Web Graphics with Photoshop	3

Group D–Quantitative Analysis Elective

ACCT	141	QuickBooks	1-5
ACCT	142	Advanced QuickBooks	1-5
ACCT	152	College Accounting II	5
ACCT	161	Payroll Procedures	4
ACCT	162	Business Tax Accounting	1
ACCT&	201	Prin of Accounting I	5
ACCT&	202	Prin of Accounting II	5
ACCT&	203	Prin of Accounting III	5
ACCT	204	Accounting Integration	5
ACCT	212	Accounting Applications and Analysis	5
BUS	217	Business Statistics	5
ECON&	201	Micro Economics	5
ECON&	202	Macro Economics	5

Group E–Business Related Elective

BUS	100	Money Management	3
BUS	103	Basic Business Math and Electronic Calculators	5
CMST&	210	Interpersonal Communication	5

CMST	227	Intercultural Communication	5
CMST	287	Business and Professional Communication	3-5
MMGT	100	Supervised Volunteer Experience	1-3
MMGT	181	Leadership Training-DEC	1-5
MMGT	182	Leadership Training-DEC	1-5
MMGT	183	Leadership Training-DEC	1-5
MMGT	191	Leadership Training-DEC	1-5
MMGT	192	Leadership Training-DEC	1-5
MMGT	193	Leadership Training-DEC	1-5
PSYC&	100	General Psychology	5
SOC&	101	Intro to Sociology	5
SPAN&	121	Spanish I	5

1 ACCT 151 may be substituted with ACCT& 201.

2 BUS 103 or proficiency test is required.

3 ECON 100 may be substituted with a higher level ECON course.

4 Completion of MMGT 205 with a 2.0 or higher or permission of instructor.

5 BT 105 or permission of instructor.

6 ACCT 141 or permission of instructor.

7 ACCT 151 or ACCT 201 or permission of instructor.

8 ACCT 152 or ACCT& 202.

9 MATH 097 or 099 with a 2.0 or better or appropriate placement scores.

BUSINESS MANAGEMENT: SFCC

Business Management
Associate in Applied Science

The challenge of management! It takes a special kind of person with a special knack to be a good business manager. The Business Management program at SFCC is designed to teach the basic principles of business management in order to prepare students to potentially become middle managers and junior executives.

Courses in the program include management, marketing, professional sales, principles of leadership, social media marketing, and human relations. Students are required to complete an additional fifteen credits from one of four areas of emphasis in the Business Management degree: Marketing, Small Business Management, Social Media, or General Business. Select courses from the area of emphasis that best meet your needs.

Only one AAS Degree in Business Management will be awarded.

First Quarter

BUS&	101	Intro to Business	5
BUS	123	Practical Business Math Applications	5
		Communication Elective	5
		Total	**15**

Second Quarter

BUS	280	Human Relations in Business	5
MMGT	125	Social Media Marketing	5
MMGT	231	Human Resource Management	5
		Total	**15**

Third Quarter

MMGT	101	Principles of Management	5
		Computation Elective	5
		Human Relations Leadership Elective	5
		Total	**15**

Fourth Quarter

BUS&	201	Business Law	5
ECON	100	Fundamentals of Economics	5
		Area of Emphasis	5
		Total	**15**

Fifth Quarter

BUS	105	Principles of Leadership	3
MMGT	211	Marketing	5
MMGT	223	Customer Service	3
		Area of Emphasis	5
		Total	**16**

Sixth Quarter

BUS	100	Money Management	3
BUS	106	Applied Leadership	3
MMGT	217	Advertising Basics	3
		Sixth Quarter Elective	5
		Total	**14**

90 credits are required for the Associate in Applied Science

Area of Emphasis: Marketing

BUS	140	International Marketing	3
BUS	218	Marketing Research	2
MMGT	128	Social Media Marketing Campaign	5

Area of Emphasis: Small Business Management

ACCT	219	Payroll and Business Taxes	5
MMGT	106	How to Start a Small Business	5

Area of Emphasis: Social Media

MMGT	126	Search Engine Marketing	5
MMGT	128	Social Media Marketing Campaign	5

Communication Elective

BT	107	Business Communications	5
BT	272	Business Correspondence	5
CMST&	101	Introduction to Communication	5
ENGL&	101	English Composition I	5

Computation Elective

ACCT	140	QuickBooks	2-5
ACCT&	201	Prin of Accounting I	5
BUS	124	Intermediate Business Math I	2
BUS	125	Consumer Math	3
BUS	217	Business Statistics	5
MATH&	107	Math in Society	5
MATH	201	Introduction to Finite Mathematics	5

Human Relations Leadership Elective

CMST&	210	Interpersonal Communication	5
CMST	227	Intercultural Communication	5
PSYC&	100	General Psychology	5

Sixth Quarter Elective

ACCT	103	Fundamental Bookkeeping Procedures	3
CAPPS	151	Excel I	2

1 General Business Area of Emphasis: 10 credits of any college level courses numbered 100 or above. Not restricted to business courses. Please see advisor for options.

2 or 5 credits of any college level course based on career goals.

Business Management
Certificate

The challenge of management! It takes a special kind of person with a special knack to be a good business manager. The Business Management program at SFCC is designed to teach the basic principles of business management in order to prepare students to potentially become middle managers and junior executives.

Courses in the program include management, marketing, professional sales, principles of leadership, social media marketing, and human relations. Students are required to complete an additional fifteen credits from one of four areas of emphasis in the Business Management degree: Marketing, Small Business Management, Social Media, or General Business. Select courses from the area of emphasis that best meet your needs.

Only one AAS Degree in Business Management will be awarded.

The Business Management certificate serves as an introduction to business management. The certificate can also serve as preparation for furthering one's education in the business management field. The curriculum spans a variety of business topics that can also be applied towards the two–year AAS degree in Business Management. All of the courses will help aid students in acquiring a better understanding of small business management.

First Quarter

BUS&	101	Intro to Business	5
BUS	123	Practical Business Math Applications	5
		Communication Elective	5
		Total	**15**

Second Quarter

BUS	280	Human Relations in Business	5
MMGT	125	Social Media Marketing	5
MMGT	231	Human Resource Management	5
		Total	**15**

Third Quarter

MMGT	101	Principles of Management	5
		Computation Elective	5
		Human Relations Leadership Elective	5
		Total	**15**

45 credits are required for the Certificate

Communication Elective

BT	107	Business Communications	5
BT	272	Business Correspondence	5
CMST&	101	Introduction to Communication	5
ENGL&	101	English Composition I	5

Computation Elective

ACCT	140	QuickBooks	2-5
ACCT&	201	Prin of Accounting I	5
BUS	124	Intermediate Business Math I	2
BUS	125	Consumer Math	3
BUS	217	Business Statistics	5
MATH&	107	Math in Society	5
MATH	201	Introduction to Finite Mathematics	5

Human Relations Leadership Elective

CMST&	210	Interpersonal Communication	5
CMST	227	Intercultural Communication	5
PSYC&	100	General Psychology	5

BUSINESS OCCUPATIONS: SCC

Business Occupations
Certificate

The Business Occupations Certificate is designed to provide a balanced survey of business knowledge and skills that are core to the General Business Associate in Applied Science degree program and most other business AAS degree programs. All students graduating from this program must have a minimum grade of 2.0 on each of the accounting, management, economics and general business required courses. Students must also have a 2.0 cumulative minimum grade point average on all required courses in the program.

First Quarter

BT	152	College and Career Strategies	3
BUS	103	Basic Business Math and Electronic Calculators	5
BUS	280	Human Relations in Business	5
CATT	120	Microsoft Word I	2.5
		Total	**15.5**

Second Quarter

ACCT	151	College Accounting I [1]	5
CATT	138	Microsoft Excel I	2.5
ENGL&	101	English Composition I [3]	5
MMGT	223	Customer Service	3
		Total	**15.5**

Third Quarter

BUS&	101	Intro to Business	5
ECON	100	Fundamentals of Economics [2]	5
MMGT	101	Principles of Management	5
		Total	**15**

46 credits are required for the Certificate

1 ACCT 151 may be substituted with ACCT& 201.
2 ECON 100 may be substituted with a higher level ECON course.
3 ENGL& 101 may be substituted with BT 272, 274.

BUSINESS SOFTWARE SPECIALIST: SCC

Business Software Specialist
Associate in Applied Science

The Business Software Specialist degree is a two–year program with classes offered online or on–campus. This program combines training in information processing systems and office administration to give students the diversified training and background needed to hold positions of responsibility in business offices. Upon completion students will be prepared for administrative positions that require advanced spreadsheet, database, presentation, and project management software. This program provides students with one or more of the following additional areas: basic computer hardware troubleshooting, online collaboration, MOS certification, or basic network administration.

In order to earn a Business Software Specialist AAS degree, a student must maintain a 2.0 GPA in all individual courses.

First Quarter

BT	105	Basic Grammar for Business II	5
BT	106	Computing Essentials	5
BT	152	College and Career Strategies	3

CATT	102	Introduction to Outlook	2.5
		Total	**15.5**

Second Quarter

BT	127	Human Relations and Professional Development	3
BT	196	Skillbuilding	1
BUS	103	Basic Business Math and Electronic Calculators	5
CATT	190	Introduction to PowerPoint	2.5
MMGT	223	Customer Service	3
		Total	**14.5**

Third Quarter

BT	165	Word Processing	5
BT	204	Spreadsheet Design and Analysis	5
BT	274	Business Writing for the Web [1]	5
		Total	**15**

Fourth Quarter

BT	205	Database Design and Analysis	5
CATT	191	Advanced PowerPoint	2.5
CATT	241	Microsoft Project	2.5
CATT	242	Advanced Microsoft Project	2.5
CIS	103	Mobile Devices	5
		Total	**17.5**

Fifth Quarter

BT	251	Current Trends in Technology	5
BT	280	Project Management for the Office	2.5
CATT	128	Desktop Publishing	5
CIS	201	IT Essentials - A+	5
		Total	**17.5**

Sixth Quarter

BT	160	Job Preparation Techniques	3
BT	285	Administrative Professional Internship	2
CIS	112	Web Graphics with Photoshop	3
		Elective	7
		Total	**15**

95 credits are required for the Associate in Applied Science

Elective

ACCT	141	QuickBooks	1-5
ACCT	151	College Accounting I	5
ACCT&	201	Prin of Accounting I	5
BT	104	Basic Grammar for Business I	5
BT	206	Electronic Records Management	3
BT	274	Business Writing for the Web	5
BUS&	201	Business Law	5
BUS	204	Introduction to Law	5
BUS	280	Human Relations in Business	5
CATT	122	Microsoft Access I	2.5
CATT	222	Advanced Microsoft Access I	2.5
CATT	223	Advanced Microsoft Access II	2.5
CIS	104	Mobile Device Management	5
CIS	130	HTML5/CSS II	5
CIS	234	Network Scripting	3
CMST	127	Leadership Development	3-5
CMST&	210	Interpersonal Communication	5
CMST	287	Business and Professional Communication	3-5
MMGT	244	Introduction to Lean Six Sigma	2.5

[1] May be substituted with BT 272.

BUSINESS TECHNOLOGY AND SOFTWARE SPECIALIST: SFCC

Business Technology and Software Specialist
Associate in Applied Science

The Business and Technology Software Specialist is a two–year program of study. Students may participate in online or on–ground classes. Students learn about business and software technology, business organization, and management. Students apply a variety of written and oral communications, social media concepts and applications, and human relations throughout the program.

Students also gain a foundation of web page design, accounting, survey design, and management skills. Advanced classes continue to develop skills in Word, Excel, Access, and PowerPoint. Students explore current online technologies and digital devices.

This program is designed to prepare students for careers as software support specialists, business assistants, sales associates for hardware, software, and digital devices, information specialists, business assistants, and administrative assistants.

First Quarter

BT	106	Computing Essentials	5
BT	107	Business Communications [1]	5
BT	110	Strategies for Student Success	2
BUS	122	Practical Business Math	3
		Total	**15**

Second Quarter

BT	272	Business Correspondence	5
BUS&	101	Intro to Business	5
CAPPS	141	Word I	2
CAPPS	185	Digital Marketing Platforms	3
		Total	**15**

Third Quarter

BUS	280	Human Relations in Business [2]	5
CAPPS	151	Excel I	2
CAPPS	152	Excel II	2
CAPPS	161	Access I	2
CAPPS	171	PowerPoint I	2
CAPPS	180	Outlook	2
		Total	**15**

Fourth Quarter

BT	258	Desktop Publishing	5
IS	210	Internet Programming I	4
MMGT	125	Social Media Marketing	5
		Total	**14**

Fifth Quarter

BT	236	Virtual Business Practice [3]	5
BT	255	Business Productivity Tools	3
BT	260	Administrative Office Management	5
CAPPS	162	Access II	2
		Total	**15**

Sixth Quarter

ACCT	103	Fundamental Bookkeeping Procedures	3
BT	160	Job Preparation Techniques	3
BT	201	Information Processing	5
BT	234	Administrative Professional Practicum	5
		Total	**16**

90 credits are required for the Associate in Applied Science

[1] BT 107 may be substituted with ENGL& 101 English Composition I.
[2] BUS 280 may be substituted with CMST& 210 Interpersonal Communication.
[3] BT 236 may be substituted with MMGT 106 How to Start a Small Business.

BUSINESS WRITING: SCC

Effective Business Writing Certificate

Students who earn this certificate will build on essential writing skills, including the ability to make appropriate choices in style, grammar, and mechanics. Courses included in this certificate will build the skills necessary to create effective messages with clearly defined purposes for target audiences both on and off–line, utilizing writing styles and communication strategies appropriate for various channels and modes of communication. Toward that end, students will learn to perform research when appropriate to support clearly defined business purposes and to understand and implement both textual and non–textual styles of communication. Students who are awarded this certificate will earn at least a 3.0 grade in all courses.

First Quarter

BT	272	Business Correspondence [1]	5
BT	273	Business Research and Report Writing	5
BT	274	Business Writing for the Web [1]	5
		Total	**15**

15 credits are required for the Certificate

[1] BT 272 prerequisite writing score of at least 80 percent or successful completion of BT 105 with at least a 2.0 grade.

CLERICAL ASSISTANT: SCC

Administrative Clerical Assistant Certificate

The Clerical Assistant program is a two quarter program where students learn general office skills needed for entry–level office positions. Students may select one of three "tracks" in the second quarter. The first track will offer an introduction to the medical clerical assistant office, the second track an introduction to the legal clerical assistant office, and the third track an introduction to the administrative clerical assistant office.

Students develop effective written communication, oral communication, customer service, keyboarding, document formatting, office procedures, telephone, scheduling and calendaring, and job preparation skills. In addition, students who select the medical clerical assistant track will understand basic medical terminology; students who select the legal clerical assistant track will understand basic legal terminology; and students who select the administrative clerical assistant track will have additional grammar, editing, and proofreading experience.

First Quarter

BT	105	Basic Grammar for Business II	5
BT	106	Computing Essentials	5
BT	152	College and Career Strategies	3
CATT	102	Introduction to Outlook	2.5
		Total	**15.5**

Second Quarter

BT	127	Human Relations and Professional Development	3
BT	196	Skillbuilding	1
BUS	103	Basic Business Math and Electronic Calculators	5
CATT	190	Introduction to PowerPoint	2.5
MMGT	223	Customer Service	3
		Total	**14.5**

30 credits are required for the Certificate

Legal Clerical Assistant Certificate

The Clerical Assistant program is a two quarter program where students learn general office skills needed for entry–level office positions. Students may select one of three "tracks" in the second quarter. The first track will offer an introduction to the medical clerical assistant office, the second track an introduction to the legal clerical assistant office, and the third track an introduction to the administrative clerical assistant office.

Students develop effective written communication, oral communication, customer service, keyboarding, document formatting, office procedures, telephone, scheduling and calendaring, and job preparation skills. In addition, students who select the medical clerical assistant track will understand basic medical terminology; students who select the legal clerical assistant track will understand basic legal terminology; and students who select the administrative clerical assistant track will have additional grammar, editing, and proofreading experience.

First Quarter

BT	105	Basic Grammar for Business II	5
BT	106	Computing Essentials	5
BT	152	College and Career Strategies	3
CATT	102	Introduction to Outlook	2.5
		Total	**15.5**

Second Quarter

BT	127	Human Relations and Professional Development	3
BT	196	Skillbuilding	1
BUS	103	Basic Business Math and Electronic Calculators	5
LSEC	236	Legal Terminology	5
		Total	**14**

29.5 credits are required for the Certificate

Medical Clerical Assistant Certificate

The Clerical Assistant program is a two quarter program where students learn general office skills needed for entry–level office positions. Students may select one of three "tracks" in the second quarter. The first track will offer an introduction to the medical clerical assistant office, the second track an introduction to the legal clerical assistant office, and the third track an introduction to the administrative clerical assistant office.

Students develop effective written communication, oral communication, customer service, keyboarding, document formatting, office procedures, telephone, scheduling and calendaring, and job preparation skills. In addition, students who select the medical clerical assistant track will understand basic medical terminology; students who select the legal clerical assistant track will understand basic legal terminology; and students who select the administrative clerical assistant track will have additional grammar, editing, and proofreading experience.

First Quarter

BT	105	Basic Grammar for Business II	5

BT	106	Computing Essentials	5
BT	152	College and Career Strategies	3
CATT	102	Introduction to Outlook	2.5
		Total	**15.5**

Second Quarter

BT	127	Human Relations and Professional Development	3
BT	196	Skillbuilding	1
HED	104	Medical Terminology and Anatomy	5
MSEC	108	Medical Office Computing	5
		Total	**14**

29.5 credits are required for the Certificate

COMPUTER FORENSICS / NETWORK SECURITY: SFCC

Computer Forensics/Network Security Certificate

The Computer Forensics/Network Security program is designed to provide students with capabilities in several areas of computing:

- Digital evidence recovery
- Forensic laboratory analysis
- Legal and technical issues regarding seizure and acquiring computer evidence, and chain of custody
- Computer network protocols and security, intrusion detection, and network forensics

This certificate is intended to provide students with the essential skills, knowledge and experience necessary to deal with computer forensics and computer/network security.

NOTE: This certificate is not for beginners; please contact the department for more information.

First Quarter

IS	132	Computer Ethics and Law	5
IS	162	Data Communications and Networks	3
IS	210	Internet Programming I	3
IS	260	Database Theory	5
		Total	**16**

Second Quarter

IS	234	Computer Forensics I	5
IS	244	Network Security I	5
IS	262	Network Management	5
		Total	**15**

Third Quarter

CS	121	UNIX/Linux	3
IS	236	Computer Forensics II	5
IS	245	Network Security II	5
		Total	**13**

44 credits are required for the Certificate

COMPUTER NETWORK SUPPORT: SFCC

Computer and Network Support Certificate

This certificate concentrates on the practical operation, maintenance and use of computers, computer networks and their peripherals. This intensive hands–on program prepares the certificate holder to maintain the hardware and software of small to medium computer and network systems. Computers are networked in LANs and on the Internet in homes, industries and offices. This program teaches students to maintain and keep these systems running. Students also learn to assist and train computer users in the use of modern software and hardware.

This certificate is intended to prepare students for entry–level positions in computer/network support departments or as the computer/network specialist in a small to medium size office. Students are expected to have other skills needed to integrate this certificate with the skills necessary for the nature of employment they have or seek.

It is recommended that students take IS 103 – Information Technology Fundamentals, IS 144 – Programming Fundamentals and IS 160 – Internet Fundamentals.

First Quarter

IS	132	Computer Ethics and Law	5
IS	162	Data Communications and Networks	3
IS	260	Database Theory	5
		Total	**13**

Second Quarter

IS	140	Computer and Network Support	5
IS	244	Network Security I	5
IS	262	Network Management	5
		Total	**15**

Third Quarter

BUS	280	Human Relations in Business [1]	5
CS	121	UNIX/Linux	3
IS	210	Internet Programming I	3
IS	228	Internet Servers	5
		Total	**16**

44 credits are required for the Certificate

[1] BUS 280 may be substituted with HS 136.

COMPUTER SCIENCE & INFORMATION SYSTEMS: SFCC

Bachelor of Applied Science – Information Systems and Technology

The baccalaureate in IST builds on technical skills that entering students bring from their associate degrees (90 credits), adding theoretical knowledge, general education, and advanced technical skills. Successful graduates of the Information Systems and Technology degree will be able to:

- Apply a broad understanding of information systems and technology, creative problem solving techniques and systems thinking to developing organizational solutions;
- Apply core competencies learned to function as a successful professional in the field of Information Systems and Technology;
- Work independently and cooperatively to deliver reports, programs, projects, and other deliverables that document a business organization's information technology requirements;
- Demonstrate proficiency in selecting, implementing, and operating information technology solutions to meet organizational requirements;
- Demonstrate the ability to search, analyze, and synthesize current information and solutions in the rapidly changing information technology profession;
- Base decisions and actions on the legal, ethical, and professional guidelines and practices of the information technology field;
- Engage in continuing professional development through lifelong learning;
- Analyze and apply sustainable business practices;

- Demonstrate the breadth and depth of the educational preparation through the completion of a capstone project.

Within the four years of an applied baccalaureate degree, general education credits must include a minimum of:

- Ten (10) credits of communication skills, including one English composition course, e.g. ENGL& 101;
- Five (5) credits of quantitative/symbolic reasoning skills;
- Ten (10) credits of humanities;
- Ten (10) credits of social sciences;
- Ten (10) credits of natural science, including at least five (5) credits in physical, biological and/or earth sciences, including at least one course with a lab.
- 15 credits of remaining general education courses to achieve the required 60 credits.

Typically, at least 15 general education credits are satisfied at the associate degree level as confirmed by entrance pre–requisites, and the remaining 45 credits are satisfied with courses in quantitative skills, humanities, social sciences and natural sciences. All graduates of the IST baccalaureate program are expected to have core technical knowledge across the information systems and technology space. These following subject areas are required (Associate or higher degree): Unix / Linux, Programming, Ethics & Law in Information Technology, Database Theory and Development, Networking and Security. This knowledge has to be acquired before entering the BAS IST program. General education requirements and courses recommendation are outlined in the following table.

Courses

		AA or AAS Degree	90
		Total	**90**

First Quarter

ISIT	310	Routing and Switching in the Enterprise	5
ISIT	344	Virtualization and Storage	5
PSYC	333	Motivation	5
		Total	**15**

Second Quarter

CMST	430	Organizational Communication	5
ISIT	332	Data Warehousing	5
		Non Lab Science	5
		Total	**15**

Third Quarter

CMST	320	Professional Communication	5
ISIT	360	Database Application Development	5
		Computation Elective	5
		Total	**15**

Fourth Quarter

ECON&	202	Macro Economics	5
ISIT	444	Automation/Configuration Management	5
PHIL	330	Professional Ethics	5
		Total	**15**

Fifth Quarter

BMGT	342	Project Management	5
ISIT	410	Enterprise Server Administration	5
ISIT	470	Systems Analysis and Design	5
		Total	**15**

Sixth Quarter

CMST	227	Intercultural Communication	5
ISIT	475	Capstone Internship	5
		General Education [1]	5
		Total	**15**

180 credits are required for the Bachelor of Applied Science

Computation Elective

MATH&	107	Math in Society	5
MATH&	141	Precalculus I	5
MATH	300	Mathematical Modeling for Applied Science	5

[1] See Adviser – 5 Credits

COSMETOLOGY: SCC

Cosmetology
Associate in Applied Science

Cosmetology is a diverse field that offers a variety of employment opportunities. SCC's Cosmetology program provides the education and training needed to successfully compete in today's job market. Upon successful completion of the 1,600 hour program, students are prepared to take the Washington State Board Exams. After passing this exam, they will be qualified to receive a license for Cosmetology.

This program includes haircutting, trimming of facial hair, hair styling, permanent waving, chemical relaxing, tinting and bleaching, and temporary superfluous hair removal; artificial hair; manicuring and pedicuring of natural nails; basic skin care and theory of diseases and disorders of the scalp, skin, hair and nails; and anatomy as it relates to cosmetology. In addition, safety and sanitation measures are stressed throughout the program. Students also must complete a first aid class. Students will be given review testing and simulated performance evaluations in preparation for the state licensing examination.

Students must complete the program and pass the exit exams in order to be prepared to take the Washington State examination for Cosmetology.

Additional requirements for the AAS degree consist of general education requirements in the areas of written communication, human relations/leadership and computation. Students should check with the counseling department for assistance in planning their schedules.

Program Requirements:

- Students must maintain a 2.1 in all professional classes to complete the program and pass exit exams with a minimum score of 2.1 to be prepared to take the Washington state licensing exam for cosmetology; students must earn a 2.0 in all other classes.
- Upon successful completion of the coursework, the student will be prepared to take the Washington State Examination of Cosmetology.

Physical Requirements:

- Normal or corrected vision
- Physical dexterity, i.e., small grasp manipulation
- Must be able to work with arms at shoulder level for extended periods of time
- Must be able to stand for extended periods of time

First Quarter

APLED	112	Applied Mathematics	5
APLED	113	Introduction to Computers for Technology [1]	5
APLED	121	Applied Written Communication [2]	4
COS	101	Introduction to Cosmetology	2
		Total	**16**

Second Quarter

COS	111	Cosmetology, Esthetics and Manicuring Concepts I	5
COS	112	Cosmetology, Esthetics and Manicuring Applications I	12
		Total	**17**

Third Quarter

COS	121	Cosmetology, Esthetics and Manicuring Concepts II	5
COS	122	Cosmetology, Esthetics and Manicuring Applications II	11
		Total	**16**

Fourth Quarter

COS	131	Intermediate Cosmetology I	5
COS	132	Intermediate Cosmetology Applications I	11
		Total	**16**

Fifth Quarter

COS	241	Intermediate Cosmetology II	5
COS	242	Intermediate Cosmetology Applications II	10
EMS	120	Basic First Aid in the Workplace	2
		Total	**17**

Sixth Quarter

COS	251	Advanced Cosmetology I	5
COS	252	Advanced Cosmetology Applications I [4]	10
		Approved Human Relations Electives	3
		Total	**18**

Seventh Quarter

COS	261	Advanced Cosmetology II	5
COS	262	Advanced Cosmetology Applications II [4]	10
		Approved Human Relations Electives	5
		Total	**20**

120 credits are required for the Associate in Applied Science

Approved Human Relations Electives

APLED	123	Leadership Skills for Business and Industry	3-4
APLED	125	Employment Preparation	3
BUS	280	Human Relations in Business	5
CMST&	101	Introduction to Communication	5
CMST	121	Job Communication Skills	2-5
CMST	127	Leadership Development	3-5
CMST	287	Business and Professional Communication	3-5

1 This course may be substituted with CIS 110.

2 This course may be substituted with ENGL& 101, 102, ENGL 104, 188, 235, 238, 335, or BT 272.

3 This course may be substituted with HLTH 174.

4 COS 252 or COS 262 may be substituted with COS 288.

5 COS 275 is available for students who have not accumulated enough hours to satisfy the Cosmetology AAS degree requirements.

CRIMINAL JUSTICE: SCC

Criminal Justice
Associate in Applied Science

The Criminal Justice curriculum is made up of courses and a carefully selected group of general education requirements designed to prepare each student for a career in the field of criminal justice. These courses prepare students with theory and practical skills in the areas of criminal law, investigations, interview, communications, human relations, and other criminal justice topics.

Students in this field are encouraged to seek academic counseling. Only a portion of this two–year AAS degree is transferable to four–year institutions. Students interested in four–year degrees should inquire at the college to which they plan to transfer for specific information.

Credits from the police academy training can apply toward meeting the course requirements of this program.

Students may take required courses any time they are offered. (Not all classes are offered every quarter.)

Program Requirements: admittance to the Criminal Justice core classes requires the student's age to be 18 or with instructor's permission. All students are required to carry student accident insurance throughout their enrollment in the Criminal Justice program.

Courses

CJ&	101	Intro to Criminal Justice	5
CJ&	104	Intro to Policing	5
CJ&	105	Intro to Corrections	5
CJ&	106	Intro to Juvenile Justice	5
CJ&	110	Intro to Criminal Law [1]	5
CJ&	112	Intro to Criminology	5
CJ	128	Police Ethics	5
CJ	201	Constitutional Law and Criminal Procedure [2]	5
CJ	202	Criminal Justice Communications	4
CJ	204	Community Relations	5
CJ	212	Professional Development	2
CJ	217	Criminal Justice Technical Writing [3]	5
CJ	229	Crisis Intervention Training	5
CJ	249	21st Century Police Operations [4]	5
CMST&	210	Interpersonal Communication	5
ENGL&	101	English Composition I	5
ENGL&	102	Composition II	5
		Criminal Justice Electives	9
		Math [7]	5
		Total	**95**

95 credits are required for the Associate in Applied Science

Criminal Justice Electives [6]

CJ	108	Intro to Traffic Enforcement	3
CJ&	210	Police Organization and Management	5
CJ	234	Organized Crime and Homeland Security	4
CJ	235	Firearms Safety [5]	2
CJ	236	Firearms Qualifications	2
CJ&	240	Intro to Forensics	5

1 ENGL& 101.

2 ENGL& 101, 102, and CJ& 110.

3 ENGL& 101 and 102.

4 ENGL& 101 and CJ& 110.

5 Concurrent enrollment with CJ 236.

6 1–6 PE credits satisfy Criminal Justice electives.

7 APLED 112, BUS 103, or any math course numbered 100 or above.

CULINARY: SCC

Culinary Arts
Associate in Applied Science

Basic and advanced procedures in food preparation are included in the two–year Culinary Arts program. A detailed study is made of the various cooking methods for meats, fish, poultry, vegetables, soups and sauces. Menu terminology and cooking terms are defined and illustrated. Students are given the opportunity to study management factors affecting food cost control, specifications and standards for foods, sanitation, kitchen planning, kitchen equipment, and personnel policies.

This program is accredited by the American Culinary Federation (ACF).

Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

First Quarter

CUL	110	Introduction to Culinary Arts	5
CUL	115	Food Sanitation [2]	3
EMS	120	Basic First Aid in the Workplace	2
HM	112	Hospitality Mathematics	3
HM	130	Human Relations	5
		Total	**18**

Second Quarter

APLED	121	Applied Written Communication	4
CUL	124	Cooking Applications I [1]	10
CUL	126	Food Science	5
		Total	**19**

Third Quarter

CUL	253	Advanced Cooking Theory	5
CUL	254	A la Carte Cooking I	10
HM	116	Nutrition for Chefs and Restaurant Managers	3
		Total	**18**

Fourth Quarter

CUL	255	Menu Planning	3
CUL	260	Presidential	1
CUL	263	Theory of Modern Cuisine	5
CUL	264	A la Carte Cooking II	9
		Total	**18**

Fifth Quarter

BAK	140	Yeast Doughs	1
CUL	243	Theory of Restaurant Baking	5
CUL	244	Restaurant Baking Applications	10
CUL	265	Hospitality Cost Controls	5
		Total	**21**

Sixth Quarter

CUL	123	Espresso	2
CUL	127	Banquet Service	2
CUL	131	A la Carte Service	9
		Total	**13**

107 credits are required for the Associate in Applied Science

1 This course may be substituted with any course or combination of courses approved by the instructional dean.
2 This course is required for certification by the Educational Foundation of the National Restaurant Association.

CUSTOMER SERVICE REPRESENTATIVE: SCC

Customer Service Representative
Associate in Applied Science

The Customer Service degree is a two–year professional program. The Customer Service Representative program provides the business background and human relations skills needed to work successfully with clients and customers. Students may participate in online or on–ground classes. This degree prepares students for jobs as customer service representatives. An associate's degree in customer service introduces students to techniques used to deliver quality customer service care. Students develop their communication, marketing, personnel supervision and customer relations skills. Subjects taught during a customer service training program are a combination of business and customer service specific courses. These individuals are the face of the company and are the ones who deal with customers in a friendly and courteous manner. Customer service professionals are required to interact with customers before, during, and after the sale has been made as well. Customer service training program graduates will also have a better chance of reaching the supervisory or management levels in this field.

College credit toward degree completion may be earned by articulating from a high school business program, by prior learning assessment, or by completing comprehensive tests administered by the Business Technology Department.

In order to earn a Customer Service Representative AAS degree, a student must maintain a 2.0 GPA in all individual courses.

First Quarter

BT	105	Basic Grammar for Business II	5
BT	106	Computing Essentials	5
BT	152	College and Career Strategies	3
CATT	102	Introduction to Outlook	2.5
		Total	**15.5**

Second Quarter

BT	127	Human Relations and Professional Development	3
BT	196	Skillbuilding	1
BUS	103	Basic Business Math and Electronic Calculators	5
CATT	190	Introduction to PowerPoint	2.5
MMGT	223	Customer Service	3
		Total	**14.5**

Third Quarter

BT	272	Business Correspondence [1]	5
CATT	120	Microsoft Word I [2]	2.5
CATT	121	Microsoft Word II [2]	2.5
CATT	138	Microsoft Excel I [3]	2.5
CATT	139	Microsoft Excel II [3]	2.5
		Total	**15**

Fourth Quarter

ACCT	151	College Accounting I [4]	5
BT	231	Office Procedures	5
BUS&	101	Intro to Business	5
		Total	**15**

Fifth Quarter

BT	206	Electronic Records Management [5]	3
BUS	280	Human Relations in Business [6]	5
CATT	122	Microsoft Access I [5]	2.5
		Electives	5
		Total	**15.5**

Sixth Quarter

BT	160	Job Preparation Techniques	3
BT	260	Administrative Office Management	5
BT	285	Administrative Professional Internship	2
		Electives	5
		Total	**15**

90.5 credits are required for the Associate in Applied Science

Electives

ACCT	141	QuickBooks	5
BT	251	Current Trends in Technology	5
BT	273	Business Research and Report Writing	5
BT	274	Business Writing for the Web	5
CATT	128	Desktop Publishing	5
CATT	191	Advanced PowerPoint	2.5
CATT	220	Advanced Microsoft Word I	2.5
CATT	221	Advanced Microsoft Word II	2.5
CATT	222	Advanced Microsoft Access I	2.5
CATT	223	Advanced Microsoft Access II	2.5
CATT	238	Advanced Microsoft Excel I	2.5
CATT	239	Advanced Microsoft Excel II	2.5
CATT	241	Microsoft Project	2.5
CATT	242	Advanced Microsoft Project	2.5
CMST	127	Leadership Development	3-5
CMST&	210	Interpersonal Communication	5
CMST	287	Business and Professional Communication	3-5
ECON	100	Fundamentals of Economics	5
MMGT	125	Social Media Marketing	5
MMGT	212	Retailing	5

1 BT 272 may be substituted with BT 274.

2 CATT 120 and CATT 121 may be substituted with BT 165.

3 CATT 138 and CATT 139 may be substituted with BT 204.

4 ACCT 151 may be substituted with ACCT& 201.

5 CATT 122 and BT 206 may be substituted with BT 205.

6 BUS 280 may be substituted with CMST& 210.

CYBER SECURITY: SFCC

Bachelor of Applied Science – Cyber Security

The BAS Cyber builds on technical skills that entering students bring from their associate degrees, adding theoretical knowledge, general education, and advanced technical skills. Successful graduates of the Cyber Security degree will be able to:

- Prepare a security and risk management plan including compliance, law, regulation and business continuity.
- Apply a comprehensive process to ensure the protection and security of assets.
- Compare and contrast different security models and engineering processes including security architectures, designs, systems vulnerabilities and cryptography.
- Employ encryption technologies to protect data transmissions and data storage.
- Develop a comprehensive identity management and access control plan.
- Design security assessment and testing processes comprising design, performance and analysis security testing.
- Analyze and formulate security operations approaches related to foundational concepts, investigations, incident management, and disaster recovery.

Courses

		AA or AAS Degree	90
		Total	**90**

First Quarter

CYBR	350	Risk Management	5
CYBR	410	Encryption	5
PSYC	333	Motivation	5
		Total	**15**

Second Quarter

CMST	430	Organizational Communication	5
CYBR	320	Ethical Hacking	5
		Non-Lab Science	5
		Total	**15**

Third Quarter

CMST	320	Professional Communication	5
CYBR	330	Endpoint Security	5
MATH	300	Mathematical Modeling for Applied Science	5
		Total	**15**

Fourth Quarter

CYBR	430	Cyber Security Policies and Framework	5
ECON&	202	Macro Economics	5
PHIL	330	Professional Ethics	5
		Total	**15**

Fifth Quarter

BMGT	342	Project Management	5
CYBR	440	Security and Compliance	5
CYBR	470	Identity Management	5
		Total	**15**

Sixth Quarter

CMST	227	Intercultural Communication	5
CYBR	475	Capstone Internship	5
		General Education	5
		Total	**15**

180 credits are required for the Bachelor of Applied Science

DENTAL: SCC

Dental Assisting
Associate in Applied Science

Dental Assisting is a one year Allied Health profession specifically concerned with preparing the student for employment as a chairside dental assistant to the dentist and other auxiliaries. In addition to the certificate an additional year is available for the AAS degree.

The primary role of the dental assistant includes several modalities which include:

Chairside area: review and record medical and dental histories and any other data required; prepare treatment rooms and patients for treatment; chart and document patients information; assist the dentist and other auxiliaries in general and specialty treatment of patients; Instruct patients in oral hygiene techniques and various dental procedures; prepare various dental materials; sterilize and disinfect dental instruments and equipment.

Perform a variety expanded functions that are legal in the state of Washington. (see Department of Health WAC 246–817–520); Expose, process and mount various types of traditional and digital radiographs becoming proficient in the various types of equipment which require a highly skilled operator to obtain the imaging information and other data required.

Reception area: appoint patients for treatments, maintain a patient recall system, file and maintain patient and office records, complete patient insurance forms and make financial arrangements with patients; order and maintain dental supplies and equipment.

This program is accredited by the American Dental Association (http://www.ada.org/en/coda/accreditation) American Dental Association Commission on Dental Accreditation 211 East Chicago Avenue Chicago, Illinois 60611 Phone (800) 621.8099 or (312) 440.4653.

Students who successfully complete the program are eligible to take the Dental Assisting National Board exam immediately following graduation. Students in this program are required to complete three separate clinical internships.

Courses

BIOL&	160	General Biology w/Lab	5
CHEM&	110	Chemical Concepts w/Lab [1]	5
CMST&	101	Introduction to Communication	5
PSYC&	100	General Psychology	5
SOC&	101	Intro to Sociology	5
		Communication or Humanities Electives	10
		Math/Science Elective	5
		Social Science Elective	5
		Total	**45**

First Quarter

DENT	111	Introduction to Dental Assisting	5
DENT	112	Chairside Related Theory	4
DENT	114	Introduction to Dental Radiology	3
DENT	116	Dental Restorative Techniques	3
DENT	118	Dental Anatomy	4
ENGL&	101	English Composition I	5
		Total	**24**

Second Quarter

CMST&	210	Interpersonal Communication	5
DENT	121	Intermediate Chairside Assisting	6
DENT	122	Chairside Related Theory	4
DENT	124	Advanced Dental Radiology	2
DENT	126	Dental Restorative Techniques	4
DENT	129	Chairside Clinical Experience	2
		Total	**23**

Third Quarter

DENT	131	Advanced Chairside Assisting	6
DENT	136	Dental Restorative Techniques	2
DENT	138	Office Management	3
DENT	139	Chairside Clinical Experience	8
		Total	**19**

111 credits are required for the Associate in Applied Science

[1] CHEM& 110 may be substituted with CHEM& 121.

Dental Assisting
Certificate

Dental Assisting is a one year Allied Health profession specifically concerned with preparing the student for employment as a chairside dental assistant to the dentist and other auxiliaries. In addition to the certificate an additional year is available for the AAS degree.

The primary role of the dental assistant includes several modalities which include:

Chairside area: review and record medical and dental histories and any other data required; prepare treatment rooms and patients for treatment; chart and document patients information; assist the dentist and other auxiliaries in general and specialty treatment of patients; Instruct patients in oral hygiene techniques and various dental procedures; prepare various dental materials; sterilize and disinfect dental instruments and equipment. Perform a variety expanded functions that are legal in the state of Washington. (see Department of Health WAC 246–817–520); Expose, process and mount various types of traditional and digital radiographs becoming proficient in the various types of equipment which require a highly skilled operator to obtain the imaging information and other data required.

Reception area: appoint patients for treatments, maintain a patient recall system, file and maintain patient and office records, complete patient insurance forms and make financial arrangements with patients; order and maintain dental supplies and equipment.

This program is accredited by the American Dental Association (http://www.ada.org/en/coda/accreditation) American Dental Association Commission on Dental Accreditation 211 East Chicago Avenue Chicago, Illinois 60611 Phone (800) 621.8099 or (312) 440.4653.

Students who successfully complete the program are eligible to take the Dental Assisting National Board exam immediately following graduation. Students in this program are required to complete three separate clinical internships.

First Quarter

DENT	111	Introduction to Dental Assisting	5
DENT	112	Chairside Related Theory	4
DENT	114	Introduction to Dental Radiology	3
DENT	116	Dental Restorative Techniques	3
DENT	118	Dental Anatomy	4
ENGL&	101	English Composition I	5
		Total	**24**

Second Quarter

CMST&	210	Interpersonal Communication	5
DENT	121	Intermediate Chairside Assisting	6
DENT	122	Chairside Related Theory	4
DENT	124	Advanced Dental Radiology	2
DENT	126	Dental Restorative Techniques	4
DENT	129	Chairside Clinical Experience	2
		Total	**23**

Third Quarter

DENT	131	Advanced Chairside Assisting	6
DENT	136	Dental Restorative Techniques	2
DENT	138	Office Management	3
DENT	139	Chairside Clinical Experience	8
		Total	**19**

66 credits are required for the Certificate

Expanded Function Dental Auxiliary Certificate

A two–quarter program designed to prepare the student for employment as an Expanded Function Dental Auxiliary to the dentist. A third quarter is available for preparation of national and state examinations.

This program is designed for the dental assistant or dental hygienist who has graduated from a school that is accredited by the American Dental Association, Commission on Dental Accreditation (CODA) or has successfully completed the Dental Assisting National Board examination or a Licensed Dental Hygienist. The program will cover content that will prepare the student to pass both a written and a clinical examination to become a Washington State, Expanded Function Dental Auxiliary (EFDA). Students upon passing the examinations can seek licensure to become EFDAs.

The course will include the evaluation of the student's ability to perform identified skills under the dentist's general supervision to include: patient oral health instruction, coronal polishing, fluoride treatments, sealants, expose, process and mount dental radiographs, knowledge of dental morphology, pharmacology, emergencies, risk management as related to dental charting, health history alerts, and temporization.

Students will cover content which focuses on the didactic, laboratory and clinical components of the amalgam and composite curriculum to include: armamentarium including various matrices, classification of restorations, components of the prepared tooth; materials, composition of amalgam and composite materials, advantages and disadvantages, indications and contraindication; placement and finishing of composites, placement condensing and carving of amalgams; evaluation of restoration; and occlusal adjustment.

The course will cover content on the didactic and laboratory components of taking preliminary and final impressions and bite registrations to include computer assisted design and computer assisted manufacture applications.

Admission Recommended/Required:

- Dental Assisting National Board Current Certification Card and/or Certificate or Degree from a Dental Assisting or Dental Hygiene program that is accredited by the American Dental Association, Commission on Dental Accreditation (CODA).
- Computer skills recommended
- Active email account required
- Each required course for graduation must be completed with a 2.0 grade or better before proceeding to the next quarter.
- Students may repeat an advanced dental assisting course once, but it must be repeated within two years.

First Quarter

DENT	141	EFDA Review Class	5
DENT	142	EFDA Review Lab	2
DENT	144	EFDA Amalgam Restorations	2
DENT	145	EFDA Amalgam Lab	4
DENT	148	EFDA Amalgam Clinical	3
		Total	**16**

Second Quarter

DENT	151	EFDA Composite Restorations	3
DENT	152	EFDA Composite Lab	4
DENT	154	EFDA Composite Clinical	3
DENT	155	EFDA Impressions/Provisional	3
DENT	158	EFDA Impressions/Provisional-Lab	2
DENT	160	EFDA Exam Preparation	3
		Total	**18**

34 credits are required for the Certificate

DIAGNOSTIC MEDICAL SONOGRAPHY: SCC

Diagnostic Medical Sonography Associate in Applied Science

Diagnostic Medical Sonography is an allied Health Profession where non–physician professionals perform a diagnostic procedure using high frequency sound waves (ultrasound) to produce dynamic visual images of organs, tissues, or blood flow inside the body. Sonography is used to examine many parts of the body: abdomen, breasts, OB/GYN, thyroid, scrotum, and blood vessels. It is also used to guide needles for tissue biopsy or drain an abnormal fluid collection from a body cavity. Sonography is a radiation–free imaging modality and procedures are performed at the request of a physician.

A diagnostic medical sonographer is a highly–skilled professional who uses specialized equipment to create images of structures inside the human body that are used by physicians to make a medical diagnosis. Prior to starting a procedure, the sonographer must obtain an appropriate history, assess physical findings and review pertinent laboratory data. This information is used to tailor the procedure to ensure comprehensive and diagnostic images are acquired.

The program meets the criteria set forth by the Joint Review Committee on Diagnostic Medical Sonography and is accredited by CAAHEP. Upon completion and graduation of the program, graduates are able to take the national Abdomen and OB/GYN registry examinations administered by the American Registry of Diagnostic Medical Sonography.

Admission Requirements:

- Sonography courses are limited to students of the Diagnostic Medical Sonography program
- Active email account required
- Appropriate math score
- Self–place into English
- A 2.5 grade in each prerequisite course is required and course completion should be no older than 5 years
- Admission to the DMS program is competitive and based on panel interview, pre–requisite course GPA, additional math, science, and healthcare related coursework, quality of reference letters, and completion of 40 hours volunteerism in healthcare and ultrasound.
- A 2.0 (79%) is required in every program course to proceed to the next quarter
- National background check is conducted 1st and 4th quarters of the program
- Immunizations, current healthcare provider CPR, and 7 hour blood borne pathogen training are required prior to clinical internship in the 4th quarter
- Selective clinical sites require a ten–panel drug screen within 30 days of clinical internship
- Return to the program is based on "space available" and requires remedial work to demonstrate knowledge base appropriate with program re–entry point.
- After re–entry, students may only repeat a class one time. Repeat of courses must be completed within two years.

Admission Recommendations:

- Computer skills are recommended
- Some students find completion of CHEM 120 Organic and Biochemistry for Health Sciences, and CHEM 121 helpful to learning in the program
- Additional healthcare related courses such as HED 109, 129, or nursing assistant coursework

After entering the Diagnostic Medical Sonography program, students are required to maintain a minimum of a 2.0 grade in each class before proceeding to the next quarter. Students need

to realize that clinical site placement could require relocation outside of the immediate Spokane area for 10 months.

Prerequisites

BIOL&	160	General Biology w/Lab	
BIOL&	241	Human A & P 1	
BIOL&	242	Human A & P 2	
CMST&	210	Interpersonal Communication	
ENGL&	101	English Composition I	
HED	125	Medical Terminology	
MATH	108	College Algebra	
PHYS	100	Introductory Physics	

First Quarter

HED	109	Human Physiology and Disease	5
SONO	111	Diagnostic Ultrasound I	2
SONO	112	Vascular Fundamentals	4
SONO	121	Human Cross-Section Anatomy	4
SONO	125	Ultrasound Physics and Instrumentation I	5
		Total	**20**

Second Quarter

SONO	122	Vascular Procedures I	4
SONO	131	Diagnostic Ultrasound II	5
SONO	132	Abdominal Pathophysiology	4
SONO	135	Ultrasound Physics and Instrumentation II	5
		Total	**18**

Third Quarter

SONO	123	Survey of Cardiac Sonography	5
SONO	141	Diagnostic Ultrasound III	5
SONO	144	OB/GYN Pathophysiology	4
		Total	**14**

Fourth Quarter

SONO	142	Diagnostic Ultrasound IV	4
SONO	143	Sonography Clinical I	9
		Total	**13**

Fifth Quarter

SONO	251	Advanced Sonography	4
SONO	253	Sonography Clinical II	9
		Total	**13**

Sixth Quarter

SONO	263	Sonography Clinical III	13
		Total	**13**

Seventh Quarter

SONO	273	Sonography Clinical IV	13
		Total	**13**

104 credits are required for the Associate in Applied Science

1 MATH 097, 098, or 099 with a 2.0 or better within the last three years or appropriate placement score.

DIESEL/HEAVY DUTY EQUIPMENT: SCC

Diesel/Heavy Duty Equipment
Associate in Applied Science

Diesel/Heavy Duty mechanics repair and maintain trucks, busses, logging, mining, agricultural and construction equipment. In addition, they maintain and repair diesel and gasoline engines, compressors and pumps.

Students may enter the program any quarter.

First Quarter

APLED	121	Applied Written Communication [1]	4
HEQ	111	Basic Electrical Theory	7
HEQ	112	Basic Electrical Applications	9
		Total	**20**

Second Quarter

APLED	112	Applied Mathematics [1]	4
HEQ	121	Basic Principles of Engine Theory	7
HEQ	122	Basic Engine Applications	9
		Total	**20**

Third Quarter

APLED	123	Leadership Skills for Business and Industry [1]	4
HEQ	131	Principles of Power Train Theory	7
HEQ	132	Power Train Applications	9
		Total	**20**

Fourth Quarter

HEQ	241	Heavy Equipment Hydraulic Theory	7
HEQ	242	Heavy Duty Equipment Hydraulic Application	9
WELD	151	HEQ Welding I	3
		Total	**19**

Fifth Quarter

HEQ	251	Practical Shop Procedures	7
HEQ	252	Practical Shop	9
WELD	152	HEQ Welding II	3
		Total	**19**

Sixth Quarter

HEQ	261	Practical Shop Procedures [2]	7
HEQ	262	Practical Shop [2]	6
HEQ	294	Special Problems [3]	3
		Total	**16**

114 credits are required for the Associate in Applied Science

1 This related education requirement may be met by any course or combination of courses approved by the instructional dean.
2 2 credits of HEQ 266 and 11 credits of HEQ 267 may be substituted for HEQ 261 and 262. 16 credits of HEQ 288 with no seminar may be substituted for HEQ 261, 262 and 294. (This option requires HEQ department approval).
3 3 credits of HEQ 291, 292 and 293 may be substituted for HEQ 294. (This option requires HEQ department approval).

DIGITAL MARKETING: SFCC

Digital Marketing Specialist
Associate in Applied Science

Digital marketing is everywhere today and businesses are using it to reach their customers. In this program students will learn to use a wide variety of digital channels and media to effectively and efficiently promote products and services. This program prepares students to work in the field of social media and marketing. Students will learn to combine photography and video elements into marketing campaigns that are now an integral part of a successful business.

Students will learn a solid foundation of computer, communication, and media production concepts while obtaining a solid grasp of digital marketing management and strategies. This program allows the student to participate in a professional internship component. Students may begin in entry–level positions and work toward advancement and promotion.

First Quarter

BT	106	Computing Essentials	5
BT	107	Business Communications	5
BT	110	Strategies for Student Success	2
BUS	122	Practical Business Math	3
		Total	**15**

Second Quarter

CAPPS	141	Word I	2
CAPPS	142	Word II	2
CAPPS	151	Excel I	2
CAPPS	152	Excel II	2
MMGT	125	Social Media Marketing	5
MMGT	223	Customer Service	3
		Total	**16**

Third Quarter

BT	272	Business Correspondence	5
CAPPS	180	Outlook	2
CAPPS	185	Digital Marketing Platforms	3
MMGT	211	Marketing	5
		Total	**15**

Fourth Quarter

BT	258	Desktop Publishing	5
IS	132	Computer Ethics and Law	5
PHOTO	126	Digital Photography	5
		Total	**15**

Fifth Quarter

BT	236	Virtual Business Practice	5
MMGT	126	Search Engine Marketing	5
PHOTO	237	Introduction to Documentary DV Production	5
		Total	**15**

Sixth Quarter

BT	285	Administrative Professional Internship	2
IS	210	Internet Programming I	3
MMGT	128	Social Media Marketing Campaign	5
PHOTO	200	Photography Media	4
		Total	**14**

90 credits are required for the Associate in Applied Science

Digital Marketing Specialist
Certificate

Digital marketing is everywhere today and businesses are using it to reach their customers. In this program students will learn to use a wide variety of digital channels and media to effectively and efficiently promote products and services. This program prepares students to work in the field of social media and marketing. Students will learn to combine photography and video elements into marketing campaigns that are now an integral part of a successful business.

Students will learn a solid foundation of computer, communication, and media production concepts while obtaining a solid grasp of digital marketing management and strategies. This program allows the student to participate in a professional internship component. Students may begin in entry–level positions and work toward advancement and promotion.

First Quarter

BT	106	Computing Essentials	5
BT	107	Business Communications	5
BT	110	Strategies for Student Success	2
BUS	122	Practical Business Math	3
		Total	**15**

Second Quarter

CAPPS	141	Word I	2
CAPPS	142	Word II	2
CAPPS	151	Excel I	2
CAPPS	152	Excel II	2
MMGT	125	Social Media Marketing	5
MMGT	223	Customer Service	3
		Total	**16**

Third Quarter

BT	272	Business Correspondence	5
CAPPS	180	Outlook	2
CAPPS	185	Digital Marketing Platforms	3
MMGT	211	Marketing	5
		Total	**15**

46 credits are required for the Certificate

DIGITAL MEDIA PRODUCTION: SFCC

Digital Media Production
Associate in Applied Science–Transfer

The Digital Media Production AAS–T degree in an interdisciplinary study of photography, filmmaking, and writing that prepares students to pursue careers in a variety of communication fields such as news reporting, photojournalism, video production, and social media marketing.

The Digital Media Production AAS–T degree will allow students to draw upon the strengths of various existing departments to help develop the skills necessary to succeed in various, rapidly evolving field centered around digital media production.

By bringing together resources from photography, film, journalism, and graphic design, the AAS–T degree in Digital Media Production will help students develop marketable skills in visual storytelling.

First Quarter

ENGL&	101	English Composition I	5
PHOTO	101	Introduction to Photography	5
PHOTO	126	Digital Photography	5
		Total	**15**

Second Quarter

PHOTO	111	Studio Photography I	5
PHOTO	112	Photographic Design	5
		Art Elective	5
		Total	**15**

Third Quarter

JOURN	220	Introduction to News Writing	5
JOURN	225	Multimedia Journalism	5
PHOTO	121	Location Photography I	5
		Total	**15**

Fourth Quarter

MATH&	107	Math in Society	5
PHOTO	200	Photography Media	5
		Film Elective	5
		Total	**15**

Fifth Quarter

PHOTO	227	Business of Photography	5
PHOTO	237	Introduction to Documentary DV Production	5
		Social Science Elective	5
		Total	**15**

Sixth Quarter

GRDSN	175	After Effects	2
PHOTO	225	Portfolio Development	5
PHOTO	247	HDSLR Filmmaking	5
PHOTO	266	Cooperative Education Seminar	1
PHOTO	267	Cooperative Education Work Experience	2
		Total	**15**

90 credits are required for the Associate in Applied Science–Transfer

Art Elective

ART	105	Color and Design	5
PHOTO	120	Photographic Arts	5
PHOTO	240	Large Format Photography	5

Film Elective

FILM	141	Introduction to FILM	5
FILM	222	American Film Classics	5
FILM	224	Contemporary Global Cinema	5
FILM	225	Independent Film	5
FILM	236	The Documentary Film	5

Social Science Elective

ANTH&	100	Survey of Anthropology	5
ANTH&	206	Cultural Anthropology	5
ANTH&	210	Indians of North America	5
PSYC&	100	General Psychology	5
SOC&	101	Intro to Sociology	5

EARLY CHILDHOOD EDUCATION: SFCC

Early Childhood Education
Associate in Applied Science–Transfer

The AAS–T is an associate degree providing comprehensive core early childhood content (51–52 credits) based on the National Association for the Education of Young Children (NAEYC) and the Washington State Skill standards. The balance of the degree is made up of significant general education coursework which is necessary for transfer.

Graduation requirements for AAS–T in Early Childhood Education Development: 91–92 credits from the associate in arts degree and the associate in applied science degree:

- Communication Skills: 10 credits of English composition, or 5 credits of English composition and 5 credits of speech
- Quantitative Skills: 5 credits from quantitative reasoning courses –mathematics
- Humanities: 5 credits from group A and 5 credits from group B or C
- Social Sciences: 5 credits from group A and 5 credits from group B
- Mathematics/Science: 5 credits from a laboratory course in group B sciences
- Writing and Diversity: At least one 5–credit writing–intensive course ("W" designated course) must be included within the distribution. At least 5 credits must be chosen from the approved list of diversity courses ("D" designated course).

First Quarter

ECED&	105	Introduction to Early Childhood Education	5
ECED&	107	Health, Safety, Nutrition	5
ECED&	120	Practicum-Nurturing Relationships	2
		Total	**12**

Second Quarter

ECED&	132	Infants and Toddlers	3
EDUC&	115	Child Development	5
EDUC&	130	Guiding Behavior	3
		Communication	5
		Total	**16**

Third Quarter

ECED&	170	Learning Environments for Young Children	3
ECED&	190	Observation and Assessment	3
		Mathematics/Sciences: Group B (lab course) [2]	5
		Social Sciences: Group A [2]	5
		Total	**16**

Fourth Quarter

ECED&	180	Language and Literacy	3
EDUC&	150	Child, Family, Community	3
		Communication	5
		Humanities	5
		Total	**16**

Fifth Quarter

ECED&	160	Curriculum Development	5
ECED	282	Practicum I	5
		Quantitative/Symbolic Reasoning Course - Math [2]	5
		Total	**15**

Sixth Quarter

CMST	227	Intercultural Communication [1]	5
ECED	283	Practicum II	5
		Social Sciences: Group B [2]	5
		Total	**15**

90 credits are required for the Associate in Applied Science–Transfer

Communication

CMST&	101	Introduction to Communication	5
ENGL&	101	English Composition I	5
ENGL&	102	Composition II	5

1 CMST 227 completes 5 of the 10 credit humanities requirement.
2 See AA degree requirements for acceptable course listings.

Early Childhood Education,
Associate in Applied Science

The Early Childhood Education program provides experiences in educational theory in the areas of social, emotional, cognitive, physical/motor and creative development for children from birth through age 8. Courses also are available for caregivers of school–age children, ages 5 through 14 years. Now that ongoing research reveals the significance of early development, professional preparation has become essential to anyone pursuing a career in the education and care of young children. Courses are through eLearning and/or days and evenings.

SFCC Early Childhood Education program options:

- Early Childhood Education Certificate (60 credits) – contains the ECED core content courses.
- WA State ECED Stackable Certificates (12–47 credits) – Three "stackable" certificates meet State requirements and allow progression without course repetition for students who wish to earn higher level certificates or degrees.
- Associate in Applied Science (AAS) degree (90 credits) – contains the same course work as the ECED certificate above, plus supporting courses and electives which may be modified for transfer to four–year schools.

- Associate in Applied Science Transfer (AAS–T) degree (90 credits) –contains ECED core content with the option to transfer to accepting four–year schools.
- Associate in Arts (AA) degree (90 credits) –includes 15 credits of electives in ECED that transfers to four–year schools.
- Articulation with area high schools articulates college credits for completion of specified high school ECED courses.

First Quarter

ECED	103	College Success	3
ECED&	105	Introduction to Early Childhood Education	5
ECED&	107	Health, Safety, Nutrition	5
ECED&	120	Practicum-Nurturing Relationships	2
		Total	**15**

Second Quarter

ECED&	132	Infants and Toddlers	3
ECED	133	Practicum: Infants/Toddlers Care	2
EDUC&	115	Child Development	5
EDUC&	130	Guiding Behavior	3
		Total	**13**

Third Quarter

ECED&	170	Learning Environments for Young Children	3
ECED&	190	Observation and Assessment	3
ECED	191	Practicum: Observation and Assessment	2
HLTH	174	First Aid	3
		Math Elective	5
		Total	**16**

Fourth Quarter

ECED&	180	Language and Literacy	3
EDUC&	150	Child, Family, Community	3
EDUC&	204	Exceptional Child	5
ENGL&	101	English Composition I	5
		Total	**16**

Fifth Quarter

ECED&	160	Curriculum Development	5
ECED	282	Practicum I	5
		Program Elective	5
		Total	**15**

Sixth Quarter

ECED	283	Practicum II	5
		Human Relations/Leadership Elective	5
		Program Elective	5
		Total	**15**

90 credits are required for the Associate in Applied Science

Human Relations/Leadership Elective

CMST	227	Intercultural Communication	5
HS	136	Improving Interpersonal Communication	5

Math Elective

BUS	110	Basic Mathematics Review	1
BUS	111	Percents and Simple Interest	1
BUS	112	Payroll and Compound Interest	1
BUS	113	Discounts, Markups and Markdowns	1
BUS	114	Solving for the Unknown and Business Math Review	1
BUS	122	Practical Business Math	3
BUS	123	Practical Business Math Applications	5

Program Elective

ART&	100	Art Appreciation	5
ASL&	121	Am Sign Language I	5
CMST	121	Job Communication Skills	2-5
CMST&	220	Public Speaking	5
CMST	227	Intercultural Communication	5
DRMA&	101	Intro to Theatre	5
ECED&	100	Child Care Basics	3
ECED	118	Early Childhood Education Seminar	1-11
ECED&	134	Family Child Care	3
ECED&	139	Administration of Early Learning Programs	3
EDUC&	136	School-Age Care	3
ENGL&	102	Composition II	5
ENGL&	111	Intro to Literature	5
ENVS&	101	Intro to Env Science	5
GEOL&	100	Survey of Earth Science	5
HIST&	214	Pacific NW History	5
HIST&	219	Native American History	5
HS	105	Child Abuse	5
HUM&	101	Intro to Humanities	5
IS	120	Business Computer Use	3
LMLIB	135	Children's Literature and Library Services	5
MUSC&	105	Music Appreciation	5
PHOTO	101	Introduction to Photography	5
PSYC&	100	General Psychology	5
PSYC&	200	Lifespan Psychology	5
PSYC	250	Psychology of Adjustment	5
SOC&	101	Intro to Sociology	5
SOC	211	Marriage and the Family	5

[1] May choose any course or combination of courses for a required five credits of computation. MATH 087, 088 or 090 may be substituted with any higher level math course.

Early Childhood Education Certificate

The Early Childhood Education program provides experiences in educational theory in the areas of social, emotional, cognitive, physical/motor and creative development for children from birth through age 8. Courses also are available for caregivers of school–age children, ages 5 through 14 years. Now that ongoing research reveals the significance of early development, professional preparation has become essential to anyone pursuing a career in the education and care of young children. Courses are through eLearning and/or days and evenings.

SFCC Early Childhood Education program options:

- Early Childhood Education Certificate (60 credits) – contains the ECED core content courses.
- WA State ECED Stackable Certificates (12–47 credits) – Three "stackable" certificates meet State requirements and allow progression without course repetition for students who wish to earn higher level certificates or degrees.
- Associate in Applied Science (AAS) degree (90 credits) – contains the same course work as the ECED certificate above, plus supporting courses and electives which may be modified for transfer to four–year schools.
- Associate in Applied Science Transfer (AAS–T) degree (90 credits) –contains ECED core content with the option to transfer to accepting four–year schools.
- Associate in Arts (AA) degree (90 credits) –includes 15 credits of electives in ECED that transfers to four–year schools.
- Articulation with area high schools articulates college credits for completion of specified high school ECED courses.

First Quarter

ECED	103	College Success	3
ECED&	105	Introduction to Early Childhood Education	5
ECED&	107	Health, Safety, Nutrition	5
ECED&	120	Practicum-Nurturing Relationships	2
		Total	**15**

Second Quarter

ECED&	132	Infants and Toddlers	3
ECED	133	Practicum: Infants/Toddlers Care	2
EDUC&	115	Child Development	5
EDUC&	130	Guiding Behavior	3
HLTH	174	First Aid	3
		Total	**16**

Third Quarter

ECED&	170	Learning Environments for Young Children	3
ECED&	190	Observation and Assessment	3
ECED	191	Practicum: Observation and Assessment	2
		Math Elective	5
		Total	**13**

Fourth Quarter

ECED&	180	Language and Literacy	3
EDUC&	150	Child, Family, Community	3
ENGL&	101	English Composition I	5
		Human Relations/Leadership Elective	5
		Total	**16**

60 credits are required for the Certificate

Human Relations/Leadership Elective

CMST	227	Intercultural Communication	5
HS	136	Improving Interpersonal Communication	5

Math Elective

BUS	110	Basic Mathematics Review	1
BUS	111	Percents and Simple Interest	1
BUS	112	Payroll and Compound Interest	1
BUS	113	Discounts, Markups and Markdowns	1
BUS	114	Solving for the Unknown and Business Math Review	1
BUS	122	Practical Business Math	3
BUS	123	Practical Business Math Applications	5

[1] May choose any course or combination of courses for a required three to five credits of computation. MATH 087, 088, or 090 may be substituted with any higher level math course.

State Early Childhood Education Certificate

The Early Childhood Education program provides experiences in educational theory in the areas of social, emotional, cognitive, physical/motor and creative development for children from birth through age 8. Courses also are available for caregivers of school–age children, ages 5 through 14 years. Now that ongoing research reveals the significance of early development, professional preparation has become essential to anyone pursuing a career in the education and care of young children. Courses are through eLearning and/or days and evenings.

SFCC Early Childhood Education program options:

- Early Childhood Education Certificate (60 credits) – contains the ECED core content courses.
- WA State ECED Stackable Certificates (12–47 credits) – Three "stackable" certificates meet State requirements and allow progression without course repetition for students who wish to earn higher level certificates or degrees.
- Associate in Applied Science (AAS) degree (90 credits) – contains the same course work as the ECED certificate above, plus supporting courses and electives which may be modified for transfer to four–year schools.
- Associate in Applied Science Transfer (AAS–T) degree (90 credits) –contains ECED core content with the option to transfer to accepting four–year schools.
- Associate in Arts (AA) degree (90 credits) –includes 15 credits of electives in ECED that transfers to four–year schools.
- Articulation with area high schools articulates college credits for completion of specified high school ECED courses.

First Quarter

ECED&	105	Introduction to Early Childhood Education	5
ECED&	107	Health, Safety, Nutrition	5
ECED&	120	Practicum-Nurturing Relationships	2
		Total	**12**

Second Quarter

EDUC&	115	Child Development	5
ENGL&	101	English Composition I	5
		Math Elective	5
		Specialization Choice [1]	3
		Total	**18**

Third Quarter

ECED&	160	Curriculum Development	5
ECED&	170	Learning Environments for Young Children	3
ECED&	180	Language and Literacy	3
ECED&	190	Observation and Assessment	3
EDUC&	150	Child, Family, Community	3
		Total	**17**

47 credits are required for the Certificate

Math Elective

BUS	110	Basic Mathematics Review	1
BUS	111	Percents and Simple Interest	1
BUS	112	Payroll and Compound Interest	1
BUS	113	Discounts, Markups and Markdowns	1
BUS	114	Solving for the Unknown and Business Math Review	1
BUS	122	Practical Business Math	3
BUS	123	Practical Business Math Applications	5

Specialization Choice

ECED&	132	Infants and Toddlers	3
ECED&	134	Family Child Care	3
ECED&	139	Administration of Early Learning Programs	3
EDUC&	130	Guiding Behavior	3
EDUC&	136	School-Age Care	3

[1] Choose ONE specialization course

State Initial Early Childhood Education Certificate

The Early Childhood Education program provides experiences in educational theory in the areas of social, emotional, cognitive, physical/motor and creative development for children from birth through age 8. Courses also are available for caregivers of school–age children, ages 5 through 14 years. Now that ongoing research reveals the significance of early development, professional preparation has become essential to anyone pursuing a career in the education and care of young children. Courses are through eLearning and/or days and evenings.

SFCC Early Childhood Education program options:

- Early Childhood Education Certificate (60 credits) – contains the ECED core content courses.
- WA State ECED Stackable Certificates (12–47 credits) – Three "stackable" certificates meet State requirements and

allow progression without course repetition for students who wish to earn higher level certificates or degrees.
- Associate in Applied Science (AAS) degree (90 credits) – contains the same course work as the ECED certificate above, plus supporting courses and electives which may be modified for transfer to four–year schools.
- Associate in Applied Science Transfer (AAS–T) degree (90 credits) –contains ECED core content with the option to transfer to accepting four–year schools.
- Associate in Arts (AA) degree (90 credits) –includes 15 credits of electives in ECED that transfers to four–year schools.
- Articulation with area high schools articulates college credits for completion of specified high school ECED courses.

First Quarter

ECED&	105	Introduction to Early Childhood Education	5
ECED&	107	Health, Safety, Nutrition	5
ECED&	120	Practicum-Nurturing Relationships	2
		Total	**12**

12 credits are required for the Certificate

State Short Early Childhood Education - Administration Certificate

The Early Childhood Education program provides experiences in educational theory in the areas of social, emotional, cognitive, physical/motor and creative development for children from birth through age 8. Courses also are available for caregivers of school–age children, ages 5 through 14 years. Now that ongoing research reveals the significance of early development, professional preparation has become essential to anyone pursuing a career in the education and care of young children. Courses are through eLearning and/or days and evenings.

SFCC Early Childhood Education program options:
- Early Childhood Education Certificate (60 credits) – contains the ECED core content courses.
- WA State ECED Stackable Certificates (12–47 credits) – Three "stackable" certificates meet State requirements and allow progression without course repetition for students who wish to earn higher level certificates or degrees.
- Associate in Applied Science (AAS) degree (90 credits) – contains the same course work as the ECED certificate above, plus supporting courses and electives which may be modified for transfer to four–year schools.
- Associate in Applied Science Transfer (AAS–T) degree (90 credits) –contains ECED core content with the option to transfer to accepting four–year schools.
- Associate in Arts (AA) degree (90 credits) –includes 15 credits of electives in ECED that transfers to four–year schools.
- Articulation with area high schools articulates college credits for completion of specified high school ECED courses.

Courses

ECED&	105	Introduction to Early Childhood Education	5
ECED&	107	Health, Safety, Nutrition	5
ECED&	120	Practicum-Nurturing Relationships	2
ECED&	139	Administration of Early Learning Programs	3
EDUC&	115	Child Development	5
		Total	**20**

20 credits are required for the Certificate

State Short Early Childhood Education - Family Child Care Certificate

The Early Childhood Education program provides experiences in educational theory in the areas of social, emotional, cognitive, physical/motor and creative development for children from birth through age 8. Courses also are available for caregivers of school–age children, ages 5 through 14 years. Now that ongoing research reveals the significance of early development, professional preparation has become essential to anyone pursuing a career in the education and care of young children. Courses are through eLearning and/or days and evenings.

SFCC Early Childhood Education program options:
- Early Childhood Education Certificate (60 credits) – contains the ECED core content courses.
- WA State ECED Stackable Certificates (12–47 credits) – Three "stackable" certificates meet State requirements and allow progression without course repetition for students who wish to earn higher level certificates or degrees.
- Associate in Applied Science (AAS) degree (90 credits) – contains the same course work as the ECED certificate above, plus supporting courses and electives which may be modified for transfer to four–year schools.
- Associate in Applied Science Transfer (AAS–T) degree (90 credits) –contains ECED core content with the option to transfer to accepting four–year schools.
- Associate in Arts (AA) degree (90 credits) –includes 15 credits of electives in ECED that transfers to four–year schools.
- Articulation with area high schools articulates college credits for completion of specified high school ECED courses.

Courses

ECED&	105	Introduction to Early Childhood Education	5
ECED&	107	Health, Safety, Nutrition	5
ECED&	120	Practicum-Nurturing Relationships	2
ECED&	134	Family Child Care	3
EDUC&	115	Child Development	5
		Total	**20**

20 credits are required for the Certificate

State Short Early Childhood Education - General Certificate

The Early Childhood Education program provides experiences in educational theory in the areas of social, emotional, cognitive, physical/motor and creative development for children from birth through age 8. Courses also are available for caregivers of school–age children, ages 5 through 14 years. Now that ongoing research reveals the significance of early development, professional preparation has become essential to anyone pursuing a career in the education and care of young children. Courses are through eLearning and/or days and evenings.

SFCC Early Childhood Education program options:
- Early Childhood Education Certificate (60 credits) – contains the ECED core content courses.
- WA State ECED Stackable Certificates (12–47 credits) – Three "stackable" certificates meet State requirements and allow progression without course repetition for students who wish to earn higher level certificates or degrees.
- Associate in Applied Science (AAS) degree (90 credits) – contains the same course work as the ECED certificate above, plus supporting courses and electives which may be modified for transfer to four–year schools.
- Associate in Applied Science Transfer (AAS–T) degree (90 credits) –contains ECED core content with the option to transfer to accepting four–year schools.

- Associate in Arts (AA) degree (90 credits) –includes 15 credits of electives in ECED that transfers to four–year schools.
- Articulation with area high schools articulates college credits for completion of specified high school ECED courses.

Courses

ECED&	105	Introduction to Early Childhood Education	5
ECED&	107	Health, Safety, Nutrition	5
ECED&	120	Practicum-Nurturing Relationships	2
EDUC&	115	Child Development	5
EDUC&	130	Guiding Behavior	3
		Total	**20**

20 credits are required for the Certificate

State Short Early Childhood Education – Infant Toddler Care Certificate

The Early Childhood Education program provides experiences in educational theory in the areas of social, emotional, cognitive, physical/motor and creative development for children from birth through age 8. Courses also are available for caregivers of school–age children, ages 5 through 14 years. Now that ongoing research reveals the significance of early development, professional preparation has become essential to anyone pursuing a career in the education and care of young children. Courses are through eLearning and/or days and evenings.

SFCC Early Childhood Education program options:

- Early Childhood Education Certificate (60 credits) – contains the ECED core content courses.
- WA State ECED Stackable Certificates (12–47 credits) – Three "stackable" certificates meet State requirements and allow progression without course repetition for students who wish to earn higher level certificates or degrees.
- Associate in Applied Science (AAS) degree (90 credits) – contains the same course work as the ECED certificate above, plus supporting courses and electives which may be modified for transfer to four–year schools.
- Associate in Applied Science Transfer (AAS–T) degree (90 credits) –contains ECED core content with the option to transfer to accepting four–year schools.
- Associate in Arts (AA) degree (90 credits) –includes 15 credits of electives in ECED that transfers to four–year schools.
- Articulation with area high schools articulates college credits for completion of specified high school ECED courses.

Courses

ECED&	105	Introduction to Early Childhood Education	5
ECED&	107	Health, Safety, Nutrition	5
ECED&	120	Practicum-Nurturing Relationships	2
ECED&	132	Infants and Toddlers	3
EDUC&	115	Child Development	5
		Total	**20**

20 credits are required for the Certificate

State Short Early Childhood Education - School-Age Care Certificate

The Early Childhood Education program provides experiences in educational theory in the areas of social, emotional, cognitive, physical/motor and creative development for children from birth through age 8. Courses also are available for caregivers of school–age children, ages 5 through 14 years. Now that ongoing research reveals the significance of early development, professional preparation has become essential to anyone pursuing a career in the education and care of young children. Courses are through eLearning and/or days and evenings.

SFCC Early Childhood Education program options:

- Early Childhood Education Certificate (60 credits) – contains the ECED core content courses.
- WA State ECED Stackable Certificates (12–47 credits) – Three "stackable" certificates meet State requirements and allow progression without course repetition for students who wish to earn higher level certificates or degrees.
- Associate in Applied Science (AAS) degree (90 credits) – contains the same course work as the ECED certificate above, plus supporting courses and electives which may be modified for transfer to four–year schools.
- Associate in Applied Science Transfer (AAS–T) degree (90 credits) –contains ECED core content with the option to transfer to accepting four–year schools.
- Associate in Arts (AA) degree (90 credits) –includes 15 credits of electives in ECED that transfers to four–year schools.
- Articulation with area high schools articulates college credits for completion of specified high school ECED courses.

Courses

ECED&	105	Introduction to Early Childhood Education	5
ECED&	107	Health, Safety, Nutrition	5
ECED&	120	Practicum-Nurturing Relationships	2
EDUC&	115	Child Development	5
EDUC&	136	School-Age Care	3
		Total	**20**

20 credits are required for the Certificate

ECHOCARDIOGRAPHY: SCC

Echocardiography
Associate in Applied Science

Echocardiography is an Allied Health profession specifically concerning the diagnosis and treatment of patients with cardiac and peripheral vascular disease. The technologist performs examinations at the request or direction of a physician. Through subjective sampling and/or recording, the technologist proceeds with the examination to create an easily definable foundation of data from which a correct anatomic and physiologic diagnosis may be established for each patient.

The primary role of the cardiovascular sonographer is to obtain recordings of ultrasound images of the heart and related structures for the physician to interpret. The various types of ultrasound equipment require a highly skilled operator to obtain the imaging information or other data required. The cardiovascular sonographer must obtain appropriate clinical history, cardiac–related physical findings, and pertinent laboratory data in order to adapt the imaging techniques to obtain comprehensive and diagnostic echocardiographic information. The Cardiovascular Technology Programs (Invasive and Noninvasive) are accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Joint Review Committee for Cardiovascular Technology (www.jrccvt.org). JRC–CVT 6 Pine Knoll Dr. Beverly, MA 01915–1425 (978) 456–5594. Students within the Echocardiography program are required to complete a six month, full–time clinical internship. As clinical space is limited in Spokane and the surrounding area, the student may be required to complete their internship in an out–of–town and/or out–of–area medical center.

Admission Requirements:

- ECHO courses are limited to students of the Echocardiography program
- Active email account required
- Appropriate math score
- Self–place into English
- A 2.5 grade in each prerequisite course is required and course completion should be no older than 5 years
- Admission to the ECHO program is competitive and based on a panel interview, prerequisite course GPA, additional math, science, and healthcare related coursework, quality of reference letters, and completion of 40 hours volunteerism in healthcare and cardiovascular ultrasound
- A 2.0 (79%) is required in every program course to proceed to the next quarter
- National background check is conducted prior to admission and 4th quarter of the program
- Immunizations, current healthcare provider CPR, and 7 hour blood borne pathogen training are required prior to clinical internship in the 4th quarter
- Selective clinical sites require a ten–panel drug screen within 30 days of clinical internship
- Return to the program is based on "space available" and requires remedial work to demonstrate knowledge base appropriate with program re–entry point
- After re–entry, students may only repeat a class one time. Repeat of courses must be completed within two years

Admission Recommendations:

- Computer skills are recommended
- Some students find completion of CHEM 120 Organic and Biochemistry for Health Sciences and CHEM 121 helpful to learning in the program
- Additional healthcare related courses such as HED 109, 129 or nursing assistant coursework

After entering the Echocardiography program, students are required to maintain a minimum of a 2.0 grade in each class before proceeding to the next quarter. Students need to realize that clinical site placement could require relocation outside of the immediate Spokane area for 10 (4 weeks in August and 6 months for full time) months.

Prerequisites

BIOL&	160	General Biology w/Lab [1]	
BIOL&	241	Human A & P 1 [1]	
BIOL&	242	Human A & P 2 [1]	
CMST&	210	Interpersonal Communication [1]	
ENGL&	101	English Composition I [1]	
HED	125	Medical Terminology [1]	
MATH	108	College Algebra [1]	
PHYS	100	Introductory Physics [1]	

First Quarter

ECHO	100	Introduction to Echo and Vascular	2
ECHO	112	Vascular Fundamentals	4
ECHO	116	Acute Coronary Syndrome	1
ECHO	117	Cardiovascular Pharm 1	1
ECHO	125	Ultrasound Physics and Instrumentation I	5
ECHO	213	Electrophysiology	4
		Total	**17**

Second Quarter

ECHO	122	Vascular Procedures I	4
ECHO	126	Hemodynamics	2
ECHO	127	Technical Skills/Reading Hemodynamics	1
ECHO	128	Cardiovascular Pharm 2	1
ECHO	129	Technical Skills/Pharmacology	1
ECHO	133	Echo Fundamentals	5
ECHO	135	Ultrasound Physics and Instrumentation II	5
		Total	**19**

Third Quarter

ECHO	131	Core Concepts in Echo Vasc	2
ECHO	136	Comparative Imaging Analysis	3
ECHO	138	Cardiovascular Physiology	4
ECHO	253	Echocardiography I	6
ECHO	254	Technical Skills Echocardiography I	2
		Total	**17**

Fourth Quarter

ECHO	139	Surgical Asepsis	1
ECHO	140	Technical Skills/Surgical Asepsis	1
ECHO	141	Data Collection and Presentation	3
ECHO	142	Echo Clinical Preparation	4
ECHO	143	Echo Clinical I	6
		Total	**15**

Fifth Quarter

ECHO	251	Echocardiography Clinical II	6
ECHO	252	Cardiovascular Pathophysiology	1
ECHO	255	Research Methods and Biostatistics	3
ECHO	263	Echocardiography II	7
ECHO	264	Technical Skills Echo II	2
		Total	**19**

Sixth Quarter

ECHO	261	Echocardiography Clinical III	14
		Total	**14**

Seventh Quarter

ECHO	273	Echocardiography Clinical IV	14
		Total	**14**

115 credits are required for the Associate in Applied Science

[1] All prerequisite courses must have been completed within the last five years with a GPA of 2.5 or better.

EDUCATION PARAPROFESSIONAL - SPECIAL EDUCATION: SFCC

Education Paraprofessional - Special Education Associate in Applied Science

The Education Paraprofessional program provides theory and practice in the skills for working as effective members of instructional teams. An education paraprofessional works under the supervision of a licensed/certificated staff member to assist and support educational services. Courses within all options address the Washington State Core Competencies for Paraeducators and the Washington State Skill Standards. The core curriculum focuses on current issues and historical foundations of regular and special education, instructional strategies, behavior management, human development and interpersonal skills in the context of a diverse society. Students will need to successfully pass a Basic Skills Test in reading, writing and math before they will be able to register for Practicum I or complete the AAS degree. Supervised practicum opportunities for hands–on experiences in schools are provided throughout this course of study. The focus on Special Education includes the core curriculum courses described above yet delve deeper into providing services for children identified with disabilities such as learning disabilities, emotional and behavioral disorders, and developmental disabilities.

AAS Education Paraprofessional, **General Education**: The goal for this option is to support learners experiencing delays and/or those who are learning English as well as typical students within a general education setting.

AAS Education Paraprofessional, **Early Childhood**: Courses include the core curriculum described above and is intended to

meet the needs of persons who wish to become paraeducators in grades K–3.

AAS Education Paraprofessional, **School Library Media Technician**: Courses include the core curriculum described above and is intended to meet the needs of persons who wish to become education paraprofessionals or school library technician paraprofessionals in a K–12 library. Library science (LMLIB) classes are taught online and students are required to take an onsite work experience class.

AA and DTA/MRP Degree: If you intend to transfer to a four year college or university to complete a teacher training program leading to certification, you must follow the associate in arts degree and the direct transfer agreement/major related program. It is important to contact an adviser in the Education Department for specific information about appropriate courses.

Certificate: This option may be most appropriate for those obtaining a degree in Early Childhood Education wishing to extend their knowledge of working with children with special needs. As of January 2002, new federal guidelines require most paraprofessionals in public K–12 schools to complete a two year program.

First Quarter

EDUC&	204	Exceptional Child	5
ENGL&	101	English Composition I	5
		Math Related Instruction Requirement [1]	5
		Total	**15**

Second Quarter

EDUC&	202	Intro to Education	5
PSYC&	100	General Psychology	5
		Human Relations/Leadership Elective	5
		Total	**15**

Third Quarter

EDUC&	115	Child Development	5
HLTH	174	First Aid	3
		Human Relations/Leadership Elective	5
		Job Skills Elective	2-3
		Total	**15–16**

Fourth Quarter

EDUC	252	Social/Emotional Development	5
EDUC	280	Behavior/Classroom Management	5
		Electives [3]	5
		Total	**15**

Fifth Quarter

EDUC	275	Learning Disabilities	5
EDUC	281	Education/Special Education Practicum I [5]	5
		Electives [3]	4
		Technology Elective [4]	3
		Total	**17**

Sixth Quarter

ASL&	121	Am Sign Language I	5
EDUC	270	Introduction to Developmental Disabilities	5
EDUC	282	Education/Special Education Practicum II	5
		Total	**15**

92-93 credits are required for the Associate in Applied Science

Human Relations/Leadership Elective

CMST&	210	Interpersonal Communication	5
HS	136	Improving Interpersonal Communication	5
HSGER	115	Multi-Cultural Perspectives in Human Services	5

Job Skills Elective

BT	160	Job Preparation Techniques	3
CMST	121	Job Communication Skills	2

Math Related Instruction Requirement

BUS	123	Practical Business Math Applications	5

1 May substitute any MATH course 90 or above.

2 EDUC& 115 may be substituted with PSYC 210.

3 This elective requirement may be met by any course or combination of courses numbered 100 or higher.

4 Technology course needs to be from IS, CAPPS, GRDSN, LMLIB 126 or other Internet related course.

5 Prerequisite: Must successfully pass a Basic Skills Test. See the instructor prior to registration.

Education Paraprofessional
Certificate

The Education Paraprofessional program provides theory and practice in the skills for working as effective members of instructional teams. An education paraprofessional works under the supervision of a licensed/certificated staff member to assist and support educational services. Courses within all options address the Washington State Core Competencies for Paraeducators and the Washington State Skill Standards. The core curriculum focuses on current issues and historical foundations of regular and special education, instructional strategies, behavior management, human development and interpersonal skills in the context of a diverse society. Students will need to successfully pass a Basic Skills Test in reading, writing and math before they will be able to register for Practicum I or complete the AAS degree. Supervised practicum opportunities for hands–on experiences in schools are provided throughout this course of study. The focus on Special Education includes the core curriculum courses described above yet delve deeper into providing services for children identified with disabilities such as learning disabilities, emotional and behavioral disorders, and developmental disabilities.

AAS Education Paraprofessional, **General Education**: The goal for this option is to support learners experiencing delays and/or those who are learning English as well as typical students within a general education setting.

AAS Education Paraprofessional, **Early Childhood**: Courses include the core curriculum described above and is intended to meet the needs of persons who wish to become paraeducators in grades K–3.

AAS Education Paraprofessional, **School Library Media Technician**: Courses include the core curriculum described above and is intended to meet the needs of persons who wish to become education paraprofessionals or school library technician paraprofessionals in a K–12 library. Library science (LMLIB) classes are taught online and students are required to take an onsite work experience class.

AA and DTA/MRP Degree: If you intend to transfer to a four year college or university to complete a teacher training program leading to certification, you must follow the associate in arts degree and the direct transfer agreement/major related program. It is important to contact an adviser in the Education Department for specific information about appropriate courses.

Certificate: This option may be most appropriate for those obtaining a degree in Early Childhood Education wishing to extend their knowledge of working with children with special

needs. As of January 2002, new federal guidelines require most paraprofessionals in public K–12 schools to complete a two year program.

First Quarter

EDUC&	204	Exceptional Child	5
EDUC	252	Social/Emotional Development	5
EDUC	280	Behavior/Classroom Management	5
		Total	**15**

Second Quarter

EDUC	275	Learning Disabilities	5
		Communications Elective	5
		Human Relations/Leadership Elective	5
		Total	**15**

Third Quarter

BUS	122	Practical Business Math	3
EDUC	270	Introduction to Developmental Disabilities	5
HLTH	174	First Aid	3
		Certificate Electives	4
		Total	**15**

45 credits are required for the Certificate

Certificate Electives

ASL&	121	Am Sign Language I	5
CAPPS	102	Introduction to Office	1
CAPPS	104	Beginning Windows Operating System	1
EDUC	281	Education/Special Education Practicum I	5
EDUC	282	Education/Special Education Practicum II	5
HS	102	Introduction to Human Services	5
HS	105	Child Abuse	5
LMLIB	125	School Libraries and Media Centers	5
LMLIB	126	Library Technology and Services for Educational Support	3
LMLIB	135	Children's Literature and Library Services	5

Communications Elective

BT	107	Business Communications	5
ENGL&	101	English Composition I	5

Human Relations/Leadership Elective

CMST&	210	Interpersonal Communication	5
HS	136	Improving Interpersonal Communication	5

Education Paraprofessional - Early Childhood Education Associate in Applied Science

The Education Paraprofessional program provides theory and practice in the skills for working as effective members of instructional teams. An education paraprofessional works under the supervision of a licensed/certificated staff member to assist and support educational services. Courses within all options address the Washington State Core Competencies for Paraeducators and the Washington State Skill Standards. The core curriculum focuses on current issues and historical foundations of regular and special education, instructional strategies, behavior management, human development and interpersonal skills in the context of a diverse society. Students will need to successfully pass a Basic Skills Test in reading, writing and math before they will be able to register for Practicum I or complete the AAS degree. Supervised practicum opportunities for hands–on experiences in schools are provided throughout this course of study. The focus on Special Education includes the core curriculum courses described above yet delve deeper into providing services for children identified with disabilities such as learning disabilities, emotional and behavioral disorders, and developmental disabilities.

AAS Education Paraprofessional, **General Education**: The goal for this option is to support learners experiencing delays and/or those who are learning English as well as typical students within a general education setting.

AAS Education Paraprofessional, **Early Childhood**: Courses include the core curriculum described above and is intended to meet the needs of persons who wish to become paraeducators in grades K–3.

AAS Education Paraprofessional, **School Library Media Technician**: Courses include the core curriculum described above and is intended to meet the needs of persons who wish to become education paraprofessionals or school library technician paraprofessionals in a K–12 library. Library science (LMLIB) classes are taught online and students are required to take an onsite work experience class.

AA and DTA/MRP Degree: If you intend to transfer to a four year college or university to complete a teacher training program leading to certification, you must follow the associate in arts degree and the direct transfer agreement/major related program. It is important to contact an adviser in the Education Department for specific information about appropriate courses.

Certificate: This option may be most appropriate for those obtaining a degree in Early Childhood Education wishing to extend their knowledge of working with children with special needs. As of January 2002, new federal guidelines require most paraprofessionals in public K–12 schools to complete a two year program.

First Quarter

EDUC&	204	Exceptional Child	5
ENGL&	101	English Composition I	5
		Math Related Instruction Requirement [1]	5
		Total	**15**

Second Quarter

EDUC&	202	Intro to Education	5
PSYC&	100	General Psychology	5
		Human Relations/Leadership Elective	5
		Total	**15**

Third Quarter

EDUC&	115	Child Development [2]	5
HLTH	174	First Aid	3
		Human Relations/Leadership Elective	5
		Job Skills Elective	2-3
		Total	**15–16**

Fourth Quarter

ECED	103	College Success	3
ECED&	190	Observation and Assessment	3
EDUC	252	Social/Emotional Development	5
EDUC	280	Behavior/Classroom Management	5
		Total	**16**

Fifth Quarter

ECED&	132	Infants and Toddlers	3
ECED&	139	Administration of Early Learning Programs	3
ECED&	170	Learning Environments for Young Children	3
EDUC	281	Education/Special Education Practicum I [3]	5
		Total	**14**

Sixth Quarter

ECED&	134	Family Child Care	3
ECED&	160	Curriculum Development	5

EDUC	282	Education/Special Education Practicum II	5
		Technology Elective [4]	2
		Total	**15**

90-91 credits are required for the Associate in Applied Science

Human Relations/Leadership Elective

CMST&	210	Interpersonal Communication	5
HS	136	Improving Interpersonal Communication	5
HSGER	115	Multi-Cultural Perspectives in Human Services	5

Job Skills Elective

BT	160	Job Preparation Techniques	3
CMST	121	Job Communication Skills	2

Math Related Instruction Requirement

BUS	123	Practical Business Math Applications	5

1 May substitute any MATH course 90 or above.

2 EDUC& 115 may be substituted with PSYC 210.

3 Prerequisite: Must successfully pass a Basic Skills Test. See the instructor prior to registration.

4 Technology course needs to be from IS, CAPPS, GRDSN, LMLIB 126 or other Internet related course.

Education Paraprofessional - General Education Associate in Applied Science

The Education Paraprofessional program provides theory and practice in the skills for working as effective members of instructional teams. An education paraprofessional works under the supervision of a licensed/certificated staff member to assist and support educational services. Courses within all options address the Washington State Core Competencies for Paraeducators and the Washington State Skill Standards. The core curriculum focuses on current issues and historical foundations of regular and special education, instructional strategies, behavior management, human development and interpersonal skills in the context of a diverse society. Students will need to successfully pass a Basic Skills Test in reading, writing and math before they will be able to register for Practicum I or complete the AAS degree. Supervised practicum opportunities for hands–on experiences in schools are provided throughout this course of study. The focus on Special Education includes the core curriculum courses described above yet delve deeper into providing services for children identified with disabilities such as learning disabilities, emotional and behavioral disorders, and developmental disabilities.

AAS Education Paraprofessional, **General Education**: The goal for this option is to support learners experiencing delays and/or those who are learning English as well as typical students within a general education setting.

AAS Education Paraprofessional, **Early Childhood**: Courses include the core curriculum described above and is intended to meet the needs of persons who wish to become paraeducators in grades K–3.

AAS Education Paraprofessional, **School Library Media Technician**: Courses include the core curriculum described above and is intended to meet the needs of persons who wish to become education paraprofessionals or school library technician paraprofessionals in a K–12 library. Library science (LMLIB) classes are taught online and students are required to take an onsite work experience class.

AA and DTA/MRP Degree: If you intend to transfer to a four year college or university to complete a teacher training program leading to certification, you must follow the associate in arts degree and the direct transfer agreement/major related program. It is important to contact an adviser in the Education Department for specific information about appropriate courses.

Certificate: This option may be most appropriate for those obtaining a degree in Early Childhood Education wishing to extend their knowledge of working with children with special needs. As of January 2002, new federal guidelines require most paraprofessionals in public K–12 schools to complete a two year program.

First Quarter

EDUC&	204	Exceptional Child	5
ENGL&	101	English Composition I	5
		Math Related Instruction Requirement [1]	5
		Total	**15**

Second Quarter

EDUC&	202	Intro to Education	5
PSYC&	100	General Psychology	5
		Human Relations/Leadership Elective	5
		Total	**15**

Third Quarter

EDUC&	115	Child Development [2]	5
HLTH	174	First Aid	3
		Human Relations/Leadership Elective	5
		Job Skills Elective	2-3
		Total	**15–16**

Fourth Quarter

EDUC	252	Social/Emotional Development	5
EDUC	280	Behavior/Classroom Management	5
		Electives [3]	5
		Total	**15**

Fifth Quarter

CMST&	101	Introduction to Communication	5
EDUC	281	Education/Special Education Practicum I [4]	5
		Electives [3]	4
		Technology Elective [5]	3
		Total	**17**

Sixth Quarter

EDUC&	150	Child, Family, Community	3
EDUC	282	Education/Special Education Practicum II	5
		Electives [3]	5
		Total	**13**

90-91 credits are required for the Associate in Applied Science

Human Relations/Leadership Elective

CMST&	210	Interpersonal Communication	5
HS	136	Improving Interpersonal Communication	5
HSGER	115	Multi-Cultural Perspectives in Human Services	5

Job Skills Elective

BT	160	Job Preparation Techniques	3
CMST	121	Job Communication Skills	2

Math Related Instruction Requirement

BUS	123	Practical Business Math Applications	5

1 May substitute any MATH course 90 or above.

2 EDUC& 115 may be substituted with PSYC 210.

[3] This elective requirement may be met by any course or combination of courses numbered 100 or higher.
[4] Prerequisite: Must successfully pass a Basic Skills Test. See the instructor prior to registration.
[5] Technology course needs to be from IS, CAPPS, GRDSN, LMLIB 126 or other Internet related course.

Education Paraprofessional - School Library Media Technician
Associate in Applied Science

The Education Paraprofessional program provides theory and practice in the skills for working as effective members of instructional teams. An education paraprofessional works under the supervision of a licensed/certificated staff member to assist and support educational services. Courses within all options address the Washington State Core Competencies for Paraeducators and the Washington State Skill Standards. The core curriculum focuses on current issues and historical foundations of regular and special education, instructional strategies, behavior management, human development and interpersonal skills in the context of a diverse society. Students will need to successfully pass a Basic Skills Test in reading, writing and math before they will be able to register for Practicum I or complete the AAS degree. Supervised practicum opportunities for hands–on experiences in schools are provided throughout this course of study. The focus on Special Education includes the core curriculum courses described above yet delve deeper into providing services for children identified with disabilities such as learning disabilities, emotional and behavioral disorders, and developmental disabilities.

AAS Education Paraprofessional, **General Education**: The goal for this option is to support learners experiencing delays and/or those who are learning English as well as typical students within a general education setting.

AAS Education Paraprofessional, **Early Childhood**: Courses include the core curriculum described above and is intended to meet the needs of persons who wish to become paraeducators in grades K–3.

AAS Education Paraprofessional, **School Library Media Technician**: Courses include the core curriculum described above and is intended to meet the needs of persons who wish to become education paraprofessionals or school library technician paraprofessionals in a K–12 library. Library science (LMLIB) classes are taught online and students are required to take an onsite work experience class.

AA and DTA/MRP Degree: If you intend to transfer to a four year college or university to complete a teacher training program leading to certification, you must follow the associate in arts degree and the direct transfer agreement/major related program. It is important to contact an adviser in the Education Department for specific information about appropriate courses.

Certificate: This option may be most appropriate for those obtaining a degree in Early Childhood Education wishing to extend their knowledge of working with children with special needs. As of January 2002, new federal guidelines require most paraprofessionals in public K–12 schools to complete a two year program.

Library science (LMLIB) courses are offered once a year. Students may take LMLIB courses at any point in the cycle.

First Quarter

EDUC&	204	Exceptional Child	5
ENGL&	101	English Composition I	5
		Math Related Instruction Requirement [1]	5
		Total	**15**

Second Quarter

EDUC&	202	Intro to Education	5
PSYC&	100	General Psychology	5
		Human Relations/Leadership Elective	5
		Total	**15**

Third Quarter

BT	160	Job Preparation Techniques [5]	3
EDUC&	115	Child Development [2]	5
HLTH	174	First Aid	3
		Human Relations/Leadership Elective	5
		Total	**16**

Fourth Quarter

EDUC	252	Social/Emotional Development	5
EDUC	280	Behavior/Classroom Management	5
LMLIB	115	Introduction to Library Organizational Systems	5
		Total	**15**

Fifth Quarter

EDUC	281	Education/Special Education Practicum I [4]	5
LMLIB	125	School Libraries and Media Centers [2]	5
LMLIB	126	Library Technology and Services for Educational Support	3
LMLIB	220	Technical Services II: Cataloging [3]	5
		Total	**18**

Sixth Quarter

EDUC	282	Education/Special Education Practicum II	5
LMLIB	135	Children's Literature and Library Services	5
LMLIB	281	Library Paraprofessional Practicum	3
		Total	**13**

92 credits are required for the Associate in Applied Science

Human Relations/Leadership Elective

CMST&	210	Interpersonal Communication	5
HS	136	Improving Interpersonal Communication	5
HSGER	115	Multi-Cultural Perspectives in Human Services	5

Math Related Instruction Requirement

BUS	123	Practical Business Math Applications	5

[1] May substitute any MATH course 90 or above.
[2] PSYC 210 may be substituted for EDUC& 115.
[3] LMLIB 116 may be substituted for LMLIB 220.
[4] Prerequisite: Must successfully pass a Basic Skills Test. See the instructor prior to registration.
[5] LMLIB 224 may be substituted for BT 160.

ELECTRICAL MAINTENANCE AND AUTOMATION: SCC

Electrical Maintenance and Automation
Associate in Applied Science

Electrical maintenance and automation technicians are responsible for the maintenance, testing, repair, and/or replacement of the electrical systems and controls found in modern industrial plants and large commercial buildings.

As the electrical systems become more sophisticated, so must the skills of the electrical maintenance and automation technician. By mixing the theoretical with practical hands–on lab experiences using modern up–to–date industrial equipment and techniques, the student will be prepared for a challenging career in electrical maintenance.

Students are offered several options within the Electrical Maintenance and Automation program. They may choose to complete an AAS degree with specialized training in one of the following areas: Electrical Maintenance and Automation or Power Systems Maintenance. Electrical Trainee or Electrical Sales option certificates also are offered.

Students must maintain a 2.0 GPA in each course of the major discipline before advancing to the subsequent quarter. Students not meeting this minimum are required to repeat the deficient course before progressing.

Electrical maintenance and automation courses may be taken whenever they are offered and in any sequence as long as the student has fulfilled any prerequisites or has instructor permission. This plan allows a great deal of flexibility for retraining people in industry.

Potential students should possess a mechanical aptitude, good reading comprehension skills and the ability to pass a color blindness test.

First Quarter

APLED	113	Introduction to Computers for Technology	3
APLED	121	Applied Written Communication [1]	4
ELMT	111	Electrical Math	5
ELMT	112	Electrical Theory	5
ELMT	113	Safety and Tools	4
ELMT	114	Materials and Fasteners	4
		Total	**25**

Second Quarter

ELMT	122	DC Circuits	5
ELMT	123	AC Theory	5
ELMT	124	Motor Maintenance	4
ELMT	262	Raceways	4
		Total	**18**

Third Quarter

APLED	123	Leadership Skills for Business and Industry	3
ELMT	131	Solid State	5
ELMT	132	DC Generators and Motors	4
ELMT	135	DC Motor Controls	4
ELMT	252	Transformers and Industrial Lighting	5
		Total	**21**

Fourth Quarter

APLED	125	Employment Preparation [1]	3
ELMT	133	AC Motors and Alternators	4
ELMT	134	Introduction to AC Controls	5
ELMT	241	AC Motor Controls	5
ELMT	251	National Electric Code	4
		Total	**21**

Fifth Quarter

ELMT	242	Advanced AC Controls	5
ELMT	243	Introduction to Programmable Controllers	4
ELMT	253	National Electric Code - Article 430	4
ELMT	254	Programmable Controller Applications	5
		Total	**18**

Sixth Quarter

ELMT	244	Solid State Motor Controls [2]	4
ELMT	263	Wiring Techniques [2]	4
ELMT	265	Advanced Programmable Controllers [2]	5
ELMT	268	Programmable Controller Integration [2]	5
		Total	**18**

Seventh Quarter

	Optional Summer Courses	0-18
	Total	**0–18**

121-139 credits are required for the Associate in Applied Science

Optional Summer Courses

FLPT	271	Pneumatic Theory	5
FLPT	272	Pneumatic Math and Symbols	4
FLPT	273	Hydraulic Theory	5
FLPT	274	Applied Hydraulics	4

1 This related education requirement may be met by any course or combination of courses approved by the instructional dean.

2 This course may be substituted with cooperative education (2 credits ELMT 266 and 16 credits ELMT 267) with department permission only. The cooperative education supervisor must approve the worksite chosen. These courses must be taken in the final quarter.

Power Systems Maintenance
Associate in Applied Science

Electrical maintenance and automation technicians are responsible for the maintenance, testing, repair, and/or replacement of the electrical systems and controls found in modern industrial plants and large commercial buildings.

As the electrical systems become more sophisticated, so must the skills of the electrical maintenance and automation technician. By mixing the theoretical with practical hands–on lab experiences using modern up–to–date industrial equipment and techniques, the student will be prepared for a challenging career in electrical maintenance.

Students are offered several options within the Electrical Maintenance and Automation program. They may choose to complete an AAS degree with specialized training in one of the following areas: Electrical Maintenance and Automation or Power Systems Maintenance. Electrical Trainee or Electrical Sales option certificates also are offered.

Students must maintain a 2.0 GPA in each course of the major discipline before advancing to the subsequent quarter. Students not meeting this minimum are required to repeat the deficient course before progressing.

Electrical maintenance and automation courses may be taken whenever they are offered and in any sequence as long as the student has fulfilled any prerequisites or has instructor permission. This plan allows a great deal of flexibility for retraining people in industry.

Potential students should possess a mechanical aptitude, good reading comprehension skills and the ability to pass a color blindness test.

Only students who have received prior approval from the Bonneville Power Administration are eligible for this degree option.

First Quarter

APLED	113	Introduction to Computers for Technology	3
APLED	121	Applied Written Communication [1]	4
ELMT	111	Electrical Math	5
ELMT	112	Electrical Theory	5
ELMT	113	Safety and Tools	4
ELMT	114	Materials and Fasteners	4
		Total	**25**

Second Quarter

ELMT	122	DC Circuits	5
ELMT	123	AC Theory	5
ELMT	124	Motor Maintenance	4
ELMT	262	Raceways	4
		Total	**18**

Third Quarter

APLED	123	Leadership Skills for Business and Industry	3
ELMT	131	Solid State	5
ELMT	132	DC Generators and Motors	4
ELMT	135	DC Motor Controls	4
ELMT	252	Transformers and Industrial Lighting	5
		Total	**21**

Fourth Quarter

APLED	125	Employment Preparation [1]	3
ELMT	133	AC Motors and Alternators	4
ELMT	134	Introduction to AC Controls	5
ELMT	241	AC Motor Controls	5
ELMT	251	National Electric Code	4
		Total	**21**

Fifth Quarter

FLPT	271	Pneumatic Theory	5
FLPT	272	Pneumatic Math and Symbols	4
FLPT	273	Hydraulic Theory	5
FLPT	274	Applied Hydraulics	4
		Total	**18**

Sixth Quarter

		Cooperative Education Electives [2]	18
		Total	**18**

121 credits are required for the Associate in Applied Science

Cooperative Education Electives

ELMT	266	Cooperative Education Seminar	2
ELMT	267	Cooperative Education Work Experience	16
ELMT	288	Cooperative Education Work Experience (No Seminar)	18

1 This related education requirement may be met by any course or combination of courses approved by the instructional dean.

2 The cooperative education supervisor must approve the worksite chosen. ELMT 266 and 267 must be taken concurrently.

ELECTRICAL TRAINEE: SCC

Electrical Sales Certificate

The Electrical Trainee Certificate program has been designed to meet a large variety of student and electrical industry needs. The student will be required to take six of the Electrical Maintenance Technician (ELMT) core classes along with vocational–related courses. In addition to the core classes, the student may select the electrical sales option with the cooperative education work experience component or choose four additional courses from the ELMT list.

This selection will be made with the aid of professional/technical counselors, faculty or industry advisers to best meet the needs of the individual student. Students who complete the certificate requirements will be ready to seek employment as sales associates in the electrical industry or as electrical trainees and can continue to develop their electrical skills through on–the–job work experience. Students may enter the program whenever the courses are offered. It should be noted that some courses do have prerequisites. ELMT courses may be taken in any sequence providing the student has fulfilled any prerequisites or has instructor permission.

First Quarter

APLED	121	Applied Written Communication [1]	4
ELMT	111	Electrical Math	5
ELMT	112	Electrical Theory	5
ELMT	114	Materials and Fasteners	4
		ELMT Course Elective(s) [2]	4
		Total	**22**

Second Quarter

APLED	123	Leadership Skills for Business and Industry	3
ELMT	122	DC Circuits	5
ELMT	123	AC Theory	5
ELMT	262	Raceways	4
		ELMT Course Elective(s) [2]	4
		Total	**21**

Third Quarter

APLED	125	Employment Preparation [1]	3
		Cooperative Education Electives [3]	18
		Total	**21**

64 credits are required for the Certificate

Cooperative Education Electives [3]

ELMT	266	Cooperative Education Seminar [3]	2
ELMT	267	Cooperative Education Work Experience [3]	16
ELMT	288	Cooperative Education Work Experience (No Seminar) [3]	18

1 This related education requirement may be met by any course or combination of courses approved by the instructional dean.

2 Choose one additional ELMT course.

3 ELMT 266 and 267 must be taken concurrently.

Electrical Trainee Certificate

The Electrical Trainee Certificate program has been designed to meet a large variety of student and electrical industry needs. The student will be required to take six of the Electrical Maintenance Technician (ELMT) core classes along with vocational–related courses. In addition to the core classes, the student may select the electrical sales option with the cooperative education work experience component or choose four additional courses from the ELMT list.

This selection will be made with the aid of professional/technical counselors, faculty or industry advisers to best meet the needs of the individual student. Students who complete the certificate requirements will be ready to seek employment as sales associates in the electrical industry or as electrical trainees and can continue to develop their electrical skills through on–the–job work experience. Students may enter the program whenever the courses are offered. It should be noted that some courses do have prerequisites. ELMT courses may be taken in any sequence providing the student has fulfilled any prerequisites or has instructor permission.

First Quarter

APLED	121	Applied Written Communication [1]	4

ELMT	111	Electrical Math	5
ELMT	112	Electrical Theory	5
ELMT	114	Materials and Fasteners	4
		ELMT Course Elective(s) [2]	4
		Total	**22**

Second Quarter

ELMT	122	DC Circuits	5
ELMT	123	AC Theory	5
ELMT	262	Raceways	4
		ELMT Course Elective(s) [2]	4
		Total	**18**

Third Quarter

APLED	125	Employment Preparation [1]	3
		ELMT Course Elective(s) [3]	16-20
		Total	**19–23**

59-63 credits are required for the Certificate

1 This related education requirement may be met by any course or combination of courses approved by the instructional dean.

2 Choose one additional ELMT course.

3 Choose four additional ELMT courses.

ELECTRONICS ENGINEERING: SCC

Applications
Associate in Applied Science

From smart phones to autonomous cars, electronic technology is an integral and constantly changing part of our world. An Electronics Engineering Technician degree provides the foundation necessary to pursue a career in this exciting field.

This lab intensive program provides practical, hands–on experience with a variety of equipment used in the industry. Classes are designed to develop the skills necessary to help engineers develop new electronic products and to evaluate, test, troubleshoot, and repair existing products. Graduates find employment with a wide variety of companies including electronic equipment manufacturers, medical equipment manufacturers, service companies, and hospitals.

To qualify for an associate in applied science degree, students must successfully complete seven quarters of study. The first five quarters are common to all the electronics programs. Students then choose to specialize in Avionics, Applications, or Mechatronics.

Successful completion will be determined by meeting the following criteria:

- A student must achieve an overall grade point average of 2.0 in all the required electronics courses, student–selected advanced electronics options, and required specific related courses.
- A student must pass each of the classes during the first three quarters of the program with a minimum grade of 1.7.
- A student must pass each of the classes during the fourth through seventh quarters with a minimum grade of 2.0.

Note: upon review, the department chairperson and/or Technical Education Dean may waive any or all the previous criteria when extenuating circumstances arise.

Night classes which cover material from the first and second quarters of the program are available. Students must successfully complete ELECT 115, 116, 117, 125, 126, 127, 105, 106, 107. Upon completion of these night classes, students may enter the third quarter of the daytime program.

A Certificate of Completion in Electronics is offered after successful completion of the first four quarters of electronics study. Note, more employment opportunities are available to students who complete the seven quarter AAS degree.

First Quarter

ELECT	111	DC Circuits	9
ELECT	112	DC Circuits Lab	5
ELECT	113	DC Electronics Math	5
		Total	**19**

Second Quarter

APLED	121	Applied Written Communication [1]	4
ELECT	121	AC Circuits	9
ELECT	122	AC Circuits Lab	5
ELECT	123	AC Electronics Math	5
		Total	**23**

Third Quarter

ELECT	131	Solid State Devices	5
ELECT	132	Solid State Devices Lab	4
ELECT	133	Computer Systems	5
ELECT	134	Computer Systems Lab	4
		Total	**18**

Fourth Quarter

APLED	125	Employment Preparation [1]	3
ELECT	211	Digital Concepts	5
ELECT	212	Digital Concepts Lab	4
ELECT	215	Linear Devices	5
ELECT	216	Linear Devices Lab	4
		Total	**21**

Fifth Quarter

ELECT	221	RF Communications	5
ELECT	222	RF Communications Lab	4
ELECT	225	Internet of Things	5
ELECT	226	Internet of Things Lab	4
		Total	**18**

Sixth Quarter

ELECT	233	Microprocessors and DSP	5
ELECT	234	Microprocessors and DSP Lab	4
ELECT	235	Photonics I	5
ELECT	236	Photonics I Lab	2
		Total	**16**

Seventh Quarter

ELECT	271	Electronics Applications Seminar	5
ELECT	272	Electronics Applications Capstone Project	10
		Total	**15**

130 credits are required for the Associate in Applied Science

1 This related education requirement may be met by any course or combination of courses approved by the department chair or the technical education division dean.

Avionics

Associate in Applied Science

From smart phones to autonomous cars, electronic technology is an integral and constantly changing part of our world. An Electronics Engineering Technician degree provides the foundation necessary to pursue a career in this exciting field.

This lab intensive program provides practical, hands–on experience with a variety of equipment used in the industry. Classes are designed to develop the skills necessary to help engineers develop new electronic products and to evaluate, test,

troubleshoot, and repair existing products. Graduates find employment with a wide variety of companies including electronic equipment manufacturers, medical equipment manufacturers, service companies, and hospitals.

To qualify for an associate in applied science degree, students must successfully complete seven quarters of study. The first five quarters are common to all the electronics programs. Students then choose to specialize in Avionics, Applications, or Mechatronics.

Successful completion will be determined by meeting the following criteria:

- A student must achieve an overall grade point average of 2.0 in all the required electronics courses, student–selected advanced electronics options, and required specific related courses.
- A student must pass each of the classes during the first three quarters of the program with a minimum grade of 1.7.
- A student must pass each of the classes during the fourth through seventh quarters with a minimum grade of 2.0.

Note: upon review, the department chairperson and/or Technical Education Dean may waive any or all the previous criteria when extenuating circumstances arise.

Night classes which cover material from the first and second quarters of the program are available. Students must successfully complete ELECT 115, 116, 117, 125, 126, 127, 105, 106, 107. Upon completion of these night classes, students may enter the third quarter of the daytime program.

A Certificate of Completion in Electronics is offered after successful completion of the first four quarters of electronics study. Note, more employment opportunities are available to students who complete the seven quarter AAS degree.

First Quarter

ELECT	111	DC Circuits	9
ELECT	112	DC Circuits Lab	5
ELECT	113	DC Electronics Math	5
		Total	**19**

Second Quarter

APLED	121	Applied Written Communication [1]	4
ELECT	121	AC Circuits	9
ELECT	122	AC Circuits Lab	5
ELECT	123	AC Electronics Math	5
		Total	**23**

Third Quarter

ELECT	131	Solid State Devices	5
ELECT	132	Solid State Devices Lab	4
ELECT	133	Computer Systems	5
ELECT	134	Computer Systems Lab	4
		Total	**18**

Fourth Quarter

APLED	125	Employment Preparation [1]	3
ELECT	211	Digital Concepts	5
ELECT	212	Digital Concepts Lab	4
ELECT	215	Linear Devices	5
ELECT	216	Linear Devices Lab	4
		Total	**21**

Fifth Quarter

ELECT	221	RF Communications	5
ELECT	222	RF Communications Lab	4
ELECT	225	Internet of Things	5
ELECT	226	Internet of Things Lab	4
		Total	**18**

Sixth Quarter

ELECT	233	Microprocessors and DSP	5
ELECT	234	Microprocessors and DSP Lab	4
ELECT	235	Photonics I	5
ELECT	236	Photonics I Lab	2
		Total	**16**

Seventh Quarter

AVIO&	202	Avionics Systems for Airframe and Power Plant [2]	8
AVIO&	203	Avionics Communications [2]	2
AVIO&	204	Principles of Avionics Troubleshooting [2]	2
		Total	**12**

127 credits are required for the Associate in Applied Science

[1] This related education requirement may be met by any course or combination of courses approved by the department chair or the technical education division dean.

[2] Enrollment requires successful completion of first year Electronics Engineering Technician or Biomedical Equipment Technician courses.

Electronics Engineering Technician Certificate

From smart phones to autonomous cars, electronic technology is an integral and constantly changing part of our world. An Electronics Engineering Technician degree provides the foundation necessary to pursue a career in this exciting field.

This lab intensive program provides practical, hands–on experience with a variety of equipment used in the industry. Classes are designed to develop the skills necessary to help engineers develop new electronic products and to evaluate, test, troubleshoot, and repair existing products. Graduates find employment with a wide variety of companies including electronic equipment manufacturers, medical equipment manufacturers, service companies, and hospitals.

To qualify for an associate in applied science degree, students must successfully complete seven quarters of study. The first five quarters are common to all the electronics programs. Students then choose to specialize in Avionics, Applications, or Mechatronics.

Successful completion will be determined by meeting the following criteria:

- A student must achieve an overall grade point average of 2.0 in all the required electronics courses, student–selected advanced electronics options, and required specific related courses.
- A student must pass each of the classes during the first three quarters of the program with a minimum grade of 1.7.
- A student must pass each of the classes during the fourth through seventh quarters with a minimum grade of 2.0.

Note: upon review, the department chairperson and/or Technical Education Dean may waive any or all the previous criteria when extenuating circumstances arise.

Night classes, which cover material from the first and second quarters of the program are available. Students must successfully complete ELECT 115, 116, 117, 125, 126, 127, 105, 106, 107. Upon completion of these night classes, students may enter the third quarter of the daytime program.

A Certificate of Completion in Electronics is offered after successful completion of the first four quarters of electronics

study. Note, more employment opportunities are available to students who complete the seven quarter AAS degree.

First Quarter

ELECT	111	DC Circuits	9
ELECT	112	DC Circuits Lab	5
ELECT	113	DC Electronics Math	5
		Total	**19**

Second Quarter

APLED	121	Applied Written Communication [1]	4
ELECT	121	AC Circuits	9
ELECT	122	AC Circuits Lab	5
ELECT	123	AC Electronics Math	5
		Total	**23**

Third Quarter

ELECT	131	Solid State Devices	5
ELECT	132	Solid State Devices Lab	4
ELECT	133	Computer Systems	5
ELECT	134	Computer Systems Lab	4
		Total	**18**

Fourth Quarter

APLED	125	Employment Preparation [1]	3
ELECT	211	Digital Concepts	5
ELECT	212	Digital Concepts Lab	4
ELECT	215	Linear Devices	5
ELECT	216	Linear Devices Lab	4
		Total	**21**

81 credits are required for the Certificate

[1] This related education requirement may be met by any course or combination of courses approved by the department chair or the technical education division dean.

Mechatronics
Associate in Applied Science

From smart phones to autonomous cars, electronic technology is an integral and constantly changing part of our world. An Electronics Engineering Technician degree provides the foundation necessary to pursue a career in this exciting field.

This lab intensive program provides practical, hands–on experience with a variety of equipment used in the industry. Classes are designed to develop the skills necessary to help engineers develop new electronic products and to evaluate, test, troubleshoot, and repair existing products. Graduates find employment with a wide variety of companies including electronic equipment manufacturers, medical equipment manufacturers, service companies, and hospitals.

To qualify for an associate in applied science degree, students must successfully complete seven quarters of study. The first five quarters are common to all the electronics programs. Students then choose to specialize in Avionics, Applications, or Mechatronics.

Successful completion will be determined by meeting the following criteria:

- A student must achieve an overall grade point average of 2.0 in all the required electronics courses, student–selected advanced electronics options, and required specific related courses.
- A student must pass each of the classes during the first three quarters of the program with a minimum grade of 1.7.
- A student must pass each of the classes during the fourth through seventh quarters with a minimum grade of 2.0.

Note: upon review, the department chairperson and/or Technical Education Dean may waive any or all the previous criteria when extenuating circumstances arise.

Night classes, which cover material from the first and second quarters of the program are available. Students must successfully complete ELECT 115, 116, 117, 125, 126, 127, 105, 106, 107. Upon completion of these night classes, students may enter the third quarter of the daytime program.

A Certificate of Completion in Electronics is offered after successful completion of the first four quarters of electronics study. Note, more employment opportunities are available to students who complete the seven quarter AAS degree.

First Quarter

ELECT	111	DC Circuits	9
ELECT	112	DC Circuits Lab	5
ELECT	113	DC Electronics Math	5
		Total	**19**

Second Quarter

APLED	121	Applied Written Communication [1]	4
ELECT	121	AC Circuits	9
ELECT	122	AC Circuits Lab	5
ELECT	123	AC Electronics Math	5
		Total	**23**

Third Quarter

ELECT	131	Solid State Devices	5
ELECT	132	Solid State Devices Lab	4
ELECT	133	Computer Systems	5
ELECT	134	Computer Systems Lab	4
		Total	**18**

Fourth Quarter

APLED	125	Employment Preparation [1]	3
ELECT	211	Digital Concepts	5
ELECT	212	Digital Concepts Lab	4
ELECT	215	Linear Devices	5
ELECT	216	Linear Devices Lab	4
		Total	**21**

Fifth Quarter

ELECT	221	RF Communications	5
ELECT	222	RF Communications Lab	4
ELECT	225	Internet of Things	5
ELECT	226	Internet of Things Lab	4
		Total	**18**

Sixth Quarter

ELECT	233	Microprocessors and DSP	5
ELECT	234	Microprocessors and DSP Lab	4
ELMT	132	DC Generators and Motors	4
ELMT	243	Introduction to Programmable Controllers	4
		Total	**17**

Seventh Quarter

FLPT	271	Pneumatic Theory [2]	5
FLPT	272	Pneumatic Math and Symbols [2]	4
FLPT	273	Hydraulic Theory [2]	5
FLPT	274	Applied Hydraulics [2]	4
		Total	**18**

134 credits are required for the Associate in Applied Science

[1] This related education requirement may be met by any course or combination of courses approved by the department chair or the technical education division dean.

[2] Seventh quarter must be taken during the summer.

EMERGENCY MEDICAL TECHNICIAN/PARAMEDIC (EMT): SCC

Paramedic
Associate in Applied Science

This program is for individuals that want to further their career in emergency medical services at the Paramedic level. Paramedics practice in the pre–hospital setting under somewhat autonomous conditions. They are governed by both standards of good clinical practice and standard written orders with the ever–present option for direct orders by qualified emergency physicians. As such, paramedics are expected to be excellent clinicians making decisions in a variety of patient presentations often based on a limited amount of information. Paramedics provide advanced clinical assessments and advanced interventions in trauma, cardiology, pulmonology, general medicine, pharmacology, general medicine, pharmacology, and other austere conditions.

The paramedic program at Spokane Community College meets or exceeds all standards for paramedic instruction set by the National Highway Transportation Safety Administration (NHTSA) and the Washington State Department of Health.

The paramedic program at Spokane College has maintained accreditation by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) through the Committee on Accreditation of Educational Programs for EMS Professionals (CoAEMSP) for the past 10 years. The program is currently on probationary status to review updates and changes to the program and anticipates returning to full status during subsequent review.

Following completion of the paramedic program students are eligible to sit for certification exams through the National Registry of Emergency Medical Technicians (NREMT) as well as state certifying authorities.

A 2.0 grade or better must be maintained in all classes.

Admission Requirements:

- Be 18 years of age prior to beginning the program
- Have earned a High School Diploma or GED
- Current American Heart Association CPR for HCP or equivalent
- Current EMT–Basic or EMT–Intermediate certification (a valid certificate must be presented prior to admission EMS 128 and EMS 129 satisfy this requirement)
- One year experience at the EMT Basic or EMT–Intermediate level (a letter of recommendation attesting to experience must be submitted prior to admission)
- Appropriate math score
- Self–place into English
- Satisfy all prerequisite courses with a GPA of 2.0 or better

Courses

BIOL&	160	General Biology w/Lab [1]	5
BIOL&	241	Human A & P 1 [1]	5
BIOL&	242	Human A & P 2 [1]	5
CHEM&	110	Chemical Concepts w/Lab [2]	5
CMST&	210	Interpersonal Communication [2]	5
ENGL&	101	English Composition I [1]	5
MATH&	107	Math in Society [2]	5
PSYC&	100	General Psychology [2]	5
		Total	**40**

First Quarter

EMS	200	Introduction to Paramedicine	3
EMS	202	Medical Communication and Documentation	3
EMS	206	General Pharmacology	3
EMS	208	Patient Assessment	3
EMS	240	Paramedic Skills Lab I	2
PHARM	115	Mathematics for Pharmacy Technicians	3
		Total	**17**

Second Quarter

EMS	210	General Medicine I	3
EMS	212	General Cardiology	3
EMS	214	General Traumatology	3
EMS	242	Paramedic Skills Lab II	2
EMS	250	Paramedic Clinical I	4
		Total	**15**

Third Quarter

EMS	220	General Medicine II	3
EMS	222	Life Span Medicine	3
EMS	224	Paramedic Operations	3
EMS	244	Paramedic Skills Lab III	2
EMS	252	Paramedic Clinical II	4
		Total	**15**

Fourth Quarter

EMS	230	Special Topics in Paramedicine	3
EMS	260	Paramedic Internship I	5
EMS	262	Paramedic Internship II	5
		Total	**13**

100 credits are required for the Associate in Applied Science

[1] These courses are prerequisites and must be completed with a 2.0 grade or better prior to application for admission into the program. These courses are included in the total credits required for the certificate and degree.
[2] These courses must be completed with a 2.0 grade or better within a five–year period before or after the four quarter curriculum for graduation. Prerequisites for MATH& 107 are MATH 097,098 or 099 with a 2.0 or better within the last three years or appropriate placement score.

Paramedic
Certificate

This program is for individuals that want to further their career in emergency medical services at the Paramedic level. Paramedics practice in the pre–hospital setting under somewhat autonomous conditions. They are governed by both standards of good clinical practice and standard written orders with the ever–present option for direct orders by qualified emergency physicians. As such, paramedics are expected to be excellent clinicians making decisions in a variety of patient presentations often based on a limited amount of information. Paramedics provide advanced clinical assessments and advanced interventions in trauma, cardiology, pulmonology, general medicine, pharmacology, general medicine, pharmacology, and other austere conditions.

The paramedic program at Spokane Community College meets or exceeds all standards for paramedic instruction set by the National Highway Transportation Safety Administration (NHTSA) and the Washington State Department of Health.

The paramedic program at Spokane College has maintained accreditation by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) through the Committee on Accreditation of Educational Programs for EMS Professionals (CoAEMSP) for the past 10 years. The program is currently on

probationary status to review updates and changes to the program and anticipates returning to full status during subsequent review.

Following completion of the paramedic program students are eligible to sit for certification exams through the National Registry of Emergency Medical Technicians (NREMT) as well as state certifying authorities.

A 2.0 grade or better must be maintained in all classes.

Admission Requirements:

- Be 18 years of age prior to beginning the program
- Have earned a High School Diploma or GED
- Current American Heart Association CPR for HCP or equivalent
- Current EMT–Basic or EMT–Intermediate certification (a valid certificate must be presented prior to admission EMS 128 and EMS 129 satisfy this requirement)
- One year experience at the EMT Basic or EMT–Intermediate level (a letter of recommendation attesting to experience must be submitted prior to admission)
- Appropriate math score
- Self–place into English
- Satisfy all prerequisite courses with a GPA of 2.0 or better

Courses

BIOL&	160	General Biology w/Lab [1]	5
BIOL&	241	Human A & P 1 [1]	5
BIOL&	242	Human A & P 2 [1]	5
		Total	**15**

First Quarter

EMS	200	Introduction to Paramedicine	3
EMS	202	Medical Communication and Documentation	3
EMS	206	General Pharmacology	3
EMS	208	Patient Assessment	3
EMS	240	Paramedic Skills Lab I	2
PHARM	115	Mathematics for Pharmacy Technicians	3
		Total	**17**

Second Quarter

EMS	210	General Medicine I	3
EMS	212	General Cardiology	3
EMS	214	General Traumatology	3
EMS	242	Paramedic Skills Lab II	2
EMS	250	Paramedic Clinical I	4
ENGL	189	Writing for Vocational Students [2]	3
		Total	**18**

Third Quarter

CMST	127	Leadership Development	3
EMS	220	General Medicine II	3
EMS	222	Life Span Medicine	3
EMS	224	Paramedic Operations	3
EMS	244	Paramedic Skills Lab III	2
EMS	252	Paramedic Clinical II	4
		Total	**18**

Fourth Quarter

EMS	230	Special Topics in Paramedicine	3
EMS	260	Paramedic Internship I	5
EMS	262	Paramedic Internship II	5
		Total	**13**

81 credits are required for the Certificate

[1] These courses are prerequisites and must be completed with a 2.0 grade or better prior to application for admission into the program. These courses are included in the total credits required for the certificate and degree.

[2] ENGL 189 may be substituted with ENGL& 101.

ENTREPRENEURSHIP: SCC

Entrepreneurship Certificate

The Entrepreneurship Certificate offers a hands–on approach to training our future business leaders and entrepreneurs. Students from all areas of study will participate in a two quarter business experience where they will create a business from the ground up. College instructors and local business and community leaders guide students through the process of starting and launching a business. Students will master academic material by producing deliverables in an authentic business environment created on the SCC campus.

Students entering the program need a minimum cumulative GPA of 2.0 or permission of the department chair. Students may not currently be on academic probation. An application to the program needs to be completed followed by an interview by the Entrepreneurship instructors. Completion of a small business planning class is highly recommended before entering the program.

First Quarter

MMGT	205	Small Business Planning	5
		Business Electives	10
		Total	**15**

Second Quarter

BUS	206	Entrepreneurship and Business Plan Writing [1]	10
MMGT	250	Professional Sales	5
		Total	**15**

30 credits are required for the Certificate

Business Electives

ACCT	141	QuickBooks	1-5
ACCT	151	College Accounting I	5
ACCT	152	College Accounting II	5
ACCT&	201	Prin of Accounting I	5
BUS	100	Money Management	3
BUS&	101	Intro to Business	5
BUS	103	Basic Business Math and Electronic Calculators	5
BUS	104	Business Mathematics [2]	5
BUS	120	International Business	5
BUS	140	International Marketing	3
BUS&	201	Business Law	5
BUS	204	Introduction to Law	5
BUS	217	Business Statistics [4]	5
BUS	280	Human Relations in Business	5
CATT	241	Microsoft Project	2.5
CATT	242	Advanced Microsoft Project	2.5
CMST&	210	Interpersonal Communication	5
CMST	227	Intercultural Communication	5
CMST	287	Business and Professional Communication	3-5
ECON	100	Fundamentals of Economics [3]	5
MMGT	100	Supervised Volunteer Experience	1-3
MMGT	101	Principles of Management	5
MMGT	125	Social Media Marketing	5
MMGT	181	Leadership Training-DEC	1-5
MMGT	182	Leadership Training-DEC	1-5
MMGT	183	Leadership Training-DEC	1-5

MMGT	191	Leadership Training-DEC	1-5
MMGT	192	Leadership Training-DEC	1-5
MMGT	193	Leadership Training-DEC	1-5
MMGT	211	Marketing	5
MMGT	212	Retailing	5
MMGT	218	Fundamentals of Advertising	5
MMGT	223	Customer Service	3
MMGT	231	Human Resource Management	5
MMGT	243	Fundamentals of Project Management	5
MMGT	288	Cooperative Education Work Experience (No Seminar)	1-18

1 Completion of MMGT 205 with a 2.0 or higher or permission of instructor.
2 BUS 103 or proficiency test required.
3 ECON 100 may be substituted with a higher level ECON course.
4 MATH 97 or 99 with a 2.0 or better or appropriate placement scores.

ESTHETICIAN: SCC

Esthetician
Certificate

Students enrolling in the Esthetician Certificate program will receive training in all phases of skin care. Emphasis will be on the use of facial machines; temporary hair removal; various types of facial treatments; face, neck, and hand massage techniques; and all safety and sanitation measures involved with these processes. Upon successful completion of the coursework, the student will be prepared to take the Washington State Examination in Esthetics.

Program Requirements:
- Students must maintain a 2.1 in all professional classes to complete the program and pass exit exams with a minimum score of 2.1 to be prepared to take the Washington State licensing examination of esthetics.
- Upon successful completion of the coursework, the student will be prepared to take the Washington State Examination in Esthetics.

Physical Requirements:
- Normal or corrected vision
- Physical dexterity, i.e., small object manipulation
- Must be able to work with arms at shoulder level for extended periods of time
- Must be able to sit or stand for extended periods of time

First Quarter

COS	123	Esthetics Concepts I	4
COS	124	Esthetics Applications I	10
COS	127	Advanced Esthetics Concepts	1
EMS	120	Basic First Aid in the Workplace	2
		Total	**17**

Second Quarter

COS	125	Esthetics Concepts II	4
COS	126	Esthetics Applications II [1]	10
COS	227	Advanced Esthetics Applications	2
		Total	**16**

Third Quarter

COS	135	Esthetics Concepts III	4
COS	136	Esthetics Applications III	5
		Total	**9**

42 credits are required for the Certificate

1 COS 126 may be substituted with COS 288, with permission of instructor. Washington State Licensure requirements allow up to 10% of the student academic instruction to be met at an off campus–site.

FINE ARTS: SFCC

Art
Certificate in Fine Arts 2D Track

The Certificate in Fine Arts (CFA) affirms completion of work and is suitable for art professionals, but is not a transfer certificate. However, the courses are above 100 and are listed in many catalogs for four–year colleges and universities. Most courses will transfer. The program can be completed in two years. To develop a better assimilation of concepts and skills, a longer time span may be suggested for some students.

Each CFA student is assigned an art adviser who helps plan his or her program. Students must submit a portfolio and participate in an exhibition during their final quarter. A candidate for a Certificate in Fine Arts must complete a minimum of 96 quarter hours with a grade point average of 2.0 or better. The art adviser and art faculty will work with and evaluate the work of the student before final approval and recommendation to award the Certificate in Fine Arts.

The faculty recommends that you take one additional studio class during the first quarter to build a stronger portfolio. Not all art classes are offered every quarter. Please contact the art department for course offerings.

First Quarter

ART&	100	Art Appreciation [1]	5
ART	101	Fundamentals of Drawing	4
ART	105	Color and Design	5
ART	122	Health and Safety in Art	1
		Additional Studio Class Recommended [2]	0-5
		Total	**15–20**

Second Quarter

ART	102	Drawing Composition [3]	4
ART	106	3-D Design	4
		Communication Elective	5
		Repeatable Painting Course	4
		Total	**17**

Third Quarter

ART	110	Modern Art [4]	5
ART	161	Portfolio I [5]	1
ART	202	Figure Drawing	3
		Art Elective [6]	4
		Repeatable Required Course - List 1	4
		Total	**17**

Fourth Quarter

ART	147	Advanced Design	3
ART	201	Experimental Drawing [7]	3
		Printmaking Elective	4
		Repeatable Painting Course	4
		Repeatable Required Course - List 1	4
		Total	**18**

Fifth Quarter

ART	191	Screen Printing	4
		Art Elective [6]	5
		Computation Elective [8]	3-5
		Repeatable Painting Course	4
		Total	**16–18**

Sixth Quarter

ART	202	Figure Drawing	3
ART	261	Exhibit [5]	1
		Art Elective [6]	6
		Human Relations Elective	3-5
		Total	**13–15**

96-105 credits are required for the Certificate in Fine Arts 2D Track

Computation Elective

BUS	104	Business Mathematics [8]	5
BUS	111	Percents and Simple Interest [8]	1
BUS	112	Payroll and Compound Interest [8]	1
BUS	113	Discounts, Markups and Markdowns [8]	1
BUS	114	Solving for the Unknown and Business Math Review [8]	1
BUS	123	Practical Business Math Applications [8]	5

Human Relations Elective

BUS	105	Principles of Leadership	3
HS	136	Improving Interpersonal Communication	5

Printmaking Elective

ART	189	Printmaking	4
ART	190	Printmaking Relief	4
ART	192	Printmaking, Intaglio	4

Repeatable Ceramics Course

ART	205	Ceramics	4
ART	206	Advanced Ceramics	4

Repeatable Painting Course

ART	180	Watercolor	4
ART	186	Oil Painting	4
ART	188	Acrylic Painting	4

Repeatable Required Course – List 1

ART	130	Sculpture	4
ART	205	Ceramics	4

Repeatable Required Course – List 2

ART	127	Visual Arts Special Workshops	1-15
ART	194	Jewelry	3

Repeatable Required Course – List 3

ART	127	Visual Arts Special Workshops	1-15
ART	147	Advanced Design	3
ART	194	Jewelry	3

1 ART& 100 may be substituted with ART 108 or 112.

2 The faculty recommend that you take one (1) additional studio class during this quarter to build a stronger portfolio.

3 ART 102 may be substituted with ART 103.

4 ART 110 should be taken in the first year of the two–year program and is offered spring quarter only. Student cannot complete ART 161 without completing ART 110.

5 ART 161 and 261 are required classes. ART 161 is taught fall and spring quarters only and must be taken prior to ART 261, which is taught spring quarter only.

6 Any art course will serve as an art elective. Some classes may be repeatable courses. See college catalog for listing of courses and repeatable courses.

7 ART 201 may be substituted with ART 202.

8 May be substituted with any MATH course 100 level or above.

Art
Certificate in Fine Arts 3D Track

The Certificate in Fine Arts (CFA) affirms completion of work and is suitable for art professionals, but is not a transfer certificate. However, the courses are above 100 and are listed in many catalogs for four–year colleges and universities. Most courses will transfer. The program can be completed in two years. To develop a better assimilation of concepts and skills, a longer time span may be suggested for some students.

Each CFA student is assigned an art adviser who helps plan his or her program. Students must submit a portfolio and participate in an exhibition during their final quarter. A candidate for a Certificate in Fine Arts must complete a minimum of 96 quarter hours with a grade point average of 2.0 or better. The art adviser and art faculty will work with and evaluate the work of the student before final approval and recommendation to award the Certificate in Fine Arts.

The faculty recommends that you take one additional studio class during the first quarter to build a stronger portfolio. Not all art classes are offered every quarter. Please contact the art department for course offerings.

First Quarter

ART&	100	Art Appreciation [1]	5
ART	101	Fundamentals of Drawing	4
ART	105	Color and Design	5
ART	122	Health and Safety in Art	1
		Additional Studio Class Recommended [2]	0-5
		Total	**15–20**

Second Quarter

ART	102	Drawing Composition [3]	4
ART	106	3-D Design	4
		Communication Elective	5
		Repeatable Painting Course	4
		Total	**17**

Third Quarter

ART	110	Modern Art [4]	5
ART	161	Portfolio I [5]	1
ART	202	Figure Drawing	3
		Art Elective [6]	4
		Repeatable Required Course - List 1 [6]	4
		Total	**17**

Fourth Quarter

ART	130	Sculpture	4
ART	147	Advanced Design	3
ART	202	Figure Drawing	3
		Repeatable Ceramics Course	4
		Repeatable Required Course - List 2	3
		Total	**17**

Fifth Quarter

ART	130	Sculpture	4
		Art Elective [6]	2
		Computation Elective [8]	3-5
		Repeatable Ceramics Course	4
		Repeatable Required Course - List 3	3
		Total	**16–18**

Sixth Quarter

ART	261	Exhibit [5]	1
		Art Elective [6]	10
		Human Relations Elective	3-5
		Total	**14–16**

96-105 credits are required for the Certificate in Fine Arts 3D Track

Computation Elective

BUS	104	Business Mathematics [8]	5
BUS	111	Percents and Simple Interest [8]	1
BUS	112	Payroll and Compound Interest [8]	1
BUS	113	Discounts, Markups and Markdowns [8]	1
BUS	114	Solving for the Unknown and Business Math Review [8]	1
BUS	123	Practical Business Math Applications [8]	5

Human Relations Elective

BUS	105	Principles of Leadership	3
HS	136	Improving Interpersonal Communication	5

Printmaking Elective

ART	189	Printmaking	4
ART	190	Printmaking Relief	4
ART	192	Printmaking, Intaglio	4

Repeatable Ceramics Course

ART	205	Ceramics	4
ART	206	Advanced Ceramics	4

Repeatable Painting Course

ART	180	Watercolor	4
ART	186	Oil Painting	4
ART	188	Acrylic Painting	4

Repeatable Required Course – List 1

ART	130	Sculpture	4
ART	205	Ceramics	4

Repeatable Required Course – List 2

ART	127	Visual Arts Special Workshops	1-15
ART	194	Jewelry	3

Repeatable Required Course – List 3

ART	127	Visual Arts Special Workshops	1-15
ART	147	Advanced Design	3
ART	194	Jewelry	3

1 ART& 100 may be substituted with ART 108 or 112.

2 The faculty recommend that you take one (1) additional studio class during this quarter to build a stronger portfolio.

3 ART 102 may be substituted with ART 103.

4 ART 110 should be taken in the first year of the two–year program and is offered spring quarter only. Student cannot complete ART 161 without completing ART 110.

5 ART 161 and 261 are required classes. ART 161 is taught fall and spring quarters only and must be taken prior to ART 261, which is taught spring quarter only.

6 Any art course will serve as an art elective. Some classes may be repeatable courses. See college catalog for listing of courses and repeatable courses.

7 ART 201 may be substituted with ART 202.

8 May be substituted with any MATH course 100 level or above.

Art
Associate in Fine Arts

The Associate in Fine Arts (AFA) program offers a solid foundation of art courses and some general undergraduate requirements for the student intending to pursue a liberal arts degree or a Fine Arts degree (BFA) at a four–year institution or for the student who will transfer to a professional art school. The AFA prepares students to transfer to a four–year institution with a minimum of 90 credits, which include many general university requirements. Art schools and university art departments may require that portfolios be submitted for admission into art programs. The AFA provides the student an opportunity to prepare a portfolio of original work. In addition, the AFA provides the student an opportunity to develop his/her skills and explore various avenues of creative image making.

Faculty coaching of studio and academic work is essential for this degree. At least 30 credits in art must be earned at Spokane Falls Community College, including the final quarter of the program. A cumulative grade point of 2.0 or better must be maintained. Students should meet with their art adviser to review the catalog and/or transfer manual of the school to which they plan to transfer before selecting courses.

Contact the SFCC Art Department for articulated AFA agreements with Washington State University and The Evergreen State College.

First Quarter

ART&	100	Art Appreciation [1]	5
ART	101	Fundamentals of Drawing	4
ART	105	Color and Design	5
ART	122	Health and Safety in Art	1
		Total	**15**

Second Quarter

ART	106	3-D Design	4
ENGL&	101	English Composition I	5
MATH&	107	Math in Society	5
		List A	3-4
		Total	**17–18**

Third Quarter

ART	110	Modern Art	5
ART	160	Matting and Framing	1
ART	161	Portfolio I	1
		List B	4
		List C	3-4
		Total	**14–15**

Fourth Quarter

ART	202	Figure Drawing	3
CMST&	101	Introduction to Communication [3]	5
		Social Science Elective	5
		Total	**13**

Fifth Quarter

ART	112	Non-Western Art [2]	5
ART	130	Sculpture	4
		Non-Art Humanities Elective	5
		Studio Art Elective [4]	3-4
		Total	**17–18**

Sixth Quarter

ART	186	Oil Painting	4
ART	260	Gallery Procedures	1
ART	261	Exhibit	1
		Lab Science Elective	5
		Studio Art Elective [4]	3-4
		Total	**14–15**

90-94 credits are required for the Associate in Fine Arts

List A

ART	102	Drawing Composition	4
ART	103	Drawing Techniques	4
ART	201	Experimental Drawing	3

List B

ART	180	Watercolor	4
ART	186	Oil Painting	4
ART	188	Acrylic Painting	4

List C

ART	194	Jewelry	3
ART	205	Ceramics	4

List D

ART	189	Printmaking	4
ART	190	Printmaking Relief	4
ART	191	Screen Printing	4
ART	192	Printmaking, Intaglio	4

1 ART& 100 may be substituted with ART 108 or 112.

2 ART 112 may be substituted with ART& 100 or ART 109.

3 CMST& 101 may be substituted with ENGL& 102

4 Any art course will serve as an art elective. Some classes can be repeatable courses. See college catalog for listing of courses and repeatable courses.

FIRE SCIENCE: SCC

Fire Officer
Associate in Applied Science

The Fire Officer program is designed to enhance the technical and general education of the volunteer and career firefighter. The program builds on the basic fire service information which allows the firefighter to gain the knowledge and understanding of information required for work at the officer level within the fire service. Students are given a good educational foundation which is coupled with a broad spectrum of technical information that will help them perform the duties of a fire officer within their jurisdiction. The degree is targeted to current firefighters or fire officers.

Courses

Electives [1]	6-7
First Year	50
Second Year	27
Work Based Learning Courses	14
Total	**97–98**

97-98 credits are required for the Associate in Applied Science

Electives

FOD	205	Fire Investigation	3
FOD	206	Fire Inspection and Codes	4

First Year

CHEM&	110	Chemical Concepts w/Lab	5
CIS	110	Introduction to Computer Applications	5
CMST&	101	Introduction to Communication	5
CMST	227	Intercultural Communication	5
ENGL&	101	English Composition I	5
ENGL&	102	Composition II	5
MATH	201	Introduction to Finite Mathematics	5
PHYS	100	Introductory Physics	5
PSYC&	100	General Psychology	5
SOC&	101	Intro to Sociology	5

Second Year

FOD	101	Fire Officer IA	4
FOD	103	Fire Officer IB	3
FOD	110	Fire Service Leadership	3
FOD	131	Fire Service Instructor I	3
FOD	133	Fire Service Instructor II	3
FOD	140	Fire Service Incident Safety Officer	2
FOD	201	Fire Officer IIA	3
FOD	203	Fire Officer IIB	3
FOD	210	Incident Management-Multi-Company Operations	3

Work Based Learning Courses

FOD	102	Fire Officer IA Work Based Learning	2
FOD	104	Fire Officer IB Work Based Learning	3
FOD	132	Fire Service Instructor II Work Based Learning	3
FOD	202	Fire Officer IIA Work Based Learning	3
FOD	204	Fire Officer IIB Work Based Learning	3

1 May be substituted with any course or combination of courses approved by the department chair.

Fire Officer
Certificate

The Fire Officer program is designed to enhance the technical and general education of the volunteer and career firefighter. The program builds on the basic fire service information which allows the firefighter to gain the knowledge and understanding of information required for work at the officer level within the fire service. Students are given a good educational foundation which is coupled with a broad spectrum of technical information that will help them perform the duties of a fire officer within their jurisdiction. The degree is targeted to current firefighters or fire officers.

First Quarter

FOD	101	Fire Officer IA	4
FOD	102	Fire Officer IA Work Based Learning	2
FOD	110	Fire Service Leadership	3
		Total	**9**

Second Quarter

FOD	131	Fire Service Instructor I	3
FOD	206	Fire Inspection and Codes	4
		Total	**7**

16 credits are required for the Certificate

Fire Science Technology
Associate in Applied Science

The Fire Science Technology program is designed to prepare students for entry–level careers as firefighters for municipal, industrial, state and federal fire departments. The primary mission of the Fire Science Technology program is identification and mitigation of emergencies in order to preserve life and property.

A 2.0 grade or better must be maintained in all courses required for a degree.

Graduation Requirements:

- Emergency Medical Technician–Basic. EMT is a condition of graduation and must be obtained by the seventh quarter. This can be accomplished by taking EMS 128 and EMS 129 or by providing proof of completion from an outside agency. **EMT completion must be submitted with petition to graduate.**

First Quarter

ENGL&	101	English Composition I	5
FS	100	Orientation to Fire Science [1]	2
PE	188	Basic Fitness I	2
		Math Elective	5

		Recommended Liberal Arts Electives [3]	5
		Total	**19**

Second Quarter

CHEM&	110	Chemical Concepts w/Lab	5
CMST&	220	Public Speaking	5
FS	152	Building Construction [4]	3
		PE Elective [2]	1
		Total	**14**

Third Quarter

CMST&	210	Interpersonal Communication	5
ENGL&	102	Composition II	5
FS	177	Wildland Fire Operations	3
		PE Elective [2]	1
		Recommended Liberal Arts Electives [3]	5
		Total	**19**

Fourth Quarter

FS	105	Principles of Hydraulics	4
FS	211	Introduction to Fire Science	4
FS	212	Fire Science Applications I	6
		PE Elective [2]	1
		Total	**15**

Fifth Quarter

FS	170	Hazardous Materials I	3
FS	221	Intermediate Fire Science	4
FS	222	Fire Science Applications II	6
FS	233	Professional Development	2
		PE Elective [2]	1
		Total	**16**

Sixth Quarter

FS	160	Fire Tactics	3
FS	231	Advanced Fire Science	4
FS	232	Fire Science Applications III	6
		PE Elective [2]	1
		Total	**14**

Seventh Quarter

		EMT Requirement [7]	0-13.1
		Total	**0–13.1**

97-110.1 credits are required for the Associate in Applied Science

EMT Requirement

EMS	128	Emergency Medical Technician Lecture	10
EMS	129	Emergency Medical Technician	3.1

Math Elective

BUS	103	Basic Business Math and Electronic Calculators	5
MATH&	107	Math in Society	5
MATH	201	Introduction to Finite Mathematics	5

PE Elective

PE	139	Weight Training	1
PE	186	Fast Fitness, Beginning	1
PE	187	Cross Training	2
PE	239	Weight Training	1
PE	286	Fast Fitness, Advanced	1
PE	287	Cross Training	2
PE	288	Basic Fitness II	2

1 First year fire science students only. This course is offered fall quarter only.

2 The same physical education course may be repeated up to five times.

3 Any course acceptable for an AA degree, except physical education and aquatics courses. Any business, business technology, computer information systems, management or marketing courses numbered 100 or higher.

4 This course is offered winter quarter only.

5 MATH& 107 has a prerequisite of MATH 097 or MATH 099 with a 2.0 or better within the last three years or appropriate placement score.

6 MATH 201 has a prerequisite of MATH 097 or MATH 099 with a 2.0 or better within the last three years or appropriate placement score. College level reading scores recommended.

7 This requirement may be satisfied with proof of EMT certification and approval from the Fire Science program lead.

FRONT OFFICE PROFESSIONAL: SCC

Front Office Professional
Certificate

The Front Office Professional program is a three–quarter program preparing students for entry–level positions. Students completing this program are prepared to greet callers, make and receive telephone calls in a professional way, format correspondence and reports, and perform a variety of duties depending on the office situations.

In order to earn a Front Office Professional certificate, a student must maintain a 2.0 GPA in all individual courses.

First Quarter

BT	105	Basic Grammar for Business II	5
BT	106	Computing Essentials	5
BT	152	College and Career Strategies	3
CATT	102	Introduction to Outlook	2.5
		Total	**15.5**

Second Quarter

BT	127	Human Relations and Professional Development	3
BT	196	Skillbuilding	1
BUS	103	Basic Business Math and Electronic Calculators	5
CATT	190	Introduction to PowerPoint	2.5
MMGT	223	Customer Service	3
		Total	**14.5**

Third Quarter

BT	165	Word Processing	5
BT	204	Spreadsheet Design and Analysis	5
BT	272	Business Correspondence [1]	5
		Total	**15**

45 credits are required for the Certificate

1 May be substituted with BT 274.

GRAPHIC DESIGN: SFCC

Graphic Design
Associate in Applied Science

The two–year Graphic Design program is an intensive course of study that prepares students for entry–level jobs in design studios, advertising agencies, corporate in–house design departments and other businesses creating design, advertising and promotional content. Standards match job requirements that range from technical production abilities to high–level creative conceptualizing. The program curriculum incorporates industry design problems and projects to demonstrate student learning.

Courses in design process and technology interact to deliver the skills necessary to successfully complete specific design projects. The design skills students master are applied to projects in multiple media including print, online, video, animation, motion graphics, and social media platforms.

Guided by a local advisory committee of professional designers, the program is constantly updated with the goal of placing students in entry–level design jobs. Throughout the program, there is ample opportunity for students to interact with professionals via field trips, guest lecturers, adjunct faculty and the Internet. At the end of the second year, students create professional portfolios of their work and complete internships at industry work sites.

The Graphic Design program has a very competitive application process. For more information and to review the application process, please visit the program website at: graphicdesign.spokanefalls.edu/dZine/apply.html.

First Quarter

GRDSN	101	Design Process I	4
GRDSN	102	Design Technology I	3
GRDSN	105	Drawing for Graphic Designers	3
GRDSN	156	Illustrator I	2
GRDSN	158	PhotoShop I	2
GRDSN	181	Web Development I	4
		Total	**18**

Second Quarter

GRDSN	111	Design Process II	4
GRDSN	112	Design Technology II	3
GRDSN	151	Typography and Layout	3
GRDSN	163	InDesign I	2
		Computation Requirement [1]	5
		Software Elective	2
		Total	**19**

Third Quarter

GRDSN	109	History of Design	5
GRDSN	121	Design Process III	4
GRDSN	122	Design Technology III	3
GRDSN	125	Computer Drawing	3
		Communications Requirement [1]	5
		Total	**20**

Fourth Quarter

GRDSN	182	Web Development II [3]	3
GRDSN	201	Design Process IV	4
GRDSN	202	Design Technology IV	3
GRDSN	235	Multimedia I	3
		Area of Emphasis [2]	0-5
		Total	**13–18**

Fifth Quarter

GRDSN	211	Design Process V	4
GRDSN	212	Design Technology V	3
GRDSN	236	Multimedia II	3
		Area of Emphasis [2]	0-5
		Human Relations/Leadership Requirement [1]	5
		Total	**15–20**

Sixth Quarter

GRDSN	221	Design Process VI	4
GRDSN	223	Design Portfolio	3
GRDSN	237	Multimedia III	3
GRDSN	266	Cooperative Education Seminar	1
GRDSN	267	Cooperative Education Work Experience	3
		Area of Emphasis [2]	0-5
		Total	**14–19**

99-114 credits are required for the Associate in Applied Science

Area of Emphasis: Art

ART	105	Color and Design	5
ART	106	3-D Design	4
ART	130	Sculpture	4
ART	189	Printmaking	4
ART	191	Screen Printing	4
ART	192	Printmaking, Intaglio	4

Area of Emphasis: Business

MMGT	125	Social Media Marketing	5
MMGT	126	Search Engine Marketing	5
MMGT	218	Fundamentals of Advertising	5

Area of Emphasis: Journalism

GRDSN	168	InDesign II	2
JOURN	101	College Newspaper Production I	3-5
JOURN	220	Introduction to News Writing	5
JOURN	225	Multimedia Journalism	5
PHOTO	131	Introduction to Photojournalism	3

Area of Emphasis: Multimedia/Video

GRDSN	171	Animate 1	2
GRDSN	173	Flash II	2
GRDSN	175	After Effects	2
GRDSN	236	Multimedia II	3
PHOTO	126	Digital Photography	5
PHOTO	200	Photography Media	4-5
PHOTO	237	Introduction to Documentary DV Production	5

Area of Emphasis: Photography

PHOTO	112	Photographic Design	5
PHOTO	120	Photographic Arts	5
PHOTO	126	Digital Photography	5
PHOTO	131	Introduction to Photojournalism	3
PHOTO	200	Photography Media	4-5

Area of Emphasis: Web Design/Development

GRDSN	171	Animate 1	2
GRDSN	172	Dreamweaver	2
GRDSN	173	Flash II	2
GRDSN	174	Dreamweaver II	2
GRDSN	182	Web Development II	3

Communications Requirement

CMST&	101	Introduction to Communication	5
CMST	226	Gender Communication	5
CMST	227	Intercultural Communication	5
ENGL&	101	English Composition I	5
JOURN	220	Introduction to News Writing	5
JOURN	225	Multimedia Journalism	5

Computation Requirement

BUS	123	Practical Business Math Applications	5
MATH&	107	Math in Society	5
MATH	87	Algebra for Math Literacy I	5
MATH	88	Algebra for Math Literacy II	5
MATH	90	Pre-Algebra	5

Human Relations/Leadership Requirement

CMST&	210	Interpersonal Communication	5
CMST	226	Gender Communication	5
CMST	227	Intercultural Communication	5
HS	136	Improving Interpersonal Communication	5
HUM	107	Introduction to Cultural Studies	5
MMGT	101	Principles of Management	5
SOC&	101	Intro to Sociology	5
SOC	221	Race and Ethnic Relations	5
SOC	230	Sociology of Gender	5

Software Elective

GRDSN	164	Illustrator II	2
GRDSN	166	PhotoShop II	2
GRDSN	168	InDesign II	2
GRDSN	175	After Effects	2

1 Students must choose 5 credits in each of the following areas of related instruction: Communications, Computation and Human Relations/Leadership. A class cannot be used to fulfill more than one area. Students intending on transferring to another institution should consult with a faculty academic adviser prior to selecting these courses.

2 Students are required to meet with a Graphic Design Instructor to develop a learning plan and determine an area of emphasis to complete the Graphic Design AAS Degree. Credits may vary by emphasis. At least 9 – 15 credits are recommended. Only one AAS Degree in Graphic Design will be awarded. Students desiring additional emphasis areas can receive non–transcripted certificates of completion.

3 GRDSN 182 Web Development II may be substituted with GRDSN 142 Print Production.

Graphic Design
Associate in Applied Science–Transfer

The two–year Graphic Design program is an intensive course of study that prepares students for entry–level jobs in design studios, advertising agencies, corporate in–house design departments and other businesses creating design, advertising and promotional content. Standards match job requirements that range from technical production abilities to high–level creative conceptualizing. The program curriculum incorporates industry design problems and projects to demonstrate student learning. Courses in design process and technology interact to deliver the skills necessary to successfully complete specific design projects. The design skills students master are applied to projects in multiple media including print, online, video, animation, motion graphics, and social media platforms.

Guided by a local advisory committee of professional designers, the program is constantly updated with the goal of placing students in entry–level design jobs. Throughout the program, there is ample opportunity for students to interact with professionals via field trips, guest lecturers, adjunct faculty and the Internet. At the end of the second year, students create professional portfolios of their work and complete internships at industry work sites.

The Graphic Design program has a very competitive application process. For more information and to review the application process, please visit the program website at: graphicdesign.spokanefalls.edu/dZine/apply.html.

Eastern Washington University and Spokane Falls have created a working partnership giving graphic design students the best of both worlds in education and career choices.This partnership allows students to begin at SFCC, earn an AAS–T degree in graphic design and then transfer with junior standing to EWU. Students may earn a Bachelor of Arts in Visual Communication Design. Students must meet all University application deadlines and admission requirements in order to participate in this agreement. Students must have been awarded the AAS–T in Graphic Design degree before they can qualify for the EWU Bachelor of Arts in VCD degree.

First Quarter

GRDSN	101	Design Process I	4
GRDSN	102	Design Technology I	3
GRDSN	105	Drawing for Graphic Designers	3
GRDSN	156	Illustrator I	2
GRDSN	158	PhotoShop I	2
GRDSN	181	Web Development I	4
		Total	**18**

Second Quarter

GRDSN	111	Design Process II	4
GRDSN	112	Design Technology II	3
GRDSN	151	Typography and Layout	3
GRDSN	163	InDesign I	2
MATH&	107	Math in Society	5
		Software Elective	2
		Total	**19**

Third Quarter

ART&	100	Art Appreciation	5
GRDSN	109	History of Design	5
GRDSN	121	Design Process III	4
GRDSN	122	Design Technology III	3
GRDSN	125	Computer Drawing	3
		Total	**20**

Fourth Quarter

ENGL&	101	English Composition I	5
GRDSN	182	Web Development II	3
GRDSN	201	Design Process IV	4
GRDSN	202	Design Technology IV	3
GRDSN	235	Multimedia I	3
		Total	**18**

Fifth Quarter

ART	105	Color and Design	5
ENGL&	102	Composition II	5
GRDSN	211	Design Process V	4
GRDSN	212	Design Technology V	3
GRDSN	236	Multimedia II	3
		Total	**20**

Sixth Quarter

GRDSN	221	Design Process VI	4
GRDSN	223	Design Portfolio	3
PHIL&	101	Intro to Philosophy	5
SOC&	101	Intro to Sociology	5
		Total	**17**

112 credits are required for the Associate in Applied Science–Transfer

Software Elective

GRDSN	164	Illustrator II	2
GRDSN	166	PhotoShop II	2
GRDSN	168	InDesign II	2
GRDSN	175	After Effects	2

GREENHOUSE/NURSERY: SCC

Greenhouse-Nursery
Associate in Applied Science

The Greenhouse Nursery program provides a study of ornamental plant materials, plant propagation, greenhouse construction and nursery and greenhouse management methods.

At the completion of the second year, the student may receive the associate in applied science degree.

The following is a typical student schedule, individual student schedules may differ slightly depending on course availability. Courses may be offered only in the quarter indicated. Outlined curriculum assumes students begin the program fall quarter and continue winter and spring quarters, with summer quarter off. It

is recommended that students work closely with the program adviser or when planning classes.

First Quarter			
AGHRT	103	Introduction to Greenhouse and Nursery Production	3
AGHRT	104	Principles of Pest Management [2]	5
AGHRT	110	Fall Landscape Plant Materials	5
AGHRT	184	AgHort Occupational Preparation [1]	1
		Total	**14**
Second Quarter			
AGHRT	111	House Plants [2]	5
AGHRT	116	Green Industry Business Management [2]	5
AGHRT	126	Computer Essentials for Environmental Sciences [3]	2
ENVS	210	Environmental Soil Science [2]	5
		Total	**17**
Third Quarter			
AGHRT	105	Horticultural Retail Sales [2]	3
AGHRT	109	Introduction to Vegetable Gardening [2]	3
AGHRT	112	Spring Landscape Plant Materials [2]	5
AGHRT	185	AgHort Occupational Preparation [1]	1
ENVS	110	Plant Biology [2]	5
		Total	**17**
Fourth Quarter			
AGHRT	106	Greenhouse and Nursery Management I [2]	5
AGHRT	115	Pruning	2
AGHRT	204	Landscape Design 1 [2]	4
AGHRT	211	Floral Design Techniques [2]	5
		Total	**16**
Fifth Quarter			
AGHRT	107	Greenhouse and Nursery Management II [2]	5
AGHRT	202	Principles of Irrigation [2]	4
AGHRT	219	Soil Management and Fertility [2]	5
		Total	**14**
Sixth Quarter			
AGGEN	151	Shop Skills	4
AGHRT	108	Greenhouse and Nursery Management III [2]	4
AGHRT	195	Practicum [4]	2
AGHRT	230	Plant Problem Diagnosis [2]	5
AGHRT	232	Pest Management Project [2]	2
		Total	**17**

95 credits are required for the Associate in Applied Science

1 AGHRT 185 and 184 are related education requirements.

2 Related education requirement.

3 AGHRT 126 may be substituted with CIS 105 or 110. Related education requirement.

4 Practicum may be taken at any time during the second year.

Greenhouse-Nursery
Certificate

The Greenhouse Nursery program provides a study of ornamental plant materials, plant propagation, greenhouse construction and nursery and greenhouse management methods.

At the completion of the second year, the student may receive the associate in applied science degree.

The following is a typical student schedule, individual student schedules may differ slightly depending on course availability. Courses may be offered only in the quarter indicated. Outlined curriculum assumes students begin the program fall quarter and continue winter and spring quarters, with summer quarter off. It is recommended that students work closely with the program adviser or when planning classes.

First Quarter			
AGHRT	103	Introduction to Greenhouse and Nursery Production [2]	3
AGHRT	104	Principles of Pest Management [2]	5
AGHRT	110	Fall Landscape Plant Materials [2]	5
AGHRT	185	AgHort Occupational Preparation [1]	1
		Total	**14**
Second Quarter			
AGHRT	111	House Plants [2]	5
AGHRT	116	Green Industry Business Management [2]	5
AGHRT	126	Computer Essentials for Environmental Sciences [3]	2
ENVS	210	Environmental Soil Science	5
		Total	**17**
Third Quarter			
AGHRT	105	Horticultural Retail Sales	3
AGHRT	109	Introduction to Vegetable Gardening [2]	3
AGHRT	112	Spring Landscape Plant Materials	5
AGHRT	184	AgHort Occupational Preparation [1]	1
ENVS	110	Plant Biology [2]	5
		Total	**17**

48 credits are required for the Certificate

1 AGHRT 185 and 184 are related education requirements.

2 Related education requirement.

3 AGHRT 126 may be substituted with CIS 105 or 110. Related education requirement.

Small Farm Production
Associate in Applied Science

The Greenhouse Nursery program provides a study of ornamental plant materials, plant propagation, greenhouse construction and nursery and greenhouse management methods.

At the completion of the second year, the student may receive the associate in applied science degree.

The following is a typical student schedule, individual student schedules may differ slightly depending on course availability. Courses may be offered only in the quarter indicated. Outlined curriculum assumes students begin the program fall quarter and continue winter and spring quarters, with summer quarter off. It is recommended that students work closely with the program adviser or when planning classes.

First Quarter			
AGGEN	156	Equipment Operation and Maintenance	2
AGHRT	102	Pesticides and Fertilizer Application Equipment [2]	2
AGHRT	103	Introduction to Greenhouse and Nursery Production [2]	3
AGHRT	116	Green Industry Business Management [2]	5

AGHRT	126	Computer Essentials for Environmental Sciences [3]	2
AGHRT	184	AgHort Occupational Preparation [1]	1
		Total	**15**

Second Quarter

AGGEN	151	Shop Skills	4
AGHRT	101	Basic Crop Science [2]	5
AGHRT	185	AgHort Occupational Preparation [1]	1
ENVS	110	Plant Biology [2]	5
		Total	**15**

Third Quarter

AGHRT	104	Principles of Pest Management [2]	5
AGHRT	105	Horticultural Retail Sales [2]	3
AGHRT	109	Introduction to Vegetable Gardening [2]	3
AGHRT	195	Practicum	2
ENVS	210	Environmental Soil Science [2]	5
		Total	**18**

Fourth Quarter

AGHRT	106	Greenhouse and Nursery Management I [2]	5
AGHRT	115	Pruning	2
AGHRT	230	Plant Problem Diagnosis [2]	5
AGHRT	232	Pest Management Project [2]	2
		Total	**14**

Fifth Quarter

AGHRT	107	Greenhouse and Nursery Management II [2]	5
AGHRT	202	Principles of Irrigation [2]	4
AGHRT	219	Soil Management and Fertility [2]	5
		Total	**14**

Sixth Quarter

AGHRT	108	Greenhouse and Nursery Management III [2]	4
AGHRT	225	Weed Biology and Control	5
AGHRT	237	Small Farm Production [2]	5
AGHRT	238	Small Farm Marketing [2]	3
		Total	**17**

93 credits are required for the Associate in Applied Science

1 AGHRT 184 and 185 are related education requirements.

2 Related education requirement.

3 May be substituted with CIS 105 or CIS 110. Related education requirement.

Small Farm Production
Certificate

The Greenhouse Nursery program provides a study of ornamental plant materials, plant propagation, greenhouse construction and nursery and greenhouse management methods.

At the completion of the second year, the student may receive the associate in applied science degree.

The following is a typical student schedule, individual student schedules may differ slightly depending on course availability. Courses may be offered only in the quarter indicated. Outlined curriculum assumes students begin the program fall quarter and continue winter and spring quarters, with summer quarter off. It is recommended that students work closely with the program adviser or when planning classes.

First Quarter

AGGEN	156	Equipment Operation and Maintenance	2
AGHRT	102	Pesticides and Fertilizer Application Equipment [2]	2
AGHRT	103	Introduction to Greenhouse and Nursery Production [2]	3
AGHRT	116	Green Industry Business Management [2]	5
AGHRT	126	Computer Essentials for Environmental Sciences [2]	2
AGHRT	184	AgHort Occupational Preparation [1]	1
		Total	**15**

Second Quarter

AGGEN	151	Shop Skills	4
AGHRT	101	Basic Crop Science [2]	5
AGHRT	185	AgHort Occupational Preparation [1]	1
ENVS	110	Plant Biology [2]	5
		Total	**15**

Third Quarter

AGHRT	104	Principles of Pest Management [2]	5
AGHRT	105	Horticultural Retail Sales [2]	3
AGHRT	109	Introduction to Vegetable Gardening [2]	3
AGHRT	195	Practicum	2
ENVS	210	Environmental Soil Science [2]	5
		Total	**18**

48 credits are required for the Certificate

1 AGHRT 184 and 185 are related education requirements.

2 Related education requirement.

3 May be substituted with CIS 105 or CIS 110. Related education requirement.

HEALTH INFORMATION MANAGEMENT: SCC

Health Information Management
Associate in Applied Science

This AAS degree program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (www.cahiim.org) and prepares students for employment in maintaining and processing health information in hospitals, nursing facilities, ambulatory care clinics and health insurance agencies. Training in a realistic work environment include managing computer databases, coding and abstracting clinical data, quality control management of information, health–related legal principles and policies, and knowledge of the Health Insurance Portability and Accountability Act (HIPAA) and HITECH Act regulations. Upon completion of the program, students are eligible to take the Registered Health Information Technician (RHIT) certification exam offered by (AHIMA).

Each required course for graduation in the first year of the curriculum must be completed with a 2.0 grade or better before proceeding to the second year of the curriculum. A 2.5 grade is required for all HIM prefix courses and a 2.0 grade or better must be maintained in all other courses required for a degree. All HIM courses must be completed within five years.

Prerequisite/Admission Requirements:
- High School diploma or GED certificate

Students desiring a course of study leading to an associate in arts degree should consult the college catalog for the specific

degree requirements. The AA degree is recommended for students who may consider continuing their education in health information management or administration.

First Quarter

BIOL	105	General Biology w/Lab [1]	5
HED	125	Medical Terminology	5
HIM	103	HIM Theory and Practice	5
		Total	**15**

Second Quarter

BIOL	204	Human A & P 1 [2]	5
BUS	103	Basic Business Math and Electronic Calculators [3]	5
HIM	160	Computer Application in HIM	5
SURG	105	Blood-borne Pathogens and HIV/AIDS [4]	1
		Total	**16**

Third Quarter

BIOL	205	Human A & P 2 [5]	5
BT	272	Business Correspondence [6]	5
HIM	135	Comparative Health Records	4
HIM	162	Electronic Health Records	3
		Total	**17**

Fourth Quarter

HED	129	Pathophysiology	5
HIM	105	Legal Concepts in Health	3
HIM	167	Current Issues in HIM	4
HIM	203	Clinical Preparation	1
HIM	212	Acute Care Coding	5
		Total	**18**

Fifth Quarter

HED	145	Pharmacology	3
HIM	209	Health Data Analysis and Display	3
HIM	211	Quality Improvement [4]	4
HIM	214	Ambulatory Care Coding	5
HIM	215	ICD-10 Procedural Coding	4
		Total	**19**

Sixth Quarter

HIM	213	Clinical Practice	6
HIM	216	Reimbursement Strategies for HIM Professionals	5
HIM	240	HIM Clinical Seminar	4
		Total	**15**

100 credits are required for the Associate in Applied Science

1 BIOL 105 may be substituted with BIOL& 160. This course does not count towards the Associate of Arts degree science requirement and does not satisfy requirements of any allied health program.

2 BIOL 204 may be substituted with BIOL& 241. This course does not count towards the Associate of Arts degree science requirement and does not satisfy requirements of any allied health program.

3 BUS 103 may be substituted with BT 128.

4 This related education requirement may be met by any course or combination of courses approved by the instructional dean.

5 BIOL 205 may be substituted with BIOL& 242. This course does not count towards the Associate of Arts degree science requirement and does not satisfy requirements of any allied health program.

6 BT 272 may be substituted with ENGL& 235 or BT 274. Both BT 272 and ENGL& 235 contain course prerequisite requirements.

HEALTH/FITNESS TECHNICIAN: SFCC

Health/Fitness Technician
Associate in Applied Science

The Health/Fitness Technician program is a two–year career technical curriculum offered at Spokane Falls Community College. This program is designed for students looking toward a career in the health/fitness industry. Students who complete the two–year program and receive an associate in applied science degree (AAS) are prepared for entry level positions. Students interested in transferring to a four–year institution can utilize an articulation agreement with Eastern Washington University. This agreement allows students the option of transferring directly into the Exercise Science program at EWU.

Certification for fitness professionals, with its emphasis on safety, reliability and high standards, is required in most fitness facilities. The HFT program prepares students for several of the top rated accredited personal training certifications.

The HFT program provides instruction in professional areas such as exercise physiology, anatomical Kinesiology, sports nutrition, biomechanics, personal training, health screening, and exercise prescription. Related courses include stress management, first aid/ CPR and special considerations in exercise.

First Quarter

ENGL&	101	English Composition I	5
FMT	204	Health Appraisal and Exercise Prescription	5
HLTH	174	First Aid	3
		HFT Suggested Electives	3
		Total	**16**

Second Quarter

BIOL&	160	General Biology w/Lab	5
CMST&	101	Introduction to Communication	5
FMT	106	Anatomical and Physiological Kinesiology	5
		Total	**15**

Third Quarter

BIOL&	241	Human A & P 1	5
FMT	111	Physiology of Exercise	5
FMT	115	Leadership Dynamics	3
		HFT Suggested Electives	3
		Total	**16**

Fourth Quarter

BIOL&	242	Human A & P 2	5
FMT	209	Exercise and the Cardiovascular System	3
FMT	235	Biomechanics	5
PE	138	Fundamentals of Resistance Training	2
		Total	**15**

Fifth Quarter

FMT	119	Principles of Strength Training	5
HLTH	104	Stress Management	3
HLTH	270	Nutrition for Fitness	3
MATH&	107	Math in Society	5
		Total	**16**

Sixth Quarter

FMT	112	Special Considerations in Exercise	3
FMT	225	Personal Training	5
PE	266	Cooperative Education Seminar	1
PE	267	Cooperative Education Work Experience	3
		Total	**12**

90 credits are required for the Associate in Applied Science

HFT Suggested Electives

BUS&	101	Intro to Business	5
CMST	227	Intercultural Communication	5
PE	177	Beginning Body Conditioning	1
PE	186	Fast Fitness, Beginning	1
PE	187	Cross Training	2
PE	239	Weight Training	1
PE	277	Advanced Body Conditioning	1
PE	286	Fast Fitness, Advanced	1
PE	287	Cross Training	2
PSYC&	100	General Psychology	5
SOC&	101	Intro to Sociology	5

[1] Students planning to transfer to a four year institution should meet with their adviser to review the catalog and/or transfer manual of the school to which they plan to transfer before selecting courses.

HEARING INSTRUMENT SPECIALIST: SFCC

Hearing Instrument Specialist
Associate in Applied Science

Spokane Falls Community College offers a two–year program to prepare hearing instrument specialists for immediate employment in hearing health care establishments. The program includes study in physiology and anatomy, social science and technical hearing instrument courses. The Hearing Instrument Specialist program is primarily an online low residency program, meaning students complete coursework online with occasional meetings on–campus to verify skills and competencies.

Hearing instrument specialists find a variety of professional experiences available to them, including independent contracted employment, professional consulting, establishment ownership and technical support of related professions. After successful completion of the program, all educational requirements of the state (Washington State Department of Health) will have been satisfied, pursuant to state licensing as a duly authorized "Hearing Instrument Fitter/Dispenser."

Non–Local Students: Students who reside in Spokane have weekly on–campus labs. Students who live outside of the Spokane area work with mentors who are licensed hearing instrument dispensers. These mentors assist the students in weekly lab activities. Close communication between the mentor, student and faculty is important in order for a student to succeed in this challenging program.

Admission Requirements:

- Out of state students please refer to the tuition of "non–resident with waiver" section of web catalog.
- Ability to attend six on campus three–day sessions.
- Student must have secured a mentoring site if unable to make daily commute to college.
- Completion of HIS enrollment packet found at www.spokanefalls.edu/his

First Quarter

ENGL&	101	English Composition I [1]	5
HIS	101	Basic Hearing Instrument Sciences	4
HIS	104	Hearing Physiology and Anatomy	4
HIS	106	Healthcare and Business Ethics	4
		Total	**17**

Second Quarter

HIS	123	Basic Audiometrics	5
HIS	125	Auditory Disorders	4
HIS	127	Hearing Healthcare Management I	4
		Computation Related Instruction Requirement [1]	5
		Total	**18**

Third Quarter

HIS	134	Advanced Audiometrics	5
HIS	136	Hearing Instrument Technologies	4
HIS	138	Ear Couplers and Assistive Technologies	5
		Human Relations/Leadership Related Instruction [1]	5
		Total	**19**

Fourth Quarter

HIS	201	Hearing Healthcare Management II	4
HIS	206	Hearing Instrument Specialist Laboratory I	4
HIS	250	Perspectives on Disabilities	4
		Total	**12**

Fifth Quarter

HIS	210	Clinical Methods I	5
HIS	213	Marketing/Sales	4
HIS	215	Hearing Instrument Specialist Laboratory II	5
		Total	**14**

Sixth Quarter

HIS	205	Introduction to Speech-Language Pathology and Audiology	5
HIS	222	Clinical Methods II	6
HIS	266	Cooperative Education Seminar	1
HIS	267	Cooperative Education Work Experience	5
		Total	**17**

97 credits are required for the Associate in Applied Science

Computation Related Instruction Requirement

BUS	103	Basic Business Math and Electronic Calculators	5
BUS	123	Practical Business Math Applications	5
MATH	100	Vocational Technical Mathematics	5
MATH&	107	Math in Society	5

Human Relations/Leadership Related Instruction

BUS	280	Human Relations in Business	5
HS	136	Improving Interpersonal Communication	5

[1] Must choose 5 credits in each of the following areas of related instruction: Communications, Computation and Human Relations/Leadership. A class cannot be used to fulfill more than one area. Students intending on transferring to another institution should consult with a faculty academic adviser prior to selecting these courses.

HEATING, VENTILATION, AIR-CONDITIONING AND REFRIGERATION: SCC

Heating, Ventilation, Air Conditioning and Refrigeration
Associate in Applied Science

Completion of the two–year Heating, Ventilation, Air Conditioning and Refrigeration (HVAC/R) program at Spokane Community College prepares the student for an entry–level position in one of the most challenging occupations available.

Entry–level HVAC/R technicians typically work on residential and light commercial systems performing equipment installations, preventative maintenance, and service and repair functions. Opportunities also are available in systems design and sales.

Areas of study include basic HVAC/R systems, electricity, heating, local gas and oil codes, load calculations, cooling, refrigeration, duct design, and troubleshooting. These skills are taught from lab applications coordinated with classroom theory and actual jobsite experience.

First Quarter

AIRC	103	Fundamentals of Electricity in HVAC/R [3]	4
AIRC	106	HVAC/R Electrical Applications	6
AIRC	107	HVAC/R Electrical Applications Lab	8
APLED	112	Applied Mathematics [1]	5
		Total	**23**

Second Quarter

AIRC	108	Fundamentals of Heating Systems	6
AIRC	137	Fundamentals of Heating Systems Lab	8
APLED	121	Applied Written Communication [1]	4
		Total	**18**

Third Quarter

AIRC	109	Fundamentals of Refrigeration	5
AIRC	110	Fundamentals of Refrigeration Lab	10
AIRC	136	HVAC/R Safety	1
		Total	**16**

Fourth Quarter

AIRC	203	Fundamentals of Air Conditioning [2]	7
AIRC	204	Fundamentals of Air Conditioning Lab [2]	7
		Total	**14**

Fifth Quarter

AIRC	205	System Performance Testing	5
AIRC	206	System Performance Testing Lab	10
APLED	123	Leadership Skills for Business and Industry	4
		Total	**19**

Sixth Quarter

AIRC	207	System Servicing and Troubleshooting of Heat Pumps	5
AIRC	208	System Servicing and Troubleshooting of Heat Pumps Lab	10
APLED	125	Employment Preparation [1]	3
		Total	**18**

Seventh Quarter

AIRC	262	Fundamentals of Direct Digital Control	5
AIRC	265	Fundamentals of Direct Digital Control Lab	10
		Total	**15**

123 credits are required for the Associate in Applied Science

1 This related education requirement may be met by any course or combination of courses approved by the instructional dean.
2 The fourth quarter is held summer quarter.
3 This course must be taken in a student's first quarter in the program regardless of whether the student starts fall, winter, or spring.

HOTEL & RESTAURANT MANAGEMENT: SCC

Hotel and Restaurant Management
Associate in Applied Science

The Hotel and Restaurant Management program is a two–year course of study designed to develop qualified students in the organization and operation of hotels, motels and restaurants. Emphasis is placed on all aspects of food and beverage services including the operation of large and small restaurants and commercial/industrial food service programs; the management of such lodging facilities as all suite properties, hotels, resorts, private clubs, and bed and breakfast operations; and the study of travel and tourism and its impact on the hotel/restaurant industry.

The training provided by the Hotel and Restaurant Management program prepares students for entry into the fastest growing industry in the United States today. Individuals seeking a secure future in an exciting field should consider enrolling in the hotel and restaurant management program. A Restaurant Management option is available for students seeking career opportunities specifically in the restaurant field.

Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

First Quarter

CIS	105	Computer Fundamentals for Vocations I	3
HM	110	Introduction to Hospitality	5
HM	112	Hospitality Mathematics [1]	3
HM	115	Food Sanitation [2]	3
		Total	**14**

Second Quarter

BT	272	Business Correspondence [3]	5
HM	126	Food Science	5
HM	160	Supervisory Housekeeping	3
MMGT	223	Customer Service	3
		Total	**16**

Third Quarter

BT	160	Job Preparation Techniques	3
BUS	140	International Marketing	3
EMS	120	Basic First Aid in the Workplace	2
HM	130	Human Relations [4]	5
HM	141	Maintenance and Engineering	4
		Total	**17**

Fourth Quarter

ACCT	151	College Accounting I	5
HM	220	Tourism and the Hospitality Industry	3
HM	265	Hospitality Cost Controls	5
HM	288	Cooperative Education Work Experience (No Seminar)	3
		Total	**16**

Fifth Quarter

CMST	227	Intercultural Communication	5
HM	205	Hotel/Restaurant Law	5
HM	232	Hotel/Restaurant Management Principles [5]	5
		Total	**15**

Sixth Quarter

HM	202	Front Office Procedures	4
HM	208	Hotel Sales and Marketing	2
HM	251	Restaurant Management	5
MMGT	231	Human Resource Management	5
		Total	**16**

94 credits are required for the Associate in Applied Science

1 HM 112 may be substituted with BUS 103.
2 This course is required for certification by the Educational Foundation of the National Restaurant Association.
3 Score on the writing component of the COMPASS or ASSET test of 80% or better or a 2.0 grade or better in BT 105.
4 HM 130 may be substituted with BUS 280.
5 HM 232 may be substituted with MMGT 101.

Resort Food and Beverage
Certificate

The Resort Food & Beverage certificate will prepare a student for a career in the food and beverage industry; students learn about all different levels of service and types of food and beverage operations that are within hotels and resorts. Students will study the national sanitation standards, how to maintain food and beverage costs, as well as, develop menu planning skills.

Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

First Quarter

BT	152	College and Career Strategies	5
HM	110	Introduction to Hospitality	5
HM	130	Human Relations [1]	5
		Total	**15**

Second Quarter

BT	272	Business Correspondence [2]	5
HM	115	Food Sanitation [3]	3
HM	126	Food Science	5
		Total	**13**

Third Quarter

CMST	227	Intercultural Communication	5
HM	112	Hospitality Mathematics [4]	3
HM	251	Restaurant Management	5
MMGT	223	Customer Service	3
		Total	**16**

Fourth Quarter

BUS	140	International Marketing	3
EMS	120	Basic First Aid in the Workplace	2
HM	255	Menu Planning	3
HM	265	Hospitality Cost Controls	5
		Total	**13**

57 credits are required for the Certificate

1 HM 130 may be substituted with BUS 280.

2 Score on writing component of the COMPASS or ASSET test of 80% or better or 2.0 grade or better in BT 105.

3 This course is required for certification by the Educational Foundation of the National Restaurant Association.

4 HM 112 may be substituted with BUS 103.

Resort Lodging
Certificate

The Resort Lodging certificate will prepare students in all aspects that are involved with the rooms division of a hotel and resort, front desk systems and housekeeping operations. The student will learn customer services and marketing techniques that are also associated with hotels and resorts.

Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

First Quarter

BT	152	College and Career Strategies	5
HM	110	Introduction to Hospitality	5
HM	112	Hospitality Mathematics [1]	3
		Total	**13**

Second Quarter

BT	272	Business Correspondence [2]	5
HM	130	Human Relations [3]	5
HM	160	Supervisory Housekeeping	3
		Total	**13**

Third Quarter

BUS	140	International Marketing	3
HM	141	Maintenance and Engineering	4
HM	202	Front Office Procedures	4
MMGT	223	Customer Service	3
		Total	**14**

Fourth Quarter

CMST	227	Intercultural Communication	5
HM	208	Hotel Sales and Marketing	2
HM	265	Hospitality Cost Controls	5
		Total	**12**

52 credits are required for the Certificate

1 HM 112 may be substituted with BUS 103.

2 Score on the writing component of the COMPASS or ASSET test of 80% or better or 2.0 grade or better in BT 105.

3 HM 130 may be substituted with BUS 280.

Resort Management
Certificate

The Resort Management certificate program will educate students on entry–level management positions and skills needed in hotels and resorts. The student will learn about the systems, and management techniques needed to be successful managers in the hospitality industry. Successful managers in the industry require interpersonal skills and the ability to understand all aspects of the working relationships between multiple–departments within full–service hotels and resorts.

Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

First Quarter

BT	152	College and Career Strategies	5
HM	110	Introduction to Hospitality	5
HM	112	Hospitality Mathematics [1]	3
HM	220	Tourism and the Hospitality Industry	3
		Total	**16**

Second Quarter

ACCT	151	College Accounting I	5
BT	272	Business Correspondence [2]	5
HM	130	Human Relations [3]	5
		Total	**15**

Third Quarter

CATT	138	Microsoft Excel I	2.5
CMST	227	Intercultural Communication	5
HM	205	Hotel/Restaurant Law	5
MMGT	223	Customer Service	3
		Total	**15.5**

Fourth Quarter

EMS	120	Basic First Aid in the Workplace	2
HM	232	Hotel/Restaurant Management Principles [4]	5
MMGT	231	Human Resource Management	5
		Total	**12**

58.5 credits are required for the Certificate

1 HM 112 may be substituted with BUS 103.

2 Score on writing component of the COMPASS or ASSET test of 80% or better or 2.0 grade or better in BT 105.

[3] HM 130 may be substituted with BUS 280.

[4] HM 232 may be substituted with MMGT 101.

Restaurant Management
Associate in Applied Science

The Hotel and Restaurant Management program is a two–year course of study designed to develop qualified students in the organization and operation of hotels, motels and restaurants. Emphasis is placed on all aspects of food and beverage services including the operation of large and small restaurants and commercial/industrial food service programs; the management of such lodging facilities as all suite properties, hotels, resorts, private clubs, and bed and breakfast operations; and the study of travel and tourism and its impact on the hotel/restaurant industry.

The training provided by the Hotel and Restaurant Management program prepares students for entry into the fastest growing industry in the United States today. Individuals seeking a secure future in an exciting field should consider enrolling in the hotel and restaurant management program. A Restaurant Management option is available for students seeking career opportunities specifically in the restaurant field.

Students must complete all courses with a 2.0 grade or better before advancing to subsequent quarters.

First Quarter

CIS	105	Computer Fundamentals for Vocations I	3
HM	110	Introduction to Hospitality	5
HM	112	Hospitality Mathematics [1]	3
HM	115	Food Sanitation [2]	3
		Total	**14**

Second Quarter

BT	272	Business Correspondence [3]	5
HM	126	Food Science	5
MMGT	223	Customer Service	3
		Total	**13**

Third Quarter

BT	160	Job Preparation Techniques	3
BUS	140	International Marketing	3
EMS	120	Basic First Aid in the Workplace	2
HM	130	Human Relations [4]	5
HM	141	Maintenance and Engineering	4
		Total	**17**

Fourth Quarter

ACCT	151	College Accounting I	5
HM	220	Tourism and the Hospitality Industry	3
HM	265	Hospitality Cost Controls	5
HM	288	Cooperative Education Work Experience (No Seminar)	3
		Total	**16**

Fifth Quarter

CMST	227	Intercultural Communication	5
HM	205	Hotel/Restaurant Law	5
HM	232	Hotel/Restaurant Management Principles [5]	5
HM	255	Menu Planning	3
		Total	**18**

Sixth Quarter

HM	208	Hotel Sales and Marketing	2
HM	251	Restaurant Management	5
MMGT	231	Human Resource Management	5
		Total	**12**

90 credits are required for the Associate in Applied Science

[1] HM 112 may be substituted with BUS 103.

[2] This course is required for certification by the Educational Foundation of the National Restaurant Association.

[3] Score on writing component of the COMPASS or ASSET test of 80% or better or a 2.0 grade or better in BT 105.

[4] HM 130 may be substituted with BUS 280.

[5] HM 232 may be substituted with MMGT 101.

HYDRAULIC AND PNEUMATIC AUTOMATION: SCC

Hydraulic and Pneumatic Automation Technician
Associate in Applied Science

Graduates from the Hydraulic and Pneumatic Automation Technology program have developed skills to qualify for employment in hydraulic and pneumatic sales, automated equipment fabrication or plant machinery maintenance work.

Activities in sales and distribution vary from warehousing, inside sales, purchasing, outside sales, power unit fabrication to field service work. Each area offers challenging work, with most employers providing on–the–job training for product familiarization and developing the special skills required for sales and service in pneumatic automation products.

Activities include equipment or circuit design, shop assembly, installation of complex electro–hydraulic systems, field installation of new equipment or servicing existing equipment. Field service can involve world travel with a lot of time away from home.

Activities in industrial plant maintenance vary from installing new equipment to troubleshooting and repairing existing equipment. This requires developing analytical procedures and certain mechanical abilities or skills to improve equipment performance and reliability.

A 2.0 GPA or better must be maintained in all hydraulic and pneumatic automation technology coursework before advancing to the subsequent quarter. Students not meeting this minimum requirement may repeat the course(s) one time before progressing. A student who is below the minimum 2.0 GPA may seek a one–time waiver with the approval of the division dean.

First Quarter

APLED	113	Introduction to Computers for Technology	4
FLPT	121	Pneumatic Theory	6
FLPT	122	Drawing Fundamentals	3
FLPT	123	Machine Controls	7
		Total	**20**

Second Quarter

FLPT	111	Hydraulic Calculations	5
FLPT	112	Hydraulic Basics and Theory	5
FLPT	113	Blueprint Reading	4
FLPT	114	Basic Hydraulics Lab	2
WELD	153	HPAT Welding	3
		Total	**19**

Third Quarter

APLED	121	Applied Written Communication [1]	4
FLPT	131	Hydraulic Systems	6
FLPT	132	Fluid Line Fabrication	2
FLPT	133	Fluid Line Connectors	5
FLPT	134	Shop Drawing	2
FLPT	135	Fluid Line Sizing Calculations	2
		Total	**21**

Fourth Quarter

APLED	123	Leadership Skills for Business and Industry [1]	3
FLPT	230	Advanced Pneumatics Theory	3
FLPT	231	Advanced Pneumatics Lab	2
FLPT	232	Mechanical Drive Systems Theory	3
FLPT	233	Mechanical Drive Systems Lab	3
FLPT	234	Velocity and Load Calculations	1
FLPT	243	Advanced Machine Controls	5
		Total	**20**

Fifth Quarter

APLED	125	Employment Preparation [1]	3
FLPT	251	Hydraulic Circuits	4
FLPT	252	Hydraulic Component Repair	6
FLPT	253	Fluid Line Layout and Assembly	2
FLPT	254	Advanced Hydraulics Lab	3
FLPT	279	Proportional Valves	4
		Total	**22**

Sixth Quarter

FLPT	264	Fluid Power Computer Applications [2]	4
FLPT	265	Hydraulic Circuit Design [2]	3
FLPT	268	Fluid Power Application and Sales [2]	5
FLPT	269	Hydraulic Manifold Design [2]	5
		Total	**17**

119 credits are required for the Associate in Applied Science

1 This related education requirement may be met by any course or combination of courses approved by the instructional dean.
2 Sixth quarter courses may be substituted with the following courses with department permission: FLPT 266 (1 credit) and FLPT 267 (1–16 credits) or FLPT 288 (1–17 credits).

Hydraulic and Pneumatic Automation Technician Certificate

Graduates from the Hydraulic and Pneumatic Automation Technology program have developed skills to qualify for employment in hydraulic and pneumatic sales, automated equipment fabrication or plant machinery maintenance work.

Activities in sales and distribution vary from warehousing, inside sales, purchasing, outside sales, power unit fabrication to field service work. Each area offers challenging work, with most employers providing on–the–job training for product familiarization and developing the special skills required for sales and service in pneumatic automation products.

Activities include equipment or circuit design, shop assembly, installation of complex electro–hydraulic systems, field installation of new equipment or servicing existing equipment. Field service can involve world travel with a lot of time away from home.

Activities in industrial plant maintenance vary from installing new equipment to troubleshooting and repairing existing equipment. This requires developing analytical procedures and certain mechanical abilities or skills to improve equipment performance and reliability.

A 2.0 GPA or better must be maintained in all hydraulic and pneumatic automation technology coursework before advancing to the subsequent quarter. Students not meeting this minimum requirement may repeat the course(s) one time before progressing. A student who is below the minimum 2.0 GPA may seek a one–time waiver with the approval of the division dean.

First Quarter

APLED	113	Introduction to Computers for Technology	4
FLPT	121	Pneumatic Theory	6
FLPT	122	Drawing Fundamentals	3
FLPT	123	Machine Controls	7
		Total	**20**

Second Quarter

FLPT	111	Hydraulic Calculations	5
FLPT	112	Hydraulic Basics and Theory	5
FLPT	113	Blueprint Reading	4
FLPT	114	Basic Hydraulics Lab	2
WELD	153	HPAT Welding	3
		Total	**19**

Third Quarter

APLED	121	Applied Written Communication [1]	4
FLPT	131	Hydraulic Systems	6
FLPT	132	Fluid Line Fabrication	2
FLPT	133	Fluid Line Connectors	5
FLPT	134	Shop Drawing	2
FLPT	135	Fluid Line Sizing Calculations	2
		Total	**21**

Fourth Quarter

		Applied Education Elective	3
		Total	**3**

63 credits are required for the Certificate

Applied Education Elective

APLED	123	Leadership Skills for Business and Industry	3
APLED	125	Employment Preparation	3

1 This related education requirement may be met by any course or combination of courses approved by the instructional dean.

INFORMATION TECHNOLOGY: SFCC

Information Technology
Associate in Applied Science

The Information Technology AAS degree program is designed to provide students with capabilities in several areas of information technology:

- Computer and network installation and maintenance skills.
- Business computing skills including daily systems operations and applications programs.
- Security and forensics skills.
- Various Internet and network skills including web pages design, client/server side programming, web server installation and maintenance.
- Transfer option to a four–year institution.

This degree insures that the student is knowledgeable in a broad spectrum of information technology subjects that are often needed by the IT industry.

First Quarter

BT	100	Beginning Keyboarding	1
ENGL&	101	English Composition I	5
IS	101	Planning For Information Technology Students	1
IS	103	Information Technology Fundamentals	5
IS	105	Applications for IT I	3
		Total	**15**

Second Quarter

IS	107	Applications for IT II	3

IS	132	Computer Ethics and Law	5
IS	162	Data Communications and Networks	3
IS	210	Internet Programming I	5
		Total	**16**

Third Quarter

CS	121	UNIX/Linux	3
ENGL&	235	Technical Writing	5
IS	144	Programming Fundamentals	3
PHYS	100	Introductory Physics	5
		Total	**16**

Fourth Quarter

CS	223	Programming for IT	5
IS	260	Database Theory	5
IS	262	Network Management	5
		Total	**15**

Fifth Quarter

IS	234	Computer Forensics I	5
IS	244	Network Security I	5
MATH	98	Algebra III [1]	5
		Total	**15**

Sixth Quarter

IS	228	Internet Servers	5
IS	245	Network Security II	5
IS	266	Cooperative Education Seminar	1
IS	267	Cooperative Education Work Experience	2
		Total	**13**

90 credits are required for the Associate in Applied Science

[1] or MATH 88

INTERIOR DESIGN: SFCC

Interior Design
Associate in Applied Science

The Interior Design program at Spokane Falls Community College offers a broad–based and professionally relevant curriculum designed to enable graduates to successfully compete for jobs and to work as residential interior designers. The curriculum is composed of both science and art –which enables our graduates to blend creativity with technical elements for a successful foundation of industry skills.

Students who enter the program have two degree options: Associate in Applied Science –Interior Design (AAS) or Associate in Applied Science–Interior Design Transfer (AAST) degree.

Students may complete an Associate in Applied Science degree (AAS) in six quarters with an emphasis in residential interior design, and a broad understanding of interior design as a profession. Graduates are qualified to obtain employment within the industry of residential design and construction. Graduates of the program have gone on to work with specialized kitchen and bathroom designers, residential contractors, residential design retail showrooms and suppliers, large–scale residential casework manufacturers, and many have entered the real estate market as investors, realtors, home stagers, and house flippers!

Students who wish to continue their design education at a four–year college or university in a related field (interior design, architecture, landscape architecture, construction management, environmental design, or graphic design), can earn the Associate in Applied Science Transfer degree. This degree has the same design fundamentals and emphasis on residential design as the AAS degree, along with a more complete package of generally transferrable related instruction courses, which will make your transition into a 4–year program much simpler. There are five related instruction courses in the AAST degree (ENGL& 101, MATH 107, ART& 100, CMST& 220, and PSYC& 100), and three in the AAS degree (ENGL& 101, BUS 123, and CMST& 220).

Not sure which degree path is right for you? The first quarter curriculum for both degrees is the same, so you can decide after you have a better understanding of the interior design industry.

First Quarter

ART	101	Fundamentals of Drawing	4
ENGL&	101	English Composition I	5
INTDS	170	Introduction to Interior Design	3
INTDS	173	Drafting for Interior Design	4
		Total	**16**

Second Quarter

BUS	123	Practical Business Math Applications	5
INTDS	106	Sketching/ Rendering	4
INTDS	184	Drawing Communication	4
INTDS	280	Textiles for Interiors	3
		Total	**16**

Third Quarter

CMST&	220	Public Speaking	5
INTDS	175	Materials of Interior Design	5
INTDS	285	Computer Aided Design I	4
		Total	**14**

Fourth Quarter

INTDS	171	Interior Design Studio I	6
INTDS	185	Building Systems / Lighting	5
INTDS	286	Computer Aided Design II	4
		Total	**15**

Fifth Quarter

INTDS	172	Interior Design Studio II	6
INTDS	179	History of Interiors I	3
INTDS	294	Adobe for Interior Design	4
		Total	**13**

Sixth Quarter

INTDS	176	Interior Design Studio III	6
INTDS	180	History of Interiors II	3
INTDS	268	Design Portfolio	4
INTDS	275	Professional Practices	3
		Total	**16**

90 credits are required for the Associate in Applied Science

Interior Design
Associate in Applied Science–Transfer

The Interior Design program at Spokane Falls Community College offers a broad–based and professionally relevant curriculum designed to enable graduates to successfully compete for jobs and to work as residential interior designers. The curriculum is composed of both science and art –which enables our graduates to blend creativity with technical elements for a successful foundation of industry skills.

Students who enter the program have two degree options: Associate in Applied Science –Interior Design (AAS) or Associate in Applied Science–Interior Design Transfer (AAST) degree.

Students may complete an Associate in Applied Science degree (AAS) in six quarters with an emphasis in residential interior design, and a broad understanding of interior design as a

profession. Graduates are qualified to obtain employment within the industry of residential design and construction. Graduates of the program have gone on to work with specialized kitchen and bathroom designers, residential contractors, residential design retail showrooms and suppliers, large–scale residential casework manufacturers, and many have entered the real estate market as investors, realtors, home stagers, and house flippers!

Students who wish to continue their design education at a four–year college or university in a related field (interior design, architecture, landscape architecture, construction management, environmental design, or graphic design), can earn the Associate in Applied Science Transfer degree. This degree has the same design fundamentals and emphasis on residential design as the AAS degree, along with a more complete package of generally transferrable related instruction courses, which will make your transition into a 4–year program much simpler. There are five related instruction courses in the AAST degree (ENGL& 101, MATH 107, ART& 100, CMST& 220, and PSYC& 100), and three in the AAS degree (ENGL& 101, BUS 123, and CMST& 220).

Not sure which degree path is right for you? The first quarter curriculum for both degrees is the same, so you can decide after you have a better understanding of the interior design industry.

First Quarter

ART	101	Fundamentals of Drawing	4
ENGL&	101	English Composition I	5
INTDS	170	Introduction to Interior Design	3
INTDS	173	Drafting for Interior Design	4
		Total	**16**

Second Quarter

INTDS	106	Sketching/ Rendering	4
INTDS	184	Drawing Communication	4
INTDS	280	Textiles for Interiors	3
MATH&	107	Math in Society	5
		Total	**16**

Third Quarter

CMST&	220	Public Speaking	5
INTDS	175	Materials of Interior Design	5
INTDS	285	Computer Aided Design I	4
		Total	**14**

Fourth Quarter

INTDS	171	Interior Design Studio I	6
INTDS	185	Building Systems / Lighting	5
INTDS	286	Computer Aided Design II	4
		Total	**15**

Fifth Quarter

INTDS	172	Interior Design Studio II	6
INTDS	179	History of Interiors I	3
INTDS	294	Adobe for Interior Design	4
PSYC&	100	General Psychology	5
		Total	**18**

Sixth Quarter

ART&	100	Art Appreciation	5
INTDS	176	Interior Design Studio III	6
INTDS	180	History of Interiors II	3
		Total	**14**

93 credits are required for the Associate in Applied Science–Transfer

Interior Design
Professional Diploma

The Interior Design program at Spokane Falls Community College offers a broad–based and professionally relevant curriculum designed to enable graduates to successfully compete for jobs and to work as residential interior designers. The curriculum is composed of both science and art –which enables our graduates to blend creativity with technical elements for a successful foundation of industry skills.

Students who enter the program have two degree options: Associate in Applied Science –Interior Design (AAS) or Associate in Applied Science–Interior Design Transfer (AAST) degree.

Students may complete an Associate in Applied Science degree (AAS) in six quarters with an emphasis in residential interior design, and a broad understanding of interior design as a profession. Graduates are qualified to obtain employment within the industry of residential design and construction. Graduates of the program have gone on to work with specialized kitchen and bathroom designers, residential contractors, residential design retail showrooms and suppliers, large–scale residential casework manufacturers, and many have entered the real estate market as investors, realtors, home stagers, and house flippers!

Students who wish to continue their design education at a four–year college or university in a related field (interior design, architecture, landscape architecture, construction management, environmental design, or graphic design), can earn the Associate in Applied Science Transfer degree. This degree has the same design fundamentals and emphasis on residential design as the AAS degree, along with a more complete package of generally transferrable related instruction courses, which will make your transition into a 4–year program much simpler. There are five related instruction courses in the AAST degree (ENGL& 101, MATH 107, ART& 100, CMST& 220, and PSYC& 100), and three in the AAS degree (ENGL& 101, BUS 123, and CMST& 220).

Not sure which degree path is right for you? The first quarter curriculum for both degrees is the same, so you can decide after you have a better understanding of the interior design industry.

Note: Students must complete the AAS degree in interior design and complete the review processes to enroll in commercial design specialty courses and earn a professional diploma.

First Quarter

GRDSN	158	PhotoShop I	2
GRDSN	163	InDesign I	2
INTDS	281	Interior Design Studio IV	6
INTDS	286	Computer Aided Design II	4
SOC&	101	Intro to Sociology	5
		Total	**19**

Second Quarter

INTDS	275	Professional Practices	3
INTDS	282	Interior Design Studio V	6
INTDS	287	Digital Interior Design Technology	4
INTDS	289	Computer Aided Design III	4
		Total	**17**

Third Quarter

ENVS&	101	Intro to Env Science	5
INTDS	266	Cooperative Education Seminar	1
INTDS	267	Cooperative Education Work Experience	3
INTDS	268	Design Portfolio	4
		Total	**13**

49 credits are required for the Professional Diploma

INTERPRETER TRAINING: SFCC

Interpreter Training Program
Certificate

The AAS–T is an associate degree providing comprehensive core Interpreter Training Program content based on the CEIC accreditation standards. The critical content coursework in the AAS–T addresses all of the Educational Interpreter competencies required by the Washington State Board of Education for Educational Interpreter standards in the state of Washington (RCW 72.40.080) and interpreters in Deaf Education P–12 from OSPI. The balance of the degree is made up of significant general education coursework credits necessary for transfer.

The Interpreter Training Program is an innovative program that offers the opportunity to acquire basic skills to launch into a new career in the sign language interpreting field skill in American Sign Language or to use sign language as a foreign language credit. All program courses are offered on campus and online.

Those who are skilled interpreters provide a valuable service to society making it possible to provide equal access for deaf and hard–of–hearing people to all areas of employment, social services and education.

Students applying for a certificate of completion must currently hold an AA, AAS, BA or BS, have completed ASL& 121, 122, 123 and PSYC& 100, and complete a specified 85 credit sequence of courses in the human services interpreter training program.

Prerequisites

ASL&	121	Am Sign Language I	
ASL&	122	Am Sign Language II	
ASL&	123	Am Sign Language III	
ENGL&	101	English Composition I	
MATH&	107	Math in Society	
PSYC&	100	General Psychology	

Courses

		Prerequisite: AA, AAS, BA or BS Degree	0
		Total	**0**

First Quarter

ASL&	221	American Sign Language IV	5
EDUC&	204	Exceptional Child	5
ITP	241	Deaf Social and Cultural Issues	5
		Total	**15**

Second Quarter

ASL&	222	American Sign Language V	5
ITP	104	Introduction to Audiologic Rehabilitation/Habilitation	4
ITP	231	Theories of Discourse Analysis	3
ITP	232	ASL Linguistic Principles	2
		Total	**14**

Third Quarter

ASL&	223	American Sign Language VI	5
ITP	233	Manually Coded English Systems	5
PSYC&	200	Lifespan Psychology	5
		Total	**15**

Fourth Quarter

ITP	245	Ethics and Principles in Educational Interpreting	5
ITP	251	Interpreting I	5
ITP	261	Transliteration I	5
ITP	281	Applied Interpreting I	1
		Total	**16**

Fifth Quarter

ITP	252	Interpreting II	5
ITP	262	Transliteration II	5
ITP	282	Applied Interpreting II	2
		Total	**12**

Sixth Quarter

ITP	253	Interpreting III	5
ITP	263	Transliteration III	5
ITP	283	Applied Interpreting III	3
		Total	**13**

85 credits are required for the Certificate

Interpreter Training Program
Associate in Applied Science–Transfer

The AAS–T is an associate degree providing comprehensive core Interpreter Training Program content based on the CEIC accreditation standards. The critical content coursework in the AAS–T addresses all of the Educational Interpreter competencies required by the Washington State Board of Education for Educational Interpreter standards in the state of Washington (RCW 72.40.080) and interpreters in Deaf Education P–12 from OSPI. The balance of the degree is made up of significant general education coursework credits necessary for transfer.

The Interpreter Training Program is an innovative program that offers the opportunity to acquire basic skills to launch into a new career in the sign language interpreting field skill in American Sign Language or to use sign language as a foreign language credit. All program courses are offered on campus and online.

Those who are skilled interpreters provide a valuable service to society making it possible to provide equal access for deaf and hard–of–hearing people to all areas of employment, social services and education.

AAS–T Program Competitive Admission Requirements

- Application completed with transcripts attached.
- Language proficiency equivalent to the completion of ASL& 123.
- Placement exam results for Math and English are required for program eligibility.

First Quarter

ASL&	221	American Sign Language IV	5
ENGL&	101	English Composition I [1]	5
ITP	241	Deaf Social and Cultural Issues	5
		Total	**15**

Second Quarter

ASL&	222	American Sign Language V	5
ITP	104	Introduction to Audiologic Rehabilitation/Habilitation	4
ITP	231	Theories of Discourse Analysis	3
ITP	232	ASL Linguistic Principles	2
		Total	**14**

Third Quarter

ASL&	223	American Sign Language VI	5
ITP	233	Manually Coded English Systems	5
PSYC&	200	Lifespan Psychology [3]	5
		Total	**15**

Fourth Quarter

ITP	245	Ethics and Principles in Educational Interpreting	5
ITP	251	Interpreting I	5

ITP	261	Transliteration I	5
ITP	281	Applied Interpreting I	1
		Total	**16**

Fifth Quarter

ITP	252	Interpreting II	5
ITP	262	Transliteration II	5
ITP	282	Applied Interpreting II	2
MATH&	107	Math in Society [2]	5
		Total	**17**

Sixth Quarter

ITP	253	Interpreting III	5
ITP	263	Transliteration III	5
ITP	283	Applied Interpreting III	3
		Total	**13**

90 credits are required for the Associate in Applied Science–Transfer

1 ENGL& 101 may be substituted with MATH& 107 Math in Society.
2 MATH& 107 or ENGL& 101 whichever was not taken in the 1st Quarter.
3 PSYC& 100 General Psychology must be taken before PSYC& 200 and completed with a 2.0 or higher or accepted by the PSYC& 200 instructor.

INVASIVE CARDIOVASCULAR TECHNOLOGY: SCC

Invasive Cardiovascular Technology
Associate in Applied Science

The invasive cardiovascular technologist is a health care professional who, through the use of specific high–technology equipment and at the direction of a qualified physician, performs procedures on patients leading to the diagnosis and treatment of congenital and acquired heart disease, and peripheral vascular disease.

As a member of the cardiac catheterization team, the cardiovascular technologist is a surgical scrub assistant, monitors the patient's condition and operates other "CATH Lab." equipment.

The most important "CATH Lab" studies are coronary angiography, percutaneous coronary intervention (where stents, balloons, plaque removal devices, and other treatments to restore blood flow are deployed), right heart catheterization (where blood flow measurements are made), electrophysiology (where irregular heartbeats are created, studied and treated) and pacemaker implantations.

The invasive cardiovascular technologist also works with physicians during critical times during heart attacks by restoring blood flow to diseased areas of the heart. They assist with percutaneous revascularization, give clot–dissolving drugs, and operate cardiac assist pumps.

The first year of the Invasive Cardiovascular program teaches basic sciences and cardiology and is combined with the Noninvasive Cardiovascular program. In the second year, the Invasive students concentrate on the technical duties of a cardiac catheterization technologist and spend time working in local hospital cardiac laboratories.

Upon completion of the didactic training (six quarters), the student selects an out–of–town medical center where he/she will complete the final quarter of clinical internship. Students may take the CCI National Registry Exam upon graduation. The program is the only CAAHEP approved invasive technology program in the northwestern United States. The Cardiovascular Technology Programs (Invasive and Noninvasive) are accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Joint Review Committee for Cardiovascular Technology (www.jrccvt.org). JRC–CVT 6 Pine Knoll Dr. Beverly, MA 01915–1425

- High school diploma or GED certificate required
- Appropriate math score
- Self–place into English
- Computer skills recommended
- Active e–mail account recommended
- A 2.0 grade must be maintained quarterly in each course before proceeding to the next quarter.
- Students may repeat an invasive cardiovascular course once, but it must be repeated within two years.

Prerequisites

BIOL&	160	General Biology w/Lab
BIOL&	241	Human A & P 1
BIOL&	242	Human A & P 2
CMST&	210	Interpersonal Communication
ENGL&	101	English Composition I
MATH	99	Intermediate Algebra
PHYS	100	Introductory Physics

First Quarter

HED	109	Human Physiology and Disease	5
ICT	114	Introduction to Cardiac Care	3
ICT	115	Technical Skills - CPR for Health Care Providers	1
ICT	116	Acute Coronary Syndrome	1
ICT	117	Cardiovascular Pharm 1	1
ICT	213	Electrophysiology	4
		Total	**15**

Second Quarter

ICT	124	CV Diagnostic Exams	4
ICT	125	Hemodynamics	2
ICT	126	Technical Skills/Reading Hemodynamics	1
ICT	127	Cardiovascular Pharm 2/Intravenous Therapy	1
ICT	128	Technical Skills/Pharmacology/Intravenous Therapy	1
ICT	129	Basic Life Support Instructor Course	2
PHYS	120	Fundamentals of Medical Physics	5
		Total	**16**

Third Quarter

ICT	134	Cath Lab Procedures	3
ICT	135	Technical Skills Cath Lab Procedures	1
ICT	138	Cardiovascular Physiology	4
ICT	139	Radiation Safety	2
ICT	140	Surgical Asepsis	1
ICT	141	Technical Skills/Surgical Asepsis	1
		Total	**12**

Fourth Quarter

ICT	144	Patient Care and Assessment	4
ICT	145	Technical Skills/Cath Lab Boot Camp/Patient Care	4
ICT	146	Cath Lab Clinical I	6
		Total	**14**

Fifth Quarter

ICT	203	Advanced Cardiac Life Support Course	2
ICT	204	Advanced Cardiac Life Support Technical Skills Lab	1
ICT	214	Cardiac Interventions/PCI	3
ICT	215	Interventional Radiology	2

ICT	216	Electrophysiology 1 Introduction to Devices	2
ICT	217	Technical Skills/PCI/EP/Special Equipment	2
ICT	218	Cath Lab Clinical II	5
ICT	219	Cardiopulmonary Pathophysiology	1
		Total	**18**

Sixth Quarter

ICT	224	Advanced Practices/Management	5
ICT	225	Pediatric Cath	1
ICT	226	Statistics and Research	1
ICT	227	Electrophysiology 2 Interventions	2
ICT	228	Technical Skills/Peds/Special Procedures/EP	2
ICT	229	Cath Lab Clinical III	5
		Total	**16**

Seventh Quarter

ICT	234	Board Registry (RCIS) Prep Blackboard	4
ICT	235	Cath Lab Clinical IV	12
		Total	**16**

107 credits are required for the Associate in Applied Science

[1] To meet the requirements of the Invasive Cardiovascular Technology program, CMST& 210 should be taken on campus rather than as an online course.

LANDSCAPE MANAGEMENT: SCC

Arboriculture/Urban Forestry
Associate in Applied Science

The landscape program provides a study of turf and ornamental plant materials and how they relate to landscape design, construction, installation, maintenance, bidding & estimating, irrigation and arboriculture. The curriculum is built around landscape certified competencies. At the completion of the second year, the student may receive the associate in applied sciences degree.

This program is accredited by the Professional Landcare Network (PLANET) landcarenetwork.org

The following is a typical student schedule, individual student schedules may differ slightly depending on course availability. Courses may only be offered in the quarter indicated. Outlined curriculum assumes students begin the program fall quarter and continue winter and spring quarters, with summer quarter off. It is recommended that students work closely with the program advisor when planning classes.

First Quarter

AGGEN	156	Equipment Operation and Maintenance	2
AGHRT	102	Pesticides and Fertilizer Application Equipment [2]	2
AGHRT	104	Principles of Pest Management [2]	5
AGHRT	110	Fall Landscape Plant Materials [2]	5
AGHRT	126	Computer Essentials for Environmental Sciences [2]	2
AGHRT	184	AgHort Occupational Preparation [1]	1
		Total	**17**

Second Quarter

AGGEN	151	Shop Skills	4
AGHRT	116	Green Industry Business Management [2]	5
ENVS	110	Plant Biology	5
		Total	**14**

Third Quarter

AGHRT	112	Spring Landscape Plant Materials [2]	5
AGHRT	185	AgHort Occupational Preparation [1]	1
AGHRT	201	Landscape Installation [2]	4
ENVS	210	Environmental Soil Science [2]	5
		Total	**15**

Fourth Quarter

AGHRT	115	Pruning	2
AGHRT	204	Landscape Design 1 [2]	4
AGHRT	230	Plant Problem Diagnosis [2]	5
AGHRT	232	Pest Management Project [2]	2
AGHRT	234	Bidding and Estimating	3
		Total	**16**

Fifth Quarter

AGHRT	202	Principles of Irrigation [2]	4
AGHRT	219	Soil Management and Fertility [2]	5
AGHRT	228	Arboriculture [2]	5
		Total	**14**

Sixth Quarter

AGHRT	235	Advanced Arboriculture [2]	5
AGHRT	236	Arboriculture Tools and Equipment	2
ENVS	220	Introduction to Geographic Information Systems for Natural Resources	5
NATRS	230	Global Positioning Systems	3
		Total	**15**

91 credits are required for the Associate in Applied Science

[1] AGHRT 184 and 185 are related education requirements.

[2] Related education requirement.

[3] May be substituted with CIS 105 or CIS 110. Related education requirement.

Arboriculture/Urban Forestry
Certificate

The landscape program provides a study of turf and ornamental plant materials and how they relate to landscape design, construction, installation, maintenance, bidding & estimating, irrigation and arboriculture. The curriculum is built around landscape certified competencies. At the completion of the second year, the student may receive the associate in applied sciences degree.

This program is accredited by the Professional Landcare Network (PLANET) landcarenetwork.org

The following is a typical student schedule, individual student schedules may differ slightly depending on course availability. Courses may only be offered in the quarter indicated. Outlined curriculum assumes students begin the program fall quarter and continue winter and spring quarters, with summer quarter off. It is recommended that students work closely with the program advisor when planning classes.

First Quarter

AGGEN	156	Equipment Operation and Maintenance	2
AGHRT	102	Pesticides and Fertilizer Application Equipment [2]	2
AGHRT	104	Principles of Pest Management [2]	5
AGHRT	110	Fall Landscape Plant Materials [2]	5
AGHRT	126	Computer Essentials for Environmental Sciences [3]	2

AGHRT	184	AgHort Occupational Preparation [1]	1
		Total	**17**

Second Quarter

AGGEN	151	Shop Skills	4
AGHRT	116	Green Industry Business Management [2]	5
ENVS	110	Plant Biology [2]	5
		Total	**14**

Third Quarter

AGHRT	112	Spring Landscape Plant Materials [2]	5
AGHRT	185	AgHort Occupational Preparation [1]	1
AGHRT	201	Landscape Installation [2]	4
ENVS	210	Environmental Soil Science [2]	5
		Total	**15**

46 credits are required for the Certificate

1 AGHRT 184 and 185 are related education requirements.

2 Related education requirement.

3 May be substituted with CIS 105 or CIS 110. Related education requirement.

Landscape Management
Associate in Applied Science

The landscape program provides a study of turf and ornamental plant materials and how they relate to landscape design, construction, installation, maintenance, bidding & estimating, irrigation and arboriculture. The curriculum is built around landscape certified competencies. At the completion of the second year, the student may receive the associate in applied sciences degree.

This program is accredited by the Professional Landcare Network (PLANET) landcarenetwork.org

The following is a typical student schedule, individual student schedules may differ slightly depending on course availability. Courses may only be offered in the quarter indicated. Outlined curriculum assumes students begin the program fall quarter and continue winter and spring quarters, with summer quarter off. It is recommended that students work closely with the program advisor when planning classes.

First Quarter

AGGEN	156	Equipment Operation and Maintenance	2
AGHRT	102	Pesticides and Fertilizer Application Equipment	2
AGHRT	104	Principles of Pest Management	5
AGHRT	110	Fall Landscape Plant Materials	5
AGHRT	126	Computer Essentials for Environmental Sciences [2]	2
AGHRT	184	AgHort Occupational Preparation [1]	1
		Total	**17**

Second Quarter

AGGEN	151	Shop Skills	4
AGHRT	116	Green Industry Business Management	5
ENVS	110	Plant Biology	5
		Total	**14**

Third Quarter

AGHRT	112	Spring Landscape Plant Materials	5
AGHRT	185	AgHort Occupational Preparation [1]	1
AGHRT	206	Landscape Construction	4
ENVS	210	Environmental Soil Science	5
		Total	**15**

Fourth Quarter

AGHRT	115	Pruning	2
AGHRT	204	Landscape Design 1	4
AGHRT	230	Plant Problem Diagnosis	5
AGHRT	232	Pest Management Project	2
AGHRT	234	Bidding and Estimating	3
		Total	**16**

Fifth Quarter

AGHRT	202	Principles of Irrigation	4
AGHRT	205	Landscape Design 2	4
AGHRT	219	Soil Management and Fertility	5
AGHRT	228	Arboriculture	5
		Total	**18**

Sixth Quarter

AGHRT	201	Landscape Installation	4
AGHRT	225	Weed Biology and Control	5
AGHRT	226	Turfgrass Management	5
		Total	**14**

94 credits are required for the Associate in Applied Science

1 AGHRT 184 and 185 are related education requirements.

2 Related education requirement.

3 AGHRT 126 may be substituted with CIS 105 or 110. Related education requirement.

Landscape Management
Certificate

The landscape program provides a study of turf and ornamental plant materials and how they relate to landscape design, construction, installation, maintenance, bidding & estimating, irrigation and arboriculture. The curriculum is built around landscape certified competencies. At the completion of the second year, the student may receive the associate in applied sciences degree.

This program is accredited by the Professional Landcare Network (PLANET) landcarenetwork.org

The following is a typical student schedule, individual student schedules may differ slightly depending on course availability. Courses may only be offered in the quarter indicated. Outlined curriculum assumes students begin the program fall quarter and continue winter and spring quarters, with summer quarter off. It is recommended that students work closely with the program advisor when planning classes.

First Quarter

AGGEN	156	Equipment Operation and Maintenance	2
AGHRT	102	Pesticides and Fertilizer Application Equipment	2
AGHRT	104	Principles of Pest Management [1]	5
AGHRT	110	Fall Landscape Plant Materials	5
AGHRT	126	Computer Essentials for Environmental Sciences	2
AGHRT	184	AgHort Occupational Preparation [1]	1
		Total	**17**

Second Quarter

AGGEN	151	Shop Skills	4
AGHRT	116	Green Industry Business Management [1]	5
ENVS	110	Plant Biology [1]	5
		Total	**14**

Third Quarter

AGHRT	112	Spring Landscape Plant Materials	5
AGHRT	185	AgHort Occupational Preparation [1]	1
AGHRT	206	Landscape Construction	4
ENVS	210	Environmental Soil Science [1]	5
		Total	**15**

46 credits are required for the Certificate

1 Related education requirement.

2 AGHRT 126 may be substituted with CIS 105 or 110. Related education requirement.

LEGAL ADMINISTRATION: SCC

Legal Administration
Associate in Applied Science

Legal Administration is a career path in which the individual is typically employed in a supervisory role in a law office or other legal setting (court administration, etc.). The role requires management, financial, accounting, computer information systems, human resource management and legal knowledge. Experience and/or training in administration, marketing, accounting, business management, or law is preferred, but is not a mandatory prerequisite.

If interested in pursuing a four–year degree, ask a counselor or faculty adviser about transfer articulation agreements.

First Quarter

ENGL&	101	English Composition I	5
MATH	99	Intermediate Algebra	5
MMGT	101	Principles of Management	5
		Total	**15**

Second Quarter

ACCT&	201	Prin of Accounting I	5
CMST	287	Business and Professional Communication	3
LA	218	Employment Law	3
MMGT	211	Marketing	5
		Total	**16**

Third Quarter

ACCT&	202	Prin of Accounting II	5
CATT	128	Desktop Publishing	5
MMGT	231	Human Resource Management	5
		Total	**15**

Fourth Quarter

ACCT	162	Business Tax Accounting	1
BUS	280	Human Relations in Business	5
CIS	138	Home Networking	2.5
CIS	139	Small Office Home Office Computer Basics	2.5
LA	245	Supervised Legal Work Experience [1]	3
		Total	**14**

Fifth Quarter

BUS	217	Business Statistics	5
LA	240	Special Issues Seminar	5
LA	245	Supervised Legal Work Experience	4
		Approved Business Electives	3-5
		Total	**17–19**

Sixth Quarter

CATT	138	Microsoft Excel I	2.5
CATT	139	Microsoft Excel II	2.5
LA	230	Insurance Law	3
LA	245	Supervised Legal Work Experience	5
		Total	**13**

90-92 credits are required for the Associate in Applied Science

Approved Business Electives

ACCT	141	QuickBooks	5
BT	280	Project Management for the Office	2.5
BUS	120	International Business	5
CATT	241	Microsoft Project	2.5
MMGT	181	Leadership Training-DEC	1-5
MMGT	182	Leadership Training-DEC	1-5
MMGT	183	Leadership Training-DEC	1-5
MMGT	191	Leadership Training-DEC	1-5
MMGT	192	Leadership Training-DEC	1-5
MMGT	193	Leadership Training-DEC	1-5

1 A total of 3 credits of MMGT 100 (Supervised Volunteer Experience) may be used to substitute a portion of LA 245.

2 ACCT 141 has a prerequisite of ACCT 151 or permission of instructor.

3 CATT 241 has a prerequisite of CIS 110 or equivalent experience is recommended.

LEGAL ADMINISTRATIVE ASSISTANT: SCC

Legal Administrative Assistant
Associate in Applied Science

The Legal Administrative Assistant program combines a well–balanced academic program with expert legal office instruction, giving the student the diversified training and background needed to hold a position of responsibility and importance in many areas of the legal world. This program helps raise the legal office skills of the student to a professional level, gives the student a technical background through completion of technical skill courses and an academic background, provides the student a mature understanding of professional responsibilities, and provides for minimum additional on–the–job training.

To enter the certificate program, students must pass a keyboarding test with 40 wpm. A 2.5 grade or better in each class is required for an A.A.S. degree or Certificate.

First Quarter

BT	105	Basic Grammar for Business II	5
BT	106	Computing Essentials [1]	5
BT	152	College and Career Strategies	3
		Total	**13**

Second Quarter

BT	165	Word Processing	5
BT	272	Business Correspondence	5
CATT	102	Introduction to Outlook	2.5
		Business Elective	3-5
		Total	**15.5–17.5**

Third Quarter

BT	160	Job Preparation Techniques	3
BT	231	Office Procedures	5
		Electives - Legal Administrative Assistant [2]	7.5
		Total	**15.5**

Fourth Quarter

BT	273	Business Research and Report Writing	5
LSEC	236	Legal Terminology	5
LSEC	239	Legal Formatting [3]	5
		Total	**15**

Fifth Quarter

ACCT	151	College Accounting I	5
LSEC	237	Legal Terminology	5
LSEC	244	Legal Machine Transcription [4]	5
		Total	**15**

Sixth Quarter

ACCT	141	QuickBooks [5]	5
LA	105	Washington and Idaho Court Rules	3
LSEC	233	Legal Office Practice [6]	5
LSEC	285	Legal Office Internship	3
		Total	**16**

90-92 credits are required for the Associate in Applied Science

Business Elective

BUS	102	Math Skills for Business	3
BUS	103	Basic Business Math and Electronic Calculators	5

Electives – Legal Administrative Assistant

CATT	120	Microsoft Word I	2.5
CATT	121	Microsoft Word II	2.5
CATT	122	Microsoft Access I	2.5
CATT	123	Microsoft Access II	2.5
CATT	138	Microsoft Excel I	2.5
CATT	139	Microsoft Excel II	2.5
CATT	190	Introduction to PowerPoint	2.5
CATT	191	Advanced PowerPoint	2.5
CATT	222	Advanced Microsoft Access I	2.5
CATT	223	Advanced Microsoft Access II	2.5
CATT	238	Advanced Microsoft Excel I	2.5
CATT	239	Advanced Microsoft Excel II	2.5
LA	211	Debtor-Creditor and Bankruptcy	3
LSEC	216	Legal Office Procedures	5

1 Students are placed in formatting courses according to their ability. Students who are given advanced standing in keyboarding classes will need to take business electives to meet the credits required for graduation.

2 Electives must be taken from the following list of courses: CATT 120,121,122,123,138,139,190,191,222,223,238,239,LSEC 216, or LA 211. Other unnamed courses may be substituted with approval of the program coordinator. A minimum grade of 2.5 in each class is required.

3 Prerequisites for legal assistant students taking these classes as part of the legal assistant program are keyboarding skills of 40 wpm, BT 109 and 165 or ENGL& 101 with a grade of 2.5 or higher or with permission of the program coordinator.

4 LSEC 239 with a grade of 2.5 or higher or permission of the instructor.

5 ACCT 151 or higher or permission of instructor.

6 LSEC 239 with a 2.5 grade or higher or permission of the instructor. Use of a personal computer is required for LSEC 233 in order to download and access legal software.

7 LA 110.

8 LSEC 239 with a 2.5 grade or higher or permission of the instructor. Use of a personal computer is required for LSEC 216 in order to download and access legal software.

Legal Administrative Assistant Certificate

The Legal Administrative Assistant program combines a well–balanced academic program with expert legal office instruction, giving the student the diversified training and background needed to hold a position of responsibility and importance in many areas of the legal world. This program helps raise the legal office skills of the student to a professional level, gives the student a technical background through completion of technical skill courses and an academic background, provides the student a mature understanding of professional responsibilities, and provides for minimum additional on–the–job training.

To enter the certificate program, students must pass a keyboarding test with 40 wpm. A 2.5 grade or better in each class is required for an A.A.S. degree or Certificate.

First Quarter

BT	272	Business Correspondence	5
LSEC	236	Legal Terminology	5
LSEC	239	Legal Formatting [2]	5
		Business Elective	3-5
		Total	**18–20**

Second Quarter

BT	231	Office Procedures [3]	5
LSEC	237	Legal Terminology	5
LSEC	244	Legal Machine Transcription [4]	5
		Total	**15**

Third Quarter

LA	105	Washington and Idaho Court Rules	3
LSEC	233	Legal Office Practice [5]	5
LSEC	285	Legal Office Internship	3
		Legal Administrative Assistant Elective	5
		Total	**16**

49-51 credits are required for the Certificate

Business Elective

BUS	102	Math Skills for Business	3
BUS	103	Basic Business Math and Electronic Calculators	5

Legal Administrative Assistant Elective

ACCT	141	QuickBooks	5
ACCT	151	College Accounting I	5
CATT	120	Microsoft Word I	2.5
CATT	121	Microsoft Word II	2.5
CATT	122	Microsoft Access I	2.5
CATT	123	Microsoft Access II	2.5
CATT	138	Microsoft Excel I	2.5
CATT	139	Microsoft Excel II	2.5
CATT	190	Introduction to PowerPoint	2.5
CATT	191	Advanced PowerPoint	2.5
CATT	222	Advanced Microsoft Access I	2.5
CATT	223	Advanced Microsoft Access II	2.5
CATT	238	Advanced Microsoft Excel I	2.5
CATT	239	Advanced Microsoft Excel II	2.5
LA	211	Debtor-Creditor and Bankruptcy	3
LSEC	216	Legal Office Procedures	5

1 Must be taken during the first quarter concurrent with LSEC 239.

2 Prerequisites for legal assistant students taking these classes as part of the legal assistant program are keyboarding skills of 40 wpm, BT 102, 109 and 165 or ENGL& 101 with a grade of 2.5 or better or with permission of the program coordinator.

3 This course may be substituted with any related course, a combination of courses or prior office experience approved by the program coordinator.

4 BT 235 and LSEC 239 with a grade of 2.5 or better or permission of the instructor.

5 LSEC 239 with a 2.5 grade or higher or permission of the instructor. Use of a personal computer is required for LSEC 216 in order to download and access legal software.

6 LSEC 239 with a 2.5 grade or higher or permission of the instructor. Use of a personal computer is required for LSEC 233 in order to download and access legal software.

LEGAL NURSE: SCC

Legal Nurse
Certificate

The primary role of the legal nurse consultant is to evaluate, analyze, and render informed opinions on the delivery of health care and the resulting outcomes. The legal nurse consultant practices this nursing specialty in a variety of settings, including law offices, government offices, insurance companies, risk management, or as a self–employed practitioner. The nurse serves as a liaison between the legal and health care communities. This regionally respected ABA approved program is typically awarded upon completion of 62–67 credits of required course work (depending on math requirements).

Note: A legal nurse graduate does not receive a license to practice law; thus performing legal work directly for the public or giving legal advice directly to the public constitutes the unauthorized practice of law.

Program Requirements: To enter the Legal Nurse Certificate program, students must have completed an AAS degree in nursing, and possess a current state license and at least two years' nursing experience with no more than one year since last employed in the field. Substitutions for prerequisites and program courses may be made and/or waived by the program coordinator.

Certificate Requirements: The certificate requires 10 credits of general education courses and 20 credits of basic law courses, plus 8 credits of LA 245, 24 credits of legal specialty courses and 5 credits of other courses if the student does not select from the math options portion of the general education courses. Students with at least one or more years of current legal experience under the direct supervision of an attorney may, with the approval of the program coordinator, have a part of LA 245 waived and instead substitute an equal number of additional legal specialty courses credits.

Students should begin early to meet the prerequisites for LA 120 which are LSEC 239 and a college–level computer course recommended to be selected from the BT, CIS or LSEC departments' offerings. A grade of 2.0 or higher in each class (including prerequisites) is required for this certificate.

Courses

Basic Courses	20
General Education Courses	5
Other Courses	0-5
Social Science or Humanities Course [1]	5
Specialty Courses	24
Supervised Legal Work Experience	8
Total	**62–67**

62-67 credits are required for the Certificate

Basic Courses

LA	100	Legal Careers Orientation	1
LA	102	Introduction to Legal Nursing	1
LA	105	Washington and Idaho Court Rules	3
LA	110	Legal Research and Writing [2]	5
LA	118	Instrument Drafting	3
LA	120	Law Office Computing [3]	5
LA	130	Legal Ethics	1-3
LA	135	Professional Effectiveness	1

General Education Courses

MATH&	141	Precalculus I [1]	5

Other Courses

BUS	104	Business Mathematics [4]	5

Specialty Courses [5]

BUS	204	Introduction to Law [5]	5
LA	218	Employment Law	3
LA	219	Criminal Law and Procedure	3
LA	220	Torts	3
LA	225	Trial Preparation and Procedures	3
LA	230	Insurance Law	3
LA	240	Special Issues Seminar [6]	1-10
LA	285	Legal Office Internship [7]	3

Supervised Legal Work Experience

LA	245	Supervised Legal Work Experience [8]	8

1 See program coordinator for an additional list of courses.
2 Prerequisite is ENG& 101.
3 Prerequisites are LSEC 239 and a college–level computer course recommended to be selected from the BT, CIS or LSEC departments' offerings.
4 Only needed if the student chooses BUS 104 as his/her math requirement. (Not required if MATH& 141 or higher is chosen for the math requirement.)
5 Prerequisites for all Legal Specialty Courses: LA 100, 102, 110.
6 Because each course is different, LA 240 may be repeated as frequently as desired and all credits received may be applied toward the 24 specialty credit requirement for degree.
7 Maximum of 3 credits of internship may be applied toward this degree.
8 Students must complete 8 credits.

LEGAL OFFICE SOFTWARE SPECIALIST: SCC

Legal Office Software Specialist
Certificate

This program prepares students for legal office positions where the primary duties are the operation of computer equipment; typing and proofreading manuscripts, tables, reports, correspondence, and other documents from dictating machines or rough drafts; correcting errors in existing documents; and consulting with persons initiating job requests. A minimum grade of 2.5 in each class is required for a Certificate.

First Quarter

BT	106	Computing Essentials [1]	5
BT	152	College and Career Strategies	3
BT	272	Business Correspondence	5
LSEC	236	Legal Terminology	5
		Total	**18**

Second Quarter

BT	165	Word Processing	5
BT	231	Office Procedures	5
CATT	102	Introduction to Outlook	2.5
LSEC	237	Legal Terminology	5
		Total	**17.5**

Third Quarter

BT	204	Spreadsheet Design and Analysis	5
LSEC	233	Legal Office Practice [2]	5
LSEC	239	Legal Formatting [3]	5
		Business Elective	3-5
		Total	**18–20**

Fourth Quarter

CATT	128	Desktop Publishing	5
CATT	238	Advanced Microsoft Excel I	2.5
CATT	239	Advanced Microsoft Excel II	2.5
LA	120	Law Office Computing	5
LSEC	285	Legal Office Internship	3
		Software Elective	1-3
		Total	**19–21**

72.5-76.5 credits are required for the Certificate

Business Elective

BUS	102	Math Skills for Business	3
BUS	103	Basic Business Math and Electronic Calculators	5

Software Elective

CATT	122	Microsoft Access I	2.5
CATT	123	Microsoft Access II	2.5
CATT	190	Introduction to PowerPoint	2.5
CATT	191	Advanced PowerPoint	2.5
CIS	138	Home Networking	2.5
CIS	139	Small Office Home Office Computer Basics	2.5

1 Must meet minimum standard on assessment test or 2.5 or better in BT 104 or 105.
2 LSEC 239 with a 2.5 grade or higher or permission of the instructor. Use of a personal computer is required for LSEC 216 in order to download and access legal software.
3 Prerequisites for enrollment in this class are keyboarding skills of 40 wpm; BT 165 and BT 272 or ENGL& 101 with a grade of 2.5 or higher or permission of instructor.

LEGAL RECEPTIONIST: SCC

Legal Receptionist
Certificate

This program prepares students for office positions in which the primary duties are performing general legal office work; greeting, scheduling and routing legal clients; and answering the telephone. After completing this program, students may choose to take additional courses for an advanced certificate or degree in the Legal Administrative Assistant program. A minimum grade of 2.5 in each class is required for a certificate.

First Quarter

BT	106	Computing Essentials	5
BT	152	College and Career Strategies	3
BT	272	Business Correspondence	5
LSEC	236	Legal Terminology	5
		Total	**18**

Second Quarter

BT	165	Word Processing	5
CATT	102	Introduction to Outlook	2.5
LSEC	237	Legal Terminology	5
LSEC	239	Legal Formatting [1]	5
		Total	**17.5**

Third Quarter

BT	231	Office Procedures [2]	5
LSEC	233	Legal Office Practice [3]	5
LSEC	285	Legal Office Internship	3
		Business Elective	3-5
		Total	**16–18**

51.5-53.5 credits are required for the Certificate

Business Elective

BUS	102	Math Skills for Business	3
BUS	103	Basic Business Math and Electronic Calculators	5

1 Prerequisites for enrollment in this class are keyboarding speed of 40 wpm and BT 165 and 272 with a grade of 2.5 or better, or permission of the program coordinator.
2 This course may be substituted with any related course, a combination of courses, or prior office experience approved by the program coordinator.
3 BT 272 and LSEC 239 with a 2.5 grade or higher or permission of instructor.

LIBRARY AND INFORMATION SERVICES: SFCC

Library and Information Services
Associate in Applied Science

The Library and Information Services program offers an online AAS degree and an online certificate for library support staff and paraprofessionals who wish to start their career as a library staff member or who wish to further their career development.

Students are trained to work in all areas of library service. The program gives students exposure to a broad range of theory and practice common in most libraries. The program at SFCC follows the American Library Association guidelines for library support staff.

Students can enter the program in any quarter; however, the recommended, but not required course sequence begins fall quarter in order to complete the program as listed in the career planning guide.

Library science classes are online classes. Electives for the AAS degree program can be taken online or in a traditional classroom. Students engage in online learning and are required to take work experience/internship classes to reinforce hands–on training. The LMLIB 288 COOP Education Work Experience class is a critical component of the degree program as it provides hand on training to reinforce classroom instruction. This class may be taken more than once during fall, winter or spring quarter. Very few of the library science classes require students to purchase textbooks.

The three quarter online certificate program targets persons interested in working in K–12 library settings who do not wish to pursue an AAS degree. Graduates of this program may gain employment as library support staff or paraprofessionals in libraries.

The AAS Educational Paraprofessional School Library Media Technician Emphasis Degree: Students in this degree program can seek employment as paraprofessionals in the classroom or as K–12 library staff. Consult the **Education Paraprofessional, Special Education** career planning guide for more information.

First Quarter

LMLIB	100	Introduction to Library Organizations and Careers	3
LMLIB	115	Introduction to Library Organizational Systems	5
		Communication Skills Electives [3]	5
		Total	**13**

Second Quarter

LMLIB	116	Introduction to Circulation Systems and Services	5
LMLIB	125	School Libraries and Media Centers	5

		Approved Electives [1]	3
		Computer Skills Electives [2]	2
		Total	**15**

Third Quarter

LMLIB	117	Access and Outreach Services	5
LMLIB	135	Children's Literature and Library Services	5
		Communication Skills Electives [3]	5
		Computer Skills Electives [2]	2
		Total	**17**

Fourth Quarter

EDUC&	115	Child Development [7]	5
		Computation Skills Electives [4]	5
		Computer Skills Electives [2]	3
		Total	**13**

Fifth Quarter

LMLIB	126	Library Technology and Services for Educational Support	3
LMLIB	220	Technical Services II: Cataloging	5
		Approved Electives [1]	3
		Leadership Skills/Human Relations Electives	5
		Total	**16**

Sixth Quarter

LMLIB	222	Reference and Information Services	5
LMLIB	224	Research Topics and Projects in Library Service [5]	3
LMLIB	281	Library Paraprofessional Practicum	3
		Approved Electives [1]	5
		Total	**16**

90 credits are required for the Associate in Applied Science

Communication Skills Electives

BT	107	Business Communications	5
BT	272	Business Correspondence	5
CMST&	101	Introduction to Communication	5
ENGL&	101	English Composition I	5
ENGL&	102	Composition II	5
ENGL&	235	Technical Writing	5

Computation Skills Electives

ACCT	140	QuickBooks	5
BUS	103	Basic Business Math and Electronic Calculators	5
BUS	123	Practical Business Math Applications	5
MATH&	107	Math in Society	5

Computer Skills Electives

BT	101	Keyboarding	5
CAPPS	102	Introduction to Office	1
CAPPS	141	Word I	2
CAPPS	151	Excel I	2
CAPPS	161	Access I	2
CAPPS	171	PowerPoint I	2
CAPPS	180	Outlook	2
GENST	108	Learning for the 21st Century	5
IS	120	Business Computer Use	3
IS	160	Internet Fundamentals	1
MMGT	125	Social Media Marketing	5

Leadership Skills/Human Relations Electives

BUS	280	Human Relations in Business	5
CMST&	210	Interpersonal Communication	5
HS	136	Improving Interpersonal Communication	5
MMGT	101	Principles of Management	5
MMGT	231	Human Resource Management	5
PSYC&	100	General Psychology	5
SOC&	101	Intro to Sociology	5

1 Students may select elective courses from an Approved Electives list in order to reach the minimum required program credits. Approved electives include courses in ASL, BT, CAPPS, ECED, EDUC, ENGL& 111, HLTH 174, IS, LMLIB, MMGT 223, SPAN. See department for complete list.

2 Select courses from Computer Skills Electives for a total of 7 credits.

3 Select two courses for a total of 10 credits in Communication Skills.

4 Select one course for a total of 5 credits in Computation Skills. Any online MATH course may be substituted.

5 Or students may substitute BT 160 Job Preparation Techniques. LMLIB 224 requires instructor permission targeting students currently working in libraries. BT 160 targets students not currently working in libraries.

6 Students are required to take 3 credits of LMLIB 281 by the 6th quarter or in any other quarter with instructor permission.

7 Students can substitute EDUC& 204 Exceptional Child OR PSYC& 200 Lifespan Psychology.

Library and Information Services Certificate

The Library and Information Services program offers an online AAS degree and an online certificate for library support staff and paraprofessionals who wish to start their career as a library staff member or who wish to further their career development.

Students are trained to work in all areas of library service. The program gives students exposure to a broad range of theory and practice common in most libraries. The program at SFCC follows the American Library Association guidelines for library support staff.

Students can enter the program in any quarter; however, the recommended, but not required course sequence begins fall quarter in order to complete the program as listed in the career planning guide.

Library science classes are online classes. Electives for the AAS degree program can be taken online or in a traditional classroom. Students engage in online learning and are required to take work experience/internship classes to reinforce hands–on training. The LMLIB 288 COOP Education Work Experience class is a critical component of the degree program as it provides hand on training to reinforce classroom instruction. This class may be taken more than once during fall, winter or spring quarter. Very few of the library science classes require students to purchase textbooks.

The three quarter online certificate program targets persons interested in working in K–12 library settings who do not wish to pursue an AAS degree. Graduates of this program may gain employment as library support staff or paraprofessionals in libraries.

The AAS Educational Paraprofessional School Library Media Technician Emphasis Degree: Students in this degree program can seek employment as paraprofessionals in the classroom or as K–12 library staff. Consult the **Education Paraprofessional, Special Education** career planning guide for more information.

First Quarter

EDUC&	204	Exceptional Child [1]	5
LMLIB	100	Introduction to Library Organizations and Careers	3

LMLIB	115	Introduction to Library Organizational Systems	5
		Total	**13**

Second Quarter

LMLIB	125	School Libraries and Media Centers	5
LMLIB	126	Library Technology and Services for Educational Support	3
LMLIB	220	Technical Services II: Cataloging [3]	5
		Total	**13**

Third Quarter

EDUC	252	Social/Emotional Development [2]	5
LMLIB	135	Children's Literature and Library Services	5
LMLIB	224	Research Topics and Projects in Library Service [4]	3
LMLIB	281	Library Paraprofessional Practicum	3
		Total	**16**

42 credits are required for the Certificate

1 EDUC& 204 may be substituted with EDUC& 202.

2 EDUC 252 or any library science (LMLIB) course, CAPPS course or courses approved by instructor, may be taken for a total of 5 credits.

3 LMLIB 220 may be substituted with LMLIB 116.

4 Or students may substitute BT 160 Job Preparation Techniques. LMLIB 224 requires instructor permission targeting students currently working in libraries. BT 160 targets students not currently working in libraries.

MACHINIST - CNC TECHNOLOGY: SCC

Industrial and Manufacturing Technology Certificate

This program focuses on the knowledge, skills, and abilities needed to perform the typical duties of Precision Machining and Quality Assurance in the manufacturing industry. The program will prepare students to work with quality control systems management principles, applicable technical standards, testing inspection and reporting procedures; as well as preparing the student to work in small machine shops or manufacturing firms that produce durable goods such as metalworking, lumber, industrial machinery, aircraft parts, equipment, and components for manufactured products.

The Industrial Manufacturing Technology Certificate is designed to give students a well–rounded basic understanding of industrial and manufacturing technologies, enabling them to enter a variety of industries within the Tri–County area.

First Quarter

APLED	110	Applied Comprehensive Communication [1]	5
FLPT	104	Hydraulics/Pneumatic Fundamentals	6
MACH	106	Blueprint Reading	7
		Total	**18**

Second Quarter

APLED	125	Employment Preparation [1]	3
MACH	107	Precision Measurement and Tools	3
MACH	247	CNC Theory	5
MACH	248	CNC Lab	7
		Total	**18**

Third Quarter

APLED	112	Applied Mathematics [1]	3
ELMT	102	Electrical Basics	6
WELD	104	Welding and Fabrication Basics	5
		Total	**14**

50 credits are required for the Certificate

1 This related education requirement may be met by any course or combination of courses approved by the department dean.

Machinist/CNC Technology Certificate

This four–quarter evening Machinist/CNC Certificate program prepares students for employment in the machining industry. Basic manual machine operation with emphasis on the safe operation of a variety of machine tools is an integral component of this program. Students receive intensive training in both theory and application of machining skills with introduction to CAD/CAM.

Each required course for graduation must be completed with a grade of 2.0 or higher before proceeding to the next quarter.

First Quarter

APLED	112	Applied Mathematics [1]	5
MACH	140	Blueprint 1	2
MACH	142	Shop I	8
MACH	143	Machine Tools	2
		Total	**17**

Second Quarter

APLED	113	Introduction to Computers for Technology [2]	2
MACH	141	Machine Theory I	2
MACH	150	Blueprint II	2
MACH	152	Shop II	8
		Total	**14**

Third Quarter

MACH	160	Blueprint III	2
MACH	162	Shop III	8
MACH	211	CNC Theory I	2
		Total	**12**

Fourth Quarter

APLED	125	Employment Preparation [1]	3
MACH	151	Machine Theory II	2
MACH	212	Shop IV	8
MACH	221	CNC Theory II	2
		Total	**15**

58 credits are required for the Certificate

1 This related education requirement may be met by any course or combination of courses approved by the department dean.

2 APLED 113 may be substituted with CIS 105.

Machinist/CNC Technology Associate in Applied Science

The Machinist/CNC Technology program is designed to provide students with the skills necessary to gain employment in the manufacturing industry. The first year of the program will focus on skills used in a modern machine shop: machine shop math, blueprint reading, and conventional machine tool theory and lab. The last year offers advanced conventional machining and specialized training in CNC theory with introduction to CAD/CAM and procedures in quality control.

Each required course for graduation must be completed with a grade of 2.0 or higher before proceeding to the next quarter.

First Quarter

APLED	112	Applied Mathematics [1]	5
MACH	140	Blueprint 1	2
MACH	141	Machine Theory I	2
MACH	142	Shop I	10
MACH	143	Machine Tools	2
		Total	**21**

Second Quarter

CIS	105	Computer Fundamentals for Vocations I [3]	2
MACH	150	Blueprint II	2
MACH	151	Machine Theory II	2
MACH	152	Shop II	10
MACH	153	Shop Math	2
		Total	**18**

Third Quarter

APLED	121	Applied Written Communication [1]	4
MACH	160	Blueprint III	2
MACH	161	Machine Theory III	2
MACH	162	Shop III	10
MACH	163	Materials Science	2
		Total	**20**

Fourth Quarter

APLED	123	Leadership Skills for Business and Industry [1]	3
MACH	210	Blueprint IV	2
MACH	211	CNC Theory I	2
MACH	212	Shop IV	10
MACH	213	GD&T	2
WELD	154	CNC Welding	1
		Total	**20**

Fifth Quarter

APLED	125	Employment Preparation [1]	3
MACH	220	Blueprint V	2
MACH	221	CNC Theory II	2
MACH	222	Shop V	10
MACH	223	Quality Control	2
		Total	**19**

Sixth Quarter

MACH	230	Blueprint VI	2
MACH	231	CNC Theory III	2
MACH	232	Shop VI	10
MACH	233	Manufacturing Economics	2
		Total	**16**

Seventh Quarter

		Optional Summer Machinist Course [2]	0-15
		Total	**0–15**

114-129 credits are required for the Associate in Applied Science

1 This related education requirement may be met by any course or combination of courses approved by the department dean.

2 MACH 263 for Machinist/CNC Technology AAS degree students desiring to receive additional training may be taken during the summer quarter either after the third or sixth quarter. Instructor permission required. Completion of this course will entitle the student to a certificate of completion issued by the dean of instruction for technical education.

3 CIS 105 may be substituted with APLED 113.

MANAGEMENT: SCC

Management
Associate in Applied Science

The challenge of management! It takes a special kind of person with a special knack to be a good business manager. Over 70 percent of the workforce in Spokane is employed in the fields of business, health care and marketing. This creates a big demand for entry–level managers and supervisors.

The management program at SCC is designed to prepare students for these positions. The curriculum incorporates individual hands–on experiences while learning the basic principles of business management.

Courses in the AAS degree program include management, business law, project management, computer applications and human relations. In addition to the academic courses, there is an opportunity for team work and leadership experience through participation in College DECA, an international management and marketing organization.

All students graduating from the AAS degree program must have a minimum grade average of 2.0 on each of the required management, accounting, economic, and business courses and a cumulative minimum grade point average on all required courses in the program.

The Management Certificate at SCC is designed to provide students with business, management, and accounting basics with an emphasis on project management skills. Students are prepared to understand the concepts and methods associated with project initiation, planning, execution, monitoring and controlling, and closing phases of project management. Students will utilize computer applications to manage and control project tasks, communication, costs, scheduling, and quality. In addition, this program includes leadership and teambuilding development so vital for successful project management in the workplace. Students can expect to increase job skills for entry–level employment as well as career advancement. All students graduating from the certificate program must have a minimum grade average of 2.0 on each of the required courses in the program.

Courses

Group A-AAS Degree-Management Core	80
Group B-AAS Degree Management Electives	5
Group C-AAS Degree Written Communications Elective	5
Total	**90**

90 credits are required for the Associate in Applied Science

Group A–AAS Degree–Management Core

ACCT	151	College Accounting I	5
BT	152	College and Career Strategies	3
BUS&	101	Intro to Business	5
BUS	103	Basic Business Math and Electronic Calculators	5
BUS	104	Business Mathematics	5
BUS&	201	Business Law	5
BUS	280	Human Relations in Business	5
CATT	138	Microsoft Excel I	2.5
CATT	139	Microsoft Excel II	2.5
CATT	241	Microsoft Project	2.5
ECON	100	Fundamentals of Economics	5
ENGL&	101	English Composition I	5
MMGT	100	Supervised Volunteer Experience	1
MMGT	101	Principles of Management	5

MMGT	181	Leadership Training-DEC	1
MMGT	211	Marketing	5
MMGT	231	Human Resource Management	5
MMGT	243	Fundamentals of Project Management	5
MMGT	244	Introduction to Lean Six Sigma	2.5
MMGT	256	Lean Leadership	5

Group B–AAS Degree Management Electives

BUS	120	International Business	5
BUS	140	International Marketing	3
BUS	204	Introduction to Law	5
BUS	284	Special Business Topics	1-5
BUS	285	Special Business Topics	1-5
BUS	286	Special Business Topics	1-5
CATT	120	Microsoft Word I	2.5
CMST&	101	Introduction to Communication	5
MMGT	125	Social Media Marketing	5
MMGT	205	Small Business Planning	5
MMGT	212	Retailing	5
MMGT	218	Fundamentals of Advertising	5
MMGT	223	Customer Service	3
MMGT	288	Cooperative Education Work Experience (No Seminar)	1-5

Group C–AAS Degree Written Communications Elective

BT	272	Business Correspondence	5
BT	274	Business Writing for the Web	5
ENGL&	102	Composition II	5
ENGL&	235	Technical Writing	5

1 ACCT 151 may be substituted with ACCT& 201.

2 BUS 103 or proficiency test is required.

3 ECON 100 may be substituted with a higher level ECON course.

4 ENGL& 101 may be substituted with a course from the Group–C–AAS Degree Written Communication Elective.

5 MMGT 181 may be substituted with MMGT 182,183,191,192, or 193.

6 Previous or concurrent enrollment in MMGT 243 and CATT 241 is required.

7 MMGT 288 may be substituted with ACCT 288. 1 credit=55 hours of work experience.

8 BT 105 or permission of instructor.

Management Certificate

The challenge of management! It takes a special kind of person with a special knack to be a good business manager. Over 70 percent of the workforce in Spokane is employed in the fields of business, health care and marketing. This creates a big demand for entry–level managers and supervisors.

The management program at SCC is designed to prepare students for these positions. The curriculum incorporates individual hands–on experiences while learning the basic principles of business management.

Courses in the AAS degree program include management, business law, project management, computer applications and human relations. In addition to the academic courses, there is an opportunity for team work and leadership experience through participation in College DECA, an international management and marketing organization.

All students graduating from the AAS degree program must have a minimum grade average of 2.0 on each of the required management, accounting, economic, and business courses and a cumulative minimum grade point average on all required courses in the program.

The Management Certificate at SCC is designed to provide students with business, management, and accounting basics with an emphasis on project management skills. Students are prepared to understand the concepts and methods associated with project initiation, planning, execution, monitoring and controlling, and closing phases of project management. Students will utilize computer applications to manage and control project tasks, communication, costs, scheduling, and quality. In addition, this program includes leadership and teambuilding development so vital for successful project management in the workplace. Students can expect to increase job skills for entry–level employment as well as career advancement. All students graduating from the certificate program must have a minimum grade average of 2.0 on each of the required courses in the program.

First Quarter

ACCT	151	College Accounting I [1]	5
BUS&	101	Intro to Business	5
BUS	104	Business Mathematics [2]	5
		Total	**15**

Second Quarter

CATT	138	Microsoft Excel I	2.5
CATT	139	Microsoft Excel II	2.5
CATT	241	Microsoft Project	2.5
MMGT	243	Fundamentals of Project Management	5
MMGT	244	Introduction to Lean Six Sigma	2.5
		Total	**15**

Third Quarter

ENGL&	101	English Composition I [3]	5
MMGT	101	Principles of Management	5
MMGT	256	Lean Leadership [4]	5
		Total	**15**

45 credits are required for the Certificate

1 ACCT 151 may be substituted with ACCT& 201.

2 BUS 103 or proficiency test is required.

3 ENGL& 101 may be substituted with a courses from the Group–C–AAS Degree Written Communication Elective.

4 Previous or concurrent enrollment in MMGT 243 and CATT 241 is required.

MANICURIST: SCC

Manicurist Certificate

Students enrolling in the Manicurist Certificate program will receive training in all aspects of nail care. Areas of emphasis include the application and removal of artificial nails and nail tips; various manicure and pedicure treatments; hand and feet massage techniques; and all safety and sanitation measures involved with these processes. Upon successful completion of the coursework, the student will be prepared to take the Washington State Examination in Manicuring.

Program Requirements:

- Students must maintain a 2.1 in all professional classes to complete the program and pass exit exams with a minimum score of 2.5 to be prepared to take the Washington state licensing exam for manicurist.
- Upon successful completion of the coursework, the student will be prepared to take the Washington State licensing exam for manicurist.

Physical Requirements:

- Normal or corrected vision

- Must be able to work with arms at shoulder level for extended periods of time
- Must be able to sit for extended periods of time.

First Quarter

COS	113	Manicuring Concepts I	4
COS	114	Manicuring Applications I [1]	10
COS	119	Advanced Manicuring Concepts	1
EMS	120	Basic First Aid in the Workplace	2
		Total	**17**

Second Quarter

COS	115	Manicuring Concepts II	4
COS	116	Manicuring Applications II [1]	10
COS	129	Advanced Manicuring Applications	2
		Total	**16**

33 credits are required for the Certificate

1 COS 114 and 116 may be substituted with COS 288 with the permission of the instructor. Washington State licensure requirements allow up to 10% of the student academic instruction to be met at an off campus site.

MARKETING: SCC

Marketing
Associate in Applied Science

The Marketing program is designed for students who want to specialize in fields involved with the distribution of goods and services from producer to consumer. Students take core business courses followed by marketing specialty courses such as marketing, retailing, advertising and international business. Students are also required to gain work experience as part of the program. There is opportunity for teamwork and leadership experience through participation in college DECA, international management and marketing organization.

All students graduating from this program must have a minimum grade of 2.0 on each of the management; accounting; economics; and general business required courses. Students must also have a 2.0 cumulative grade point average on all required courses in the program.

Courses

	Marketing Electives	5
	Marketing Required	85
	Total	**90**

90 credits are required for the Associate in Applied Science

Marketing Electives

BT	274	Business Writing for the Web	5
BUS&	201	Business Law	5
BUS	284	Special Business Topics	1-5
CATT	241	Microsoft Project	2.5
MMGT	181	Leadership Training-DEC	1
MMGT	182	Leadership Training-DEC	1
MMGT	183	Leadership Training-DEC	1
MMGT	205	Small Business Planning	5
MMGT	288	Cooperative Education Work Experience (No Seminar)	1

Marketing Required

ACCT	151	College Accounting I	5
BT	152	College and Career Strategies	3
BUS&	101	Intro to Business	5
BUS	103	Basic Business Math and Electronic Calculators	5
BUS	140	International Marketing	3
BUS	280	Human Relations in Business	5
CATT	120	Microsoft Word I	2.5
CATT	138	Microsoft Excel I	2.5
ECON	100	Fundamentals of Economics	5
ENGL&	101	English Composition I	5
MMGT	100	Supervised Volunteer Experience	1-3
MMGT	101	Principles of Management	5
MMGT	125	Social Media Marketing	5
MMGT	211	Marketing	5
MMGT	212	Retailing	5
MMGT	218	Fundamentals of Advertising	5
MMGT	223	Customer Service	3
MMGT	225	Content, Social and Digital Marketing	5
MMGT	243	Fundamentals of Project Management	5
MMGT	250	Professional Sales	5

1 ACCT 151 may be substituted with ACCT& 201.

2 ECON 100 may be substituted with a higher level ECON course.

3 MMGT 181 may be substituted with MMGT 191.

4 MMGT 182 may be substituted with MMGT 192.

5 MMGT 183 may be substituted with MMGT 193.

MEDICAL ASSISTANT: SCC

Medical Assistant
Associate in Applied Science

The Medical Assistant is an Allied Health professional who assists physicians and other health care providers in their offices or other medical settings. In accordance with respective state laws, they perform a broad range of administrative and clinical duties. In the Medical Assistant program at Spokane Community College, students learn about the administrative duties of scheduling and receiving patients, preparing and maintaining medical records, performing basic secretarial skills and medical transcription, handling telephone calls, writing correspondence, serving as a liaison between the physician and other individuals, and managing practice finances. The clinical phase of the program is taught through intense training and hands–on application. Students learn to perform clinical duties, including asepsis and infection control, taking patient histories and vital signs, first aid and CPR, preparing patients for procedures, assisting the physician with examinations and treatments, collecting and processing specimens, performing selected diagnostic tests, and preparing and administering medications as directed by the physician. In the 4th quarter the students will have a 198 hour unpaid clinical externship in a medical office working directly with providers.

Formats for this program are offered as on–campus or online/hybrid.

The Medical Assistant program does not accept advanced placement, transfer credits, or credit for experiential learning. All MA credits required for the certificate must be earned at Spokane Community College.

Admission Requirements:
- Computer Skills
- CIS 105 or equivalent
- ENGL& 101
- Appropriate ALEKS PPL math score or completion of Math 91 with a 2.0 or better
- Appropriate English placement

After successful completion of the admission requirements, please contact the SCC registration office at 533–8860.

A 2.0 grade or better is needed in all required classes before proceeding to the next quarter and before a certificate is awarded. The student may complete requirements in Medical Assistant and receive a certificate or complete the professional requirements plus liberal arts requirements and receive an associate in applied science degree. The student may enroll in liberal arts either preceding or following the professional curriculum.

First Quarter

HED	108	Human Anatomy	5
MA	101	Administrative Medical Assistant I	5
MA	102	Clinical Medical Assistant I	3
MA	107	Basic Medical Assisting	3
		Total	**16**

Second Quarter

HED	125	Medical Terminology	5
MA	111	Administrative Medical Assistant II	3
MA	112	Clinical Medical Assistant II - A	3
MA	113	Clinical Medical Assistant II - B	2
PHARM	115	Mathematics for Pharmacy Technicians	5
		Total	**18**

Third Quarter

HED	126	Introduction to Study of Disease	5
HIM	120	Medical Assistant Coding and Reimbursement	3
MA	121	Administrative Medical Assistant III	2
MA	122	Clinical Medical Assistant III - A	2
MA	123	Clinical Medical Assistant III - B	3
MA	125	Ambulatory Care Setting Pharmacology	5
		Total	**20**

Fourth Quarter

MA	131	Administrative Medical Assistant IV	3
MA	132	Clinical Medical Assistant IV - A	3
MA	133	Clinical Medical Assistant IV - B	2
MA	141	Medical Assistant Seminar	1
MA	142	Medical Assistant Externship	6
		Total	**15**

Fifth Quarter

MMGT	101	Principles of Management [1]	5
PSYC&	100	General Psychology [1]	5
SOC&	101	Intro to Sociology [2]	5
		Total	**15**

Sixth Quarter

BUS	280	Human Relations in Business [1]	5
CMST	227	Intercultural Communication [1]	5
ENGL&	102	Composition II [1]	5
		Total	**15**

Seventh Quarter

ACCT&	201	Prin of Accounting I [1]	5
CMST&	210	Interpersonal Communication [1]	5
PSYC&	200	Lifespan Psychology [3]	5
		Total	**15**

114 credits are required for the Associate in Applied Science

1 Departmentally approved elective numbered 100 or above may be substituted for courses required for the AAS degree.

2 Departmentally approved elective numbered 100 or above may be substituted for courses required for the AAS degree; may be substituted with SOC& 201.

3 Departmentally approved elective numbered 100 or above may be substituted for courses required for the AAS degree; may be substituted with PSYC 210.

Medical Assistant
Certificate

The Medical Assistant is an Allied Health professional who assists physicians and other health care providers in their offices or other medical settings. In accordance with respective state laws, they perform a broad range of administrative and clinical duties. In the Medical Assistant program at Spokane Community College, students learn about the administrative duties of scheduling and receiving patients, preparing and maintaining medical records, performing basic secretarial skills and medical transcription, handling telephone calls, writing correspondence, serving as a liaison between the physician and other individuals, and managing practice finances. The clinical phase of the program is taught through intense training and hands–on application. Students learn to perform clinical duties, including asepsis and infection control, taking patient histories and vital signs, first aid and CPR, preparing patients for procedures, assisting the physician with examinations and treatments, collecting and processing specimens, performing selected diagnostic tests, and preparing and administering medications as directed by the physician. In the 4th quarter the students will have a 198 hour unpaid clinical externship in a medical office working directly with providers.

Formats for this program are offered as on–campus or online/hybrid.

The Spokane Community College Medical Assistant Certificate is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of Medical Assisting Education Review Board (MAERB).

Commission on Accreditation of Allied Health Education Programs, 25400 US Highway 19 N Suite 158, Clearwater, FL 33763, 1–(727)–210–2350

The Medical Assistant program does not accept advanced placement, transfer credits, or credit for experiential learning. All MA credits required for the certificate must be earned at Spokane Community College.

Admission Requirements:

- Computer Skills
- CIS 105 or equivalent
- ENGL& 101
- Appropriate ALEKS PPL math score or completion of Math 91 with a 2.0 or better
- Appropriate English placement

After successful completion of the admission requirements, please contact the SCC registration office at 533–8860.

A 2.0 grade or better is needed in all required classes before proceeding to the next quarter and before a certificate is awarded. The student may complete requirements in Medical Assistant and receive a certificate or complete the professional requirements plus liberal arts requirements and receive an associate in applied science degree. The student may enroll in liberal arts either preceding or following the professional curriculum.

First Quarter

HED	108	Human Anatomy	5
MA	101	Administrative Medical Assistant I	5
MA	102	Clinical Medical Assistant I	3

MA	107	Basic Medical Assisting	3
		Total	**16**

Second Quarter

HED	125	Medical Terminology	5
MA	111	Administrative Medical Assistant II	3
MA	112	Clinical Medical Assistant II - A	3
MA	113	Clinical Medical Assistant II - B	2
PHARM	115	Mathematics for Pharmacy Technicians	5
		Total	**18**

Third Quarter

HED	126	Introduction to Study of Disease	5
HIM	120	Medical Assistant Coding and Reimbursement	3
MA	121	Administrative Medical Assistant III	2
MA	122	Clinical Medical Assistant III - A	2
MA	123	Clinical Medical Assistant III - B	3
MA	125	Ambulatory Care Setting Pharmacology	5
		Total	**20**

Fourth Quarter

MA	131	Administrative Medical Assistant IV	3
MA	132	Clinical Medical Assistant IV - A	3
MA	133	Clinical Medical Assistant IV - B	2
MA	141	Medical Assistant Seminar	1
MA	142	Medical Assistant Externship	6
		Total	**15**

69 credits are required for the Certificate

MEDICAL OFFICE BILLING AND CODING SPECIALIST: SCC

Medical Office Billing and Coding Specialist
Associate in Applied Science

This program prepares individuals for employment in medical offices as medical office receptionists, coders and insurance billers. Spokane is a major regional center for medical care offering maximum opportunities for employment. Positions are available in medical clinics, medical insurance companies and private physicians' offices.

A 2.5 GPA or higher in each class is required for successful completion.

Admission Requirements:

Keyboarding Skills: 40 wpm with six or fewer errors completed at the SCC testing center or successful completion in BT 101 and 102.

First Quarter

BT	105	Basic Grammar for Business II	5
BT	106	Computing Essentials	5
BT	152	College and Career Strategies	3
CATT	102	Introduction to Outlook	2.5
		Total	**15.5**

Second Quarter

BT	231	Office Procedures	5
HED	104	Medical Terminology and Anatomy	5
MSEC	108	Medical Office Computing	5
		Total	**15**

Third Quarter

BUS	103	Basic Business Math and Electronic Calculators	5
HED	105	Medical Terminology and Anatomy [2]	5
MSEC	123	Medical Office Coding [5]	5
		Total	**15**

Fourth Quarter

MSEC	124	Medical Office Insurance Billing	5
MSEC	125	Medical Office Bookkeeping	4
MSEC	223	Medical Office Coding II [7]	5
		Total	**14**

Fifth Quarter

CATT	138	Microsoft Excel I	2.5
HIM	215	ICD-10 Procedural Coding	4
MSEC	120	Human Relations/Communications for Medical Office Personnel	5
MSEC	221	Clinical Coding	5
		Total	**16.5**

Sixth Quarter

BT	160	Job Preparation Techniques	3
CATT	139	Microsoft Excel II	2.5
MSEC	225	Certified Professional Coder (CPC) Exam Preparation	5
MSEC	284	Medical Internship Seminar	1
MSEC	286	Medical Insurance Billing Internship [8]	3
		Total	**14.5**

90.5 credits are required for the Associate in Applied Science

1 BT 105, keyboarding proficiency.

2 HED 104.

3 BUS 103 may be substituted with BT 128.

4 BT 231 or concurrent enrollment with BT 231.

5 HED 104, 105 or concurrent enrollment with 105.

6 Concurrent enrollment with MSEC 125.

7 MSEC 123.

8 All of the courses listed above must be completed before enrolling in an internship. Cooperative education courses may be substituted.

MEDICAL OFFICE RECEPTIONIST: SCC

Medical Office Receptionist
Certificate

This program prepares individuals for employment in medical offices as medical office receptionists. Spokane is a major regional center for medical care, offering many opportunities for employment. Positions are available in medical clinics, medical insurance companies and private physicians' offices.

Admission Requirements:

Keyboarding Skills: 40 wpm with six or fewer errors completed at the SCC testing center or successful completion in BT 106, current first aid/CPR card or successful completion of EMS 120 or equivalent.

First Quarter

BT	105	Basic Grammar for Business II	5
BT	106	Computing Essentials	5
BT	152	College and Career Strategies	3
CATT	102	Introduction to Outlook	2.5
		Total	**15.5**

Second Quarter

BT	127	Human Relations and Professional Development	3
BT	196	Skillbuilding	1
HED	104	Medical Terminology and Anatomy	5

MSEC	108	Medical Office Computing	5
		Total	**14**

Third Quarter

BT	231	Office Procedures [1]	5
HED	105	Medical Terminology and Anatomy [2]	5
MSEC	120	Human Relations/Communications for Medical Office Personnel	5
MSEC	121	Medical Office Reception [3]	5
		Total	**20**

49.5 credits are required for the Certificate

1 BT 105, keyboarding proficiency

2 HED 104.

3 BT 231 or concurrent with BT 231

MEDICAL OFFICE SPECIALIST: SCC

Medical Office Specialist
Associate in Applied Science

This program prepares individuals for employment in medical offices. Spokane is a major regional center for medical care offering many opportunities for employment. Positions are available in medical clinics, medical insurance companies and private physicians' offices.

Admission Requirements:

Keyboarding Skills: 40 wpm with six or fewer errors completed at the SCC testing center or successful completion in BT 106, current first aid/CPR card or successful completion of EMS 120 or equivalent.

Students must complete all classes with a 2.0 grade or higher.

First Quarter

BT	105	Basic Grammar for Business II	5
BT	106	Computing Essentials	5
BT	152	College and Career Strategies	3
CATT	102	Introduction to Outlook	2.5
		Total	**15.5**

Second Quarter

BT	127	Human Relations and Professional Development	3
BT	196	Skillbuilding	1
HED	104	Medical Terminology and Anatomy	5
MSEC	108	Medical Office Computing	5
		Total	**14**

Third Quarter

BT	231	Office Procedures [2]	5
HED	105	Medical Terminology and Anatomy [1]	5
MSEC	120	Human Relations/Communications for Medical Office Personnel	5
MSEC	121	Medical Office Reception	5
		Total	**20**

Fourth Quarter

ACCT	151	College Accounting I	5
BUS	103	Basic Business Math and Electronic Calculators [3]	5
MSEC	123	Medical Office Coding [4]	5
		Total	**15**

Fifth Quarter

MSEC	124	Medical Office Insurance Billing [8]	5
MSEC	125	Medical Office Bookkeeping	4
MSEC	223	Medical Office Coding II [6]	5
MSEC	240	Healthcare Documentation/ Transcription [7]	5
		Total	**19**

Sixth Quarter

BT	160	Job Preparation Techniques	3
BT	260	Administrative Office Management	5
MSEC	284	Medical Internship Seminar	1
MSEC	287	Medical Specialist Internship [10]	3
		Total	**12**

95.5 credits are required for the Associate in Applied Science

1 HED 104

2 BT 105, keyboarding proficiency

3 BUS 103 may be substituted with BT 128.

4 HED 104, 105 or concurrent enrollment with 105.

5 BT 231 or concurrent with BT 231.

6 MSEC 123

7 Typing test 40 wpm

8 Concurrent enrollment with MSEC 125

9 ACCT 151, BUS 103 and concurrent enrollment with MSEC 124

10 All of the courses listed above must be completed before enrolling in an internship. Cooperative education may be substituted.

MUSIC: SFCC

Music
Associate in Fine Arts

The Associate in Fine Arts (AFA) in Music offers a foundation for students pursuing a four year degree in Music, either a Bachelor of Arts (BA) or Bachelor of Music (BM). To complete the AFA, students complete 60 credits of Music and 40 credits of General Education Requirements. Courses satisfying General Education Requirements must include ENGL& 101 (5 credits); MATH& 107 (5 credits); Social Science (5 credits), Non Lab Science (5 credits); and Lab Science (5 credits). The additional 15 General Education Requirements credits will be determined based on your transfer destination and in consultation with an academic adviser in Music.

With the AFA, students transfer with a minimum of 90 credits to colleges and universities SFCC maintains articulation agreements with. University Music Departments may require an audition for admission to Music programs. Through ensemble experience and private applied instruction, the AFA provides students the opportunity to audition successfully. Students must maintain a cumulative GPA of 2.0 or better.

First Quarter

MUSC&	141	Music Theory I	5
MUSC	176	Beginner Piano Class I	2
		Ensemble [1]	2
		General Education Requirement [2]	5
		MUSPL Music Private Lesson [3]	1
		Total	**15**

Second Quarter

MUSC&	142	Music Theory II	5
MUSC	177	Beginner Piano Class II	2
		Ensemble [1]	2

		General Education Requirement [2]	10
		MUSPL Music Private Lesson [3]	1
		Total	**20**

Third Quarter

MUSC&	143	Music Theory III	5
MUSC	178	Beginner Piano Class III	2
		Ensemble [1]	2
		General Education Requirement [2]	5
		MUSPL Music Private Lesson [3]	1
		Total	**15**

Fourth Quarter

MUSC&	241	Music Theory IV	5
MUSC	276	Advanced Piano Class I	2
		Ensemble [1]	2
		General Education Requirement [2]	5
		MUSPL Music Private Lesson [4]	1
		Total	**15**

Fifth Quarter

MUSC&	242	Music Theory V	5
MUSC	277	Advanced Piano Class II	2
		Ensemble [1]	2
		General Education Requirement [2]	10
		MUSPL Music Private Lesson [4]	1
		Total	**20**

Sixth Quarter

MUSC&	243	Music Theory VI	5
MUSC	278	Advanced Piano Class III	2
		Ensemble [1]	2
		General Education Requirement [2]	5
		MUSPL Music Private Lesson [4]	1
		Total	**15**

100 credits are required for the Associate in Fine Arts

1 You may earn ensemble credit through participation in Men's Choir (MUSC 139/239), Women's Choir (MUSC 140/240), Chamber Choir (MUSC 127/227), Orchestra (MUSC 115/215), Concert Band (MUSC 145/245), Jazz Ensemble (MUSC 148/248), Small Ensembles (MUSC 134/234), Guitar Ensemble (MUSC 183), and Vocal Jazz Ensemble (MUSC 128/228). To select appropriate ensembles, it is essential you meet with a faculty academic adviser in Music. Not all ensembles transfer to all colleges and universities. So, it is important you select the ensembles transferable to the four year institution you wish to attend.

2 General Education Requirements must include ENGL& 101, MATH& 107, a social science, a non lab science course and a lab science course. Additional General Education Requirements are necessary as determined by your transfer destination. Please speak with a Music Academic Adviser.

3 MUSPL 101–103 does not fulfill the private lesson requirement.

4 MUSPL must be 200 level; may be substituted with MUSPL 260–264.

NATURAL RESOURCE MANAGEMENT: SCC

Natural Resource Management
Associate in Applied Science

The associate in applied science degree in Natural Resource Management prepares students to work in the forestry area. This program is conditionally accredited by the Society of American Foresters. Two additional options are available: Parks and Recreation or Wildlife Fisheries. The Parks and Recreation option prepares students for park maintenance and/or interpretive positions. The Wildlife/Fisheries option prepares students to perform field sampling as well as habitat restoration work.

All students must complete an internship of at least 400 hours to complete the degree. Second year: Student may remain in the main program which is forestry based, or they may select one of the two options for an AAS degree which requires a total of 105 credits.

First Quarter

ENVS	110	Plant Biology	5
NATRS	112	Natural Resources Mathematical Applications [1]	5
NATRS	120	Basic Computer Applications in Natural Resources	2
NATRS	202	Dendrology	5
NATRS	225	Natural Resources Occupational Experience	1
		Total	**18**

Second Quarter

NATRS	122	Natural Resources Trigonometric Applications	5
NATRS	204	Maps and Aerial Photo Interpretation	5
NATRS	215	Forest Measurements	5
NATRS	225	Natural Resources Occupational Experience	2
WATER	120	Hydrologic Technical and Field Reports [2]	5
		Total	**22**

Third Quarter

ENVS	220	Introduction to Geographic Information Systems for Natural Resources	5
NATRS	130	Chainsaw Operation, Maintenance and Safety	3
NATRS	201	Forest Protection	5
NATRS	230	Global Positioning Systems	3
		Total	**16**

Fourth Quarter

NATRS	203	Forest Harvesting and Products	5
NATRS	209	Silviculture	5
NATRS	216	Forest Inventory	5
NATRS	225	Natural Resources Occupational Experience [3]	1
		Total	**16**

Fifth Quarter

ENVS	207	Wildlife Biology	5
ENVS	210	Environmental Soil Science	5
NATRS	221	Applications in Geographic Information Systems	4
NATRS	225	Natural Resources Occupational Experience [3]	1
		Elective [4]	5
		Total	**20**

Sixth Quarter

ENVS	208	Outdoor Recreation and Interpretation	3
NATRS	205	Surveying	5
		Elective [5]	5
		Total	**13**

105 credits are required for the Associate in Applied Science

1 Must pass with a 2.0 or higher grade before advancing into NATRS 122.

2 Approved written communication courses at the level of 100 or higher may be substituted.
3 A 400 hour internship, either paid or volunteer, must have been completed before registering for this course.
4 Electives may include any liberal arts, career or technical course number 100 or higher and are acceptable for an AA degree.
5 Elective may include any ENVS, NATRS, WATER, or AGHRT course number 100 or higher.

Natural Resources Technologies in Geographic Information Systems
Certificate

The associate in applied science degree in Natural Resource Management prepares students to work in the forestry area. This program is conditionally accredited by the Society of American Foresters. Two additional options are available: Parks and Recreation or Wildlife Fisheries. The Parks and Recreation option prepares students for park maintenance and/or interpretive positions. The Wildlife/Fisheries option prepares students to perform field sampling as well as habitat restoration work.

All students must complete an internship of at least 400 hours to complete the degree. Second year: Student may remain in the main program which is forestry based, or they may select one of the two options for an AAS degree which requires a total of 105 credits.

Courses

		Natural Resources Electives [1]	3
		Natural Special Project Electives [2]	3
		Total	**6**

First Quarter

NATRS	112	Natural Resources Mathematical Applications [3]	5
NATRS	120	Basic Computer Applications in Natural Resources	2
		Total	**7**

Second Quarter

ENVS	220	Introduction to Geographic Information Systems for Natural Resources	5
NATRS	230	Global Positioning Systems	3
		Total	**8**

Third Quarter

NATRS	204	Maps and Aerial Photo Interpretation	5
NATRS	221	Applications in Geographic Information Systems	4
		Total	**9**

30 credits are required for the Certificate

Natural Resources Electives

ENVS	207	Wildlife Biology	5
ENVS	217	Wildlife Techniques	4
ENVS	226	Fisheries Techniques	4
NATRS	216	Forest Inventory	5

Natural Special Project Electives

NATRS	232	Field Projects in Natural Resources	3

1 Students may select courses from the Natural Resource Elective's group for a minimum of three credits.
2 Students must be enrolled in the Natural Resources Management, Parks and Recreation option, or the Wildlife/Fisheries option program.
3 This related education requirement may be met by any course or combination of courses approved by the instructional dean. NATRS 112 must be passed with a 2.0 or higher grade.
4 NATRS 220 contains a prerequisite of NATRS 120 or permission of instructor. Student must be enrolled in the Natural Resource Management, Parks and Recreation option, or the Wildlife/Fisheries option program.
5 Student must be enrolled in the Natural Resource Management or the Parks and Recreation option program.
6 ENVS 217 contains a prerequisite of NATRS 120, 122, ENVS 207 or permission of instructor. Student must be enrolled in the Wildlife/Fisheries option program.
7 ENVS 226 contains a prerequisite which requires enrollment in the Wildlife/Fisheries option program or permission of instructor.
8 NATRS 216 contains a prerequisite of NATRS 215, 122 or permission of instructor and enrollment in the Natural Resource management program.

Parks and Recreation
Associate in Applied Science

The associate in applied science degree in Natural Resource Management prepares students to work in the forestry area. This program is conditionally accredited by the Society of American Foresters. Two additional options are available: Parks and Recreation or Wildlife Fisheries. The Parks and Recreation option prepares students for park maintenance and/or interpretive positions. The Wildlife/Fisheries option prepares students to perform field sampling as well as habitat restoration work.

All students must complete an internship of at least 400 hours to complete the degree. Second year: Student may remain in the main program which is forestry based, or they may select one of the two options for an AAS degree which requires a total of 105 credits.

First Quarter

ENVS	110	Plant Biology	5
NATRS	112	Natural Resources Mathematical Applications [1]	5
NATRS	120	Basic Computer Applications in Natural Resources	2
NATRS	202	Dendrology	5
NATRS	225	Natural Resources Occupational Experience	1
		Total	**18**

Second Quarter

NATRS	204	Maps and Aerial Photo Interpretation	5
NATRS	215	Forest Measurements	5
NATRS	225	Natural Resources Occupational Experience	2
WATER	120	Hydrologic Technical and Field Reports [2]	5
		Elective [3]	3
		Total	**20**

Third Quarter

ENVS	104	Environmental Conservation	5
ENVS	220	Introduction to Geographic Information Systems for Natural Resources	5
NATRS	130	Chainsaw Operation, Maintenance and Safety	3
NATRS	201	Forest Protection	5
NATRS	230	Global Positioning Systems	3
		Total	**21**

Fourth Quarter

AGGEN	156	Equipment Operation and Maintenance	2
CMST&	101	Introduction to Communication	5

NATRS	209	Silviculture	5
NATRS	225	Natural Resources Occupational Experience [4]	1
		Elective [3]	4
		Total	**17**

Fifth Quarter

ENVS	207	Wildlife Biology	5
ENVS	210	Environmental Soil Science	5
NATRS	225	Natural Resources Occupational Experience [4]	1
		Elective [5]	5
		Total	**16**

Sixth Quarter

AGGEN	151	Shop Skills	4
ENVS	208	Outdoor Recreation and Interpretation	3
ENVS	237	Bird Identification	3
		Elective [3]	3
		Total	**13**

105 credits are required for the Associate in Applied Science

1. Must pass with a 2.0 or higher grade before advancing into NATRS 122.
2. Approved written communication courses at the level of 100 or higher may be substituted.
3. Electives must be AGGEN, AGHRT, ENVS or WATER courses.
4. A 400 hour internship, either paid or volunteer, must have been completed before registering for this course.
5. Electives may include any liberal arts, career or technical course number 100 or higher and are acceptable for an AA degree.

Wildlife/Fisheries
Associate in Applied Science

The associate in applied science degree in Natural Resource Management prepares students to work in the forestry area. This program is conditionally accredited by the Society of American Foresters. Two additional options are available: Parks and Recreation or Wildlife Fisheries. The Parks and Recreation option prepares students for park maintenance and/or interpretive positions. The Wildlife/Fisheries option prepares students to perform field sampling as well as habitat restoration work.

All students must complete an internship of at least 400 hours to complete the degree. Second year: Student may remain in the main program which is forestry based, or they may select one of the two options for an AAS degree which requires a total of 105 credits.

First Quarter

ENVS	110	Plant Biology	5
NATRS	112	Natural Resources Mathematical Applications [1]	5
NATRS	120	Basic Computer Applications in Natural Resources	2
NATRS	202	Dendrology	5
NATRS	225	Natural Resources Occupational Experience	1
		Total	**18**

Second Quarter

NATRS	122	Natural Resources Trigonometric Applications	5
NATRS	204	Maps and Aerial Photo Interpretation	5
NATRS	215	Forest Measurements	5
NATRS	225	Natural Resources Occupational Experience	2
WATER	120	Hydrologic Technical and Field Reports [2]	5
		Total	**22**

Third Quarter

ENVS	220	Introduction to Geographic Information Systems for Natural Resources	5
NATRS	130	Chainsaw Operation, Maintenance and Safety	3
NATRS	201	Forest Protection	5
NATRS	230	Global Positioning Systems	3
		Total	**16**

Fourth Quarter

ENVS	216	Fisheries Ecology	5
ENVS	226	Fisheries Techniques	4
NATRS	209	Silviculture	5
NATRS	225	Natural Resources Occupational Experience [3]	1
		Total	**15**

Fifth Quarter

ENVS	207	Wildlife Biology	5
ENVS	210	Environmental Soil Science	5
NATRS	221	Applications in Geographic Information Systems	4
NATRS	225	Natural Resources Occupational Experience [3]	1
WATER	209	Water Quality	5
		Total	**20**

Sixth Quarter

ENVS	217	Wildlife Techniques	4
ENVS	227	Advanced Wildlife Biology	4
ENVS	237	Bird Identification	3
WATER	205	Differential Leveling	3
		Total	**14**

105 credits are required for the Associate in Applied Science

1. Must pass with a 2.0 or higher grade before advancing into NATRS 122.
2. Approved written communication courses at the level of 100 or higher may be substituted.
3. A 400 hour internship, either paid or volunteer, must have been completed before registering for this course.

NETWORK DESIGN AND ADMINISTRATION: SCC

Cisco Networking
Certificate

The Network Design and Administration program prepares students as local–and wide–area network administrators. Successful completion of the program provides students with the essential skills of network administration including network design, implementation, maintenance, optimization, and troubleshooting, utilizing a variety of network operating systems, and hardware platforms and protocols. These include but are not limited to Microsoft, Cisco and UNIX. Upon completion, students have covered objectives leading toward professional certification. Effective oral and written communications are emphasized throughout the program.

Degree Prerequisites/Requirements:

- Completion of BT 101 Keyboarding or keyboarding challenge through testing center
- CIS 110 or permission of Department Chair

All required courses must be completed with a grade of 2.0 or better before proceeding to the next quarter or before a diploma is awarded.

First Quarter

CIS	250	Cisco I Introduction to Networks	5
CIS	251	Cisco II Routing and Switching Essentials	5
CIS	252	Cisco III Scaling Networks	5
CIS	253	Cisco IV Connecting Networks	5
		Total	**20**

20 credits are required for the Certificate

Introduction to Networking
Certificate

The Network Design and Administration program prepares students as local–and wide–area network administrators. Successful completion of the program provides students with the essential skills of network administration including network design, implementation, maintenance, optimization, and troubleshooting, utilizing a variety of network operating systems, and hardware platforms and protocols. These include but are not limited to Microsoft, Cisco and UNIX. Upon completion, students have covered objectives leading toward professional certification. Effective oral and written communications are emphasized throughout the program.

Degree Prerequisites/Requirements:

- Completion of BT 101 Keyboarding or keyboarding challenge through testing center
- CIS 110 or permission of Department Chair

All required courses must be completed with a grade of 2.0 or better before proceeding to the next quarter or before a diploma is awarded.

First Quarter

CIS	205	Windows Client OS	5
		Total	**5**

5 credits are required for the Certificate

Microsoft Networking
Certificate

The Network Design and Administration program prepares students as local–and wide–area network administrators. Successful completion of the program provides students with the essential skills of network administration including network design, implementation, maintenance, optimization, and troubleshooting, utilizing a variety of network operating systems, and hardware platforms and protocols. These include but are not limited to Microsoft, Cisco and UNIX. Upon completion, students have covered objectives leading toward professional certification. Effective oral and written communications are emphasized throughout the program.

Degree Prerequisites/Requirements:

- Completion of BT 101 Keyboarding or keyboarding challenge through testing center
- CIS 110 or permission of Department Chair

All required courses must be completed with a grade of 2.0 or better before proceeding to the next quarter or before a diploma is awarded.

First Quarter

CIS	236	Windows Server Administration	5
CIS	244	Windows Server Installation and Configuration	5
CIS	263	Advanced Windows Server	5
CIS	277	Database Administration	5
		Total	**20**

20 credits are required for the Certificate

Mobile Device Management
Certificate

The Network Design and Administration program prepares students as local–and wide–area network administrators. Successful completion of the program provides students with the essential skills of network administration including network design, implementation, maintenance, optimization, and troubleshooting, utilizing a variety of network operating systems, and hardware platforms and protocols. These include but are not limited to Microsoft, Cisco and UNIX. Upon completion, students have covered objectives leading toward professional certification. Effective oral and written communications are emphasized throughout the program.

Degree Prerequisites/Requirements:

- Completion of BT 101 Keyboarding or keyboarding challenge through testing center
- CIS 110 or permission of Department Chair

All required courses must be completed with a grade of 2.0 or better before proceeding to the next quarter or before a diploma is awarded.

Courses

CIS	103	Mobile Devices	5
CIS	104	Mobile Device Management	5
		Total	**10**

10 credits are required for the Certificate

Mobile Health Information Technology
Certificate

The Network Design and Administration program prepares students as local–and wide–area network administrators. Successful completion of the program provides students with the essential skills of network administration including network design, implementation, maintenance, optimization, and troubleshooting, utilizing a variety of network operating systems, and hardware platforms and protocols. These include but are not limited to Microsoft, Cisco and UNIX. Upon completion, students have covered objectives leading toward professional certification. Effective oral and written communications are emphasized throughout the program.

Degree Prerequisites/Requirements:

- Completion of BT 101 Keyboarding or keyboarding challenge through testing center
- CIS 110 or permission of Department Chair

All required courses must be completed with a grade of 2.0 or better before proceeding to the next quarter or before a diploma is awarded.

First Quarter

CIS	103	Mobile Devices	5
CIS	104	Mobile Device Management	5
		Total	**10**

Second Quarter

HIM	219	Healthcare Environment and Professional Skills	5
HIM	220	Health Technology Environment and Security	5

HIM	221	HIMS Systems Analysis, Implementation and Maintenance	5
		Total	**15**

25 credits are required for the Certificate

Network Design and Administration
Associate in Applied Science

The Network Design and Administration program prepares students as local–and wide–area network administrators. Successful completion of the program provides students with the essential skills of network administration including network design, implementation, maintenance, optimization, and troubleshooting, utilizing a variety of network operating systems, and hardware platforms and protocols. These include but are not limited to Microsoft, Cisco and UNIX. Upon completion, students have covered objectives leading toward professional certification. Effective oral and written communications are emphasized throughout the program.

Degree Prerequisites/Requirements:

- Completion of BT 101 Keyboarding or keyboarding challenge through testing center
- CIS 110 or permission of Department Chair

All required courses must be completed with a grade of 2.0 or better before proceeding to the next quarter or before a diploma is awarded.

First Quarter

CIS	103	Mobile Devices	5
CIS	106	Network Math	2
CIS	108	Computer Math	3
CIS	201	IT Essentials - A+	5
		Total	**15**

Second Quarter

CIS	234	Network Scripting	3
CIS	244	Windows Server Installation and Configuration	5
CIS	250	Cisco I Introduction to Networks	5
ENGL&	101	English Composition I	5
		Total	**18**

Third Quarter

CIS	236	Windows Server Administration	5
CIS	247	Virtualization Technologies	5
CIS	251	Cisco II Routing and Switching Essentials	5
		Communication Elective [1]	5
		Total	**20**

Fourth Quarter

BT	280	Project Management for the Office	2.5
CIS	206	Introduction to Linux/Unix	5
CIS	252	Cisco III Scaling Networks	5
CIS	263	Advanced Windows Server	5
		Total	**17.5**

Fifth Quarter

BT	160	Job Preparation Techniques	3
CIS	213	Advanced Linux/Unix	5
CIS	253	Cisco IV Connecting Networks	5
CIS	286	Cisco Emerging Technologies	5
		Total	**18**

Sixth Quarter

CIS	270	Principles of Network Security	5
CIS	275	Networking Capstone	5
CIS	277	Database Administration	5
		Total	**15**

103.5 credits are required for the Associate in Applied Science

Communication Elective

BUS	280	Human Relations in Business	5
CMST&	210	Interpersonal Communication	5
CMST	227	Intercultural Communication	5
CMST&	230	Small Group Communication	5
CMST	250	Managing Conflict Through Communication	5
ENGL	120	Applied Technical Writing for Vocations	3-5
ENGL&	235	Technical Writing	5

[1] Select from the communication elective group.

Network Design and Administration
Certificate

The Network Design and Administration program prepares students as local–and wide–area network administrators. Successful completion of the program provides students with the essential skills of network administration including network design, implementation, maintenance, optimization, and troubleshooting, utilizing a variety of network operating systems, and hardware platforms and protocols. These include but are not limited to Microsoft, Cisco and UNIX. Upon completion, students have covered objectives leading toward professional certification. Effective oral and written communications are emphasized throughout the program.

Degree Prerequisites/Requirements:

- Completion of BT 101 Keyboarding or keyboarding challenge through testing center
- CIS 110 or permission of Department Chair

All required courses must be completed with a grade of 2.0 or better before proceeding to the next quarter or before a diploma is awarded.

First Quarter

CIS	103	Mobile Devices	5
CIS	106	Network Math	2
CIS	108	Computer Math	3
CIS	201	IT Essentials - A+	5
		Total	**15**

Second Quarter

CIS	206	Introduction to Linux/Unix [1]	5
CIS	244	Windows Server Installation and Configuration	5
CIS	250	Cisco I Introduction to Networks	5
ENGL&	101	English Composition I	5
		Total	**20**

Third Quarter

CIS	236	Windows Server Administration	5
CIS	247	Virtualization Technologies	5
CIS	251	Cisco II Routing and Switching Essentials	5
		Communication Elective [2]	5
		Total	**20**

55 credits are required for the Certificate

Communication Elective

BUS	280	Human Relations in Business	5
CMST&	210	Interpersonal Communication	5
CMST	227	Intercultural Communication	5
CMST&	230	Small Group Communication	5
CMST	250	Managing Conflict Through Communication	5
ENGL	120	Applied Technical Writing for Vocations	3-5

ENGL&	235	Technical Writing	5

1 CIS 206 may be substituted with CIS 263 if CIS 206 is not offered in the appropriate quarter (certificate only).
2 Select from the communication elective group.

Networking Essentials
Certificate

The Network Design and Administration program prepares students as local–and wide–area network administrators. Successful completion of the program provides students with the essential skills of network administration including network design, implementation, maintenance, optimization, and troubleshooting, utilizing a variety of network operating systems, and hardware platforms and protocols. These include but are not limited to Microsoft, Cisco and UNIX. Upon completion, students have covered objectives leading toward professional certification. Effective oral and written communications are emphasized throughout the program.

Degree Prerequisites/Requirements:
- Completion of BT 101 Keyboarding or keyboarding challenge through testing center
- CIS 110 or permission of Department Chair

All required courses must be completed with a grade of 2.0 or better before proceeding to the next quarter or before a diploma is awarded.

First Quarter

CIS	103	Mobile Devices	5
CIS	201	IT Essentials - A+	5
CIS	234	Network Scripting	3
		Total	**13**

13 credits are required for the Certificate

Unix Networking
Certificate

The Network Design and Administration program prepares students as local–and wide–area network administrators. Successful completion of the program provides students with the essential skills of network administration including network design, implementation, maintenance, optimization, and troubleshooting, utilizing a variety of network operating systems, and hardware platforms and protocols. These include but are not limited to Microsoft, Cisco and UNIX. Upon completion, students have covered objectives leading toward professional certification. Effective oral and written communications are emphasized throughout the program.

Degree Prerequisites/Requirements:
- Completion of BT 101 Keyboarding or keyboarding challenge through testing center
- CIS 110 or permission of Department Chair

All required courses must be completed with a grade of 2.0 or better before proceeding to the next quarter or before a diploma is awarded.

First Quarter

CIS	206	Introduction to Linux/Unix	5
CIS	213	Advanced Linux/Unix	5
		Total	**10**

10 credits are required for the Certificate

NURSING: SCC

Associate in Nursing Direct Transfer Agreement/Major Related Program

The Associate in Nursing DTA/MRP is a pathway for students to move from the community college to a university as a senior student. This pathway allows for seamless progression to baccalaureate education. A candidate for the Associate in Nursing DTA/MRP degree must complete 60 support nursing program credits and 75 core nursing program credits to be eligible for completion of this degree. It's highly recommended that students meet with a counselor or academic advisor at SCC or SFCC on a regular basis to ensure that requirements for this program are being met.

- Completion of the required nursing support courses does not ensure admission into the Nursing program.
- Students must complete all the nursing required support courses prior to starting the nursing program. Students may apply to the nursing program after completing 45 credits. The courses that must be completed prior to application are: BIOL& 160, CHEM& 121, BIOL& 241, BIOL& 242, BIOL& 260, ENGL& 101, PSYC& 100, PSYC& 200, and MATH& 146. The remaining 15 credits may be taken while waiting for acceptance to the program. Acceptance will be conditional if all required nursing support courses are not completed prior to the start of the nursing program.
- A minimum cumulative GPA of 3.0 in all nursing support courses with minimum GPA of 2.5 in each nursing support course is required to move to the competitive scoring process. Only nursing support courses will be considered in calculation of the GPA.
- Completion of the DTA will satisfy requirements for direct transfer with only one additional year of study to complete the Bachelor of Science in Nursing (BSN) degree at four–year institutions in Washington State. Please double check the college requirements with any other school to ensure they accept the direct transfer agreement. It is highly recommended that students meet with a counselor or academic advisor to ensure the college they choose does not have additional requirements.
- Please refer to the nursing program admission requirements as they may have changed. www.scc.spokane.edu/HealthSciences/Nursing/Home.aspx

Courses

BIOL&	160	General Biology w/Lab [1]	5
BIOL&	241	Human A & P 1 [1]	5
BIOL&	242	Human A & P 2 [1]	5
BIOL&	260	Microbiology [1]	5
CHEM&	121	Intro to Chemistry: w/Lab [6]	5
CMST	227	Intercultural Communication	5
ENGL&	101	English Composition I	5
ENGL&	102	Composition II	5
HUM&	101	Intro to Humanities [5]	5
MATH&	146	Introduction to Stats [1]	5
PSYC&	100	General Psychology	5
PSYC&	200	Lifespan Psychology	5
		Total	**60**

First Quarter

NURS	101	Foundational Principles in Nursing	3
NURS	102	Application of Foundational Principles in Nursing	5
NUTRI	251	Nutrition in Healthcare	5
		Total	**13**

Second Quarter

NURS	104	Nursing Care of Patients Across the Lifespan	3
NURS	105	Application of Nursing Care of Patients Across the Lifespan	5
NURS	106	PSYC 106/Psychosocial Issues in Healthcare I [2]	2
NURS	110	Pharmacology in Nursing Practice	2
		Total	**12**

Third Quarter

NURS	111	Nursing Care of the Acute Patient	4
NURS	112	Application of Nursing Care of the Acute Patient	5
NURS	113	PSYC 113/Psychosocial Issues in Healthcare II [3]	3
		Total	**12**

Fourth Quarter

NURS	200	Care of the Developing Family	3
NURS	201	Application of Care of the Developing Family	2
NURS	202	PHIL 202/Ethics and Policy in Healthcare I [4]	3
NURS	203	Care of the Mental Health Patient	3
NURS	204	Application of Care of the Mental Health Patient	2
		Total	**13**

Fifth Quarter

NURS	205	Nursing Care of the Critically Ill Patient	5
NURS	206	Application of Nursing Care of the Critically Ill Patient	6
NURS	207	PHIL 207/Ethics and Policy in Healthcare II [4]	2
		Total	**13**

Sixth Quarter

NURS	208	Capstone Experience in Nursing	6
NURS	209	Leadership Principles in Nursing Care	4
NURS	210	Simulation in Nursing Practices	2
		Total	**12**

135 credits are required for the Associate in Nursing Direct Transfer Agreement/Major Related Program

1 This required support course must have been completed within the last five years with a 2.5 grade or higher. Because of the number of applicants for this program, the completion of all required support courses does not ensure the admission into the program at the next available quarter.

2 This nursing course is also considered part of the 15 credits required in the Social Sciences discipline. This course is cross–listed with PSYC 106.

3 This nursing course is also considered part of the 15 credits required in the Social Sciences discipline. This course is cross–listed with PSYC 113.

4 This nursing course is also considered part of the 15 credits required in the Humanities discipline. This course is cross–listed with PHIL 202 and PHIL 207.

5 This course may be substituted with other courses from the Humanities distribution area of the AA/DTA (except Philosophy).

6 This required support course must have been completed within the last five years with a 2.5 grade or higher. This course may be substituted with a higher level Chemistry class.

Nursing Assistant Certified
Certificate

Nursing assistants care for patients in hospitals, long–term care facilities, hospice, and in the home. This course introduces students to this fulfilling career, covering basic nursing assistant skills, patient and family relationships, health care teams and legal issues. CPR and HIV/AIDS training is included in this course.

This course prepares students to provide direct patient care in a variety of health care settings. The Nursing Assistant Certified has direct contact with the patients and residents in these settings in the process of providing care for their basic daily needs. Students learn to recognize the patient's physical, social and emotional needs and to care for these patients and meet their needs in a caring manner.

Required: Background check and 100 percent attendance in lecture and clinical required to qualify to take the Nursing Assistant Certification exam.

First Quarter

NURS	108	Nursing Assistant Certified	6
		Total	**6**

6 credits are required for the Certificate

OCCUPATIONAL THERAPY ASSISTANT: SFCC

Occupational Therapy Assistant
Associate in Applied Science

The Associate in Applied Science Degree will prepare students for positions in the health and rehabilitation profession as Occupational Therapy Assistants. Occupational Therapy Assistants work under the direction of Occupational Therapists and provide services to patients and assist them in carrying out activities and exercises developed from a treatment plan. Occupational Therapy Assistants work with individuals in need of rehabilitation who have mental, physical, emotional or developmental impairments. The goal of the program is to provide students with the knowledge, skills, and experiences required of an Occupational Therapy Assistant. This includes the knowledge and competencies required by any health care professional as well as specific skills, knowledge and experiences specific to rehabilitation services.

The OTA program incorporates a selective process for admission. This process uses a point system based on coursework and experience as outlined in the application. Please be aware that the completion of all prerequisites does not ensure admission to the program.
ACOTE
http://www.spokanefalls.edu/TechProf/OccupationalTherapy/Home.aspx?page=PV1&subpage=PV4

Admission Requirements

- Completion of the online Occupational Therapy Assistant Program Application Booklet. Applications are accepted during the winter quarter preceding fall quarter entry into the program. See the booklet for specific due dates. Entry into the program is only one time a year, Fall quarter.
- Appropriate placement scores in assessment tests for ENGL& 101 and Math.
- Minimum 2.0 in BIOL& 241.
- Documentation of paid or volunteer experience in a medical setting (40 hour minimum volunteer hours under supervision of OT or OTA, students graded to 100 hours).
- Completion of 3 essay questions related to occupational therapy.

- Professional Reference (mailed separately to Program Secretary's office).
- If application is complete, student will be required to participate in a group interview/activity session prior to selection.
- Upon acceptance, current immunizations and passing of physical examination, drug screening and Washington State Patrol and Federal criminal background check.

Prerequisites

BIOL&	241	Human A & P 1	
ENGL&	101	English Composition I	
MATH	94	Algebra II	
PSYC&	100	General Psychology	

First Quarter

OTA	101	Foundation of Occupational Therapy	3
OTA	102	Occupational Therapy Terminology	1
OTA	106	Regional Human Anatomy and Physiology	5
OTA	110	OTA Procedures	2
OTA	111	Activity Analysis	3
OTA	120	OTA Procedures Lab	2
		Total	**16**

Second Quarter

OTA	103	Applied Anatomy	2
OTA	104	Survey of Pathophysiology	5
OTA	105	Introduction to Neuroscience	4
OTA	113	Occupational Therapy Principles	3
OTA	123	Applied Anatomy Lab	2
		Total	**16**

Third Quarter

OTA	107	Human Development Through the Lifespan	2
OTA	112	Occupational Performance and Physical Disabilities	3
OTA	114	Therapeutic Activities	3
OTA	122	Occupational Performance and Physical Disabilities Lab	2
OTA	124	Therapeutic Activities Lab	2
OTA	127	Human Development Through the Lifespan Lab	1
OTA	151	Level I Clinical Fieldwork 1- Physical Disabilities	1
OTA	161	Documentation for the Occupational Therapy Assistant	1
		Total	**15**

Fourth Quarter

OTA	202	Group Dynamics	2
OTA	203	Management for the Occupational Therapy Assistant	2
OTA	210	Occupational Performance and Mental Health	3
OTA	212	Occupational Performance and Children	3
OTA	220	Occupational Performance and Mental Health Lab	2
OTA	232	Group Dynamics Lab	1
OTA	242	Occupational Performance and Children Lab	2
OTA	251	Level I Clinical Fieldwork II- Pediatrics and Mental Health	1
OTA	261	Level II Fieldwork Skills Seminar	1
		Total	**17**

Fifth Quarter

OTA	201	Issues in Occupational Therapy and Health Care	2
OTA	221	Occupational Performance and Aging	3
OTA	231	Occupational Performance and Aging Lab	2
OTA	252	Level I Clinical Fieldwork III	1
OTA	253	Level II Clinical Fieldwork 1a	6
OTA	263	Fieldwork II Seminar 1	1
		Total	**15**

Sixth Quarter

OTA	254	Level II Clinical Fieldwork 1b	4
OTA	255	Level II Clinical Fieldwork 2	8
OTA	264	Fieldwork II Seminar 2	1
		Total	**13**

92 credits are required for the Associate in Applied Science

1 ENGL& 101 may be substituted with ENGL& 235.

2 MATH 094 may be substituted with MATH 092, MATH 096, MATH& 107 or BUS 123.

OFFICE ASSISTANT: SFCC

Office Assistant
Certificate

The Office Assistant Certificate is a three–quarter program of study. Students may participate in online or on–ground classes. This certificate prepares students for entry–level positions in a business or office where utilizing many applications is required. Students gain knowledge in preparation of typical business documents, bookkeeping procedures, file management, Internet usage, and electronic calendaring. Students are prepared to perform general business and office duties including formatting correspondence, receiving telephone calls, composing effective written messages, and using positive customer service.

First Quarter

BT	106	Computing Essentials	5
BT	107	Business Communications [1]	5
BT	110	Strategies for Student Success	2
BUS	122	Practical Business Math	3
		Total	**15**

Second Quarter

BT	102	Document Processing	5
BT	155	Records Information Management	3
BT	272	Business Correspondence	5
CAPPS	180	Outlook	2
		Total	**15**

Third Quarter

ACCT	103	Fundamental Bookkeeping Procedures	3
BT	160	Job Preparation Techniques	3
BT	231	Office Procedures	5
CAPPS	151	Excel I	2
CAPPS	171	PowerPoint I	2
		Total	**15**

45 credits are required for the Certificate

1 BT 107 may be substituted with ENGL& 101 English Composition I.

ORTHOTICS AND PROSTHETICS: SFCC

Orthotic Prosthetic Technology
Associate in Applied Science

Orthotics and Prosthetics is the design and fabrication of braces and artificial limbs and is one of today's rapidly growing health–related professions. Advancing materials technology and an

increasing demand for orthotic–prosthetic services has led to an increase in the amount of technical support needed. There are many opportunities for the students completing a formal training program in orthotics and prosthetics.

The primary objective is to train students in the general fabrication procedures of orthotic and prosthetic devices, which include working with plastic, metal, leather, plaster, and orthotic and prosthetic components. Subjects covered include related human anatomy, technology of materials, hand and power tools, equipment, and laboratory safety.

A certificate is awarded at the completion of the Orthotics program and at the completion of the Prosthetics program. An associate in applied science degree in Orthotics and Prosthetics is granted to students who successfully complete both programs.

First Quarter

OR-PR	111	Foundations of Prosthetics	4
OR-PR	112	Transtibial Musculoskeletal Anatomy	2
OR-PR	114	Transtibial Prosthetics I	6
OR-PR	184	Mastectomy Fitter	1
OR-PR	186	Introductory CAD CAM	1
		Related General Education [1]	5
		Total	**19**

Second Quarter

OR-PR	122	Transfemoral Musculoskeletal Anatomy	1
OR-PR	124	Transtibial Prosthetics II	6
OR-PR	126	Transfemoral Prosthetics	5
OR-PR	182	Therapeutic Shoe Fitter	1
		Related General Education [1]	5
		Total	**18**

Third Quarter

OR-PR	132	Upper Extremity Musculoskeletal Anatomy	1
OR-PR	134	Transradial Prosthetics	6
OR-PR	136	Transhumeral Prosthetics	5
OR-PR	180	Orthotic Fitter	2
		Related General Education [1]	5
		Total	**19**

Fourth Quarter

OR-PR	138	Prosthetics Practicum	6
		Total	**6**

Fifth Quarter

HLTH	174	First Aid	3
OR-PR	141	Foundations of Orthotics	6
OR-PR	142	Spinal Musculoskeletal Anatomy	2
OR-PR	144	Spinal Orthotics	4
		Total	**15**

Sixth Quarter

BT	160	Job Preparation Techniques	3
OR-PR	152	Lower Extremity Musculoskeletal Anatomy 1-Lower Leg, Foot & Ankle	1
OR-PR	154	Foot Orthoses and Footwear Modifications	3
OR-PR	156	Lower Extremity Orthotics 1-Ankle-Foot Orthoses (AFOs)	8
		Total	**15**

Seventh Quarter

OR-PR	162	Lower Extremity Musculoskeletal Anatomy 2-Knee, Upper Leg, & Hip	1
OR-PR	164	Lower Extremity Orthotics 2-Knee-Ankle-Foot Orthoses (KAFOs)	8
OR-PR	172	Upper Extremity Musculoskeletal Anatomy	1
OR-PR	174	Upper Extremity Orthotics	2
		Total	**12**

Eighth Quarter

OR-PR	178	Orthotics Practicum	6
		Total	**6**

110 credits are required for the Associate in Applied Science

Related General Education

BT	107	Business Communications	5
BT	160	Job Preparation Techniques	3
BUS	123	Practical Business Math Applications	5
BUS	280	Human Relations in Business	5
HLTH	174	First Aid	3

[1] 21 general education course credits are required for the AAS degree.

Orthotics
Certificate

Orthotics and Prosthetics is the design and fabrication of braces and artificial limbs and is one of today's rapidly growing health–related professions. Advancing materials technology and an increasing demand for orthotic–prosthetic services has led to an increase in the amount of technical support needed. There are many opportunities for the students completing a formal training program in orthotics and prosthetics.

The primary objective is to train students in the general fabrication procedures of orthotic and prosthetic devices, which include working with plastic, metal, leather, plaster, and orthotic and prosthetic components. Subjects covered include related human anatomy, technology of materials, hand and power tools, equipment, and laboratory safety.

A certificate is awarded at the completion of the Orthotics program and at the completion of the Prosthetics program. An associate in applied science degree in Orthotics and Prosthetics is granted to students who successfully complete both programs.

First Quarter

OR-PR	141	Foundations of Orthotics	6
OR-PR	142	Spinal Musculoskeletal Anatomy	2
OR-PR	144	Spinal Orthotics	4
OR-PR	184	Mastectomy Fitter	1
OR-PR	186	Introductory CAD CAM	1
		Related General Education [1]	5
		Total	**19**

Second Quarter

OR-PR	152	Lower Extremity Musculoskeletal Anatomy 1-Lower Leg, Foot & Ankle	1
OR-PR	154	Foot Orthoses and Footwear Modifications	3
OR-PR	156	Lower Extremity Orthotics 1-Ankle-Foot Orthoses (AFOs)	8
OR-PR	180	Orthotic Fitter	2
OR-PR	182	Therapeutic Shoe Fitter	1
		Related General Education [1]	5
		Total	**20**

Third Quarter

OR-PR	162	Lower Extremity Musculoskeletal Anatomy 2-Knee, Upper Leg, & Hip	1
OR-PR	164	Lower Extremity Orthotics 2-Knee-Ankle-Foot Orthoses (KAFOs)	8

OR-PR	172	Upper Extremity Musculoskeletal Anatomy	1
OR-PR	174	Upper Extremity Orthotics	2
		Related General Education [1]	5
		Total	**17**

Fourth Quarter

OR-PR	178	Orthotics Practicum	6
		Total	**6**

62 credits are required for the Certificate

Related General Education

BT	107	Business Communications	5
BUS	123	Practical Business Math Applications	5
BUS	280	Human Relations in Business	5

[1] 15 general education course credits are required for a certificate.

Prosthetics
Certificate

Orthotics and Prosthetics is the design and fabrication of braces and artificial limbs and is one of today's rapidly growing health–related professions. Advancing materials technology and an increasing demand for orthotic–prosthetic services has led to an increase in the amount of technical support needed. There are many opportunities for the students completing a formal training program in orthotics and prosthetics.

The primary objective is to train students in the general fabrication procedures of orthotic and prosthetic devices, which include working with plastic, metal, leather, plaster, and orthotic and prosthetic components. Subjects covered include related human anatomy, technology of materials, hand and power tools, equipment, and laboratory safety.

A certificate is awarded at the completion of the Orthotics program and at the completion of the Prosthetics program. An associate in applied science degree in Orthotics and Prosthetics is granted to students who successfully complete both programs.

First Quarter

OR-PR	111	Foundations of Prosthetics	4
OR-PR	112	Transtibial Musculoskeletal Anatomy	2
OR-PR	114	Transtibial Prosthetics I	6
OR-PR	184	Mastectomy Fitter	1
OR-PR	186	Introductory CAD CAM	1
		Related General Education [1]	5
		Total	**19**

Second Quarter

OR-PR	122	Transfemoral Musculoskeletal Anatomy	1
OR-PR	124	Transtibial Prosthetics II	6
OR-PR	126	Transfemoral Prosthetics	5
OR-PR	180	Orthotic Fitter	2
OR-PR	182	Therapeutic Shoe Fitter	1
		Related General Education [1]	5
		Total	**20**

Third Quarter

OR-PR	132	Upper Extremity Musculoskeletal Anatomy	1
OR-PR	134	Transradial Prosthetics	6
OR-PR	136	Transhumeral Prosthetics	5
		Related General Education [1]	5
		Total	**17**

Fourth Quarter

OR-PR	138	Prosthetics Practicum	6
		Total	**6**

62 credits are required for the Certificate

Related General Education

BT	107	Business Communications	5
BUS	123	Practical Business Math Applications	5
BUS	280	Human Relations in Business	5

[1] 15 general education course credits are required for a certificate.

PARALEGAL: SCC

Paralegal
Associate in Applied Science

This regionally respected American Bar Association (ABA) approved program consists of basic and specialty legal courses designed to prepare students for employment in the legal services field. The program offers an Associate of Applied Sciences (AAS) in Paralegal Studies, Paralegal Certificate, and Limited License Legal Technician (LLLT) core curriculum courses.

The AAS in Paralegal Studies is awarded after completion of 90–98 credits of required coursework. If full class loads are taken each quarter, the program requires 6–7 quarters to complete. The supervised legal work experience required for graduation or the internship must be approved by the program director. A grade of 2.0 or higher in each class (including prerequisites) is required for both the AAS degree and the certificate.

Students may enroll in the certificate program instead of the AAS program if the student is in the process of or has completed an Associate of Arts degree (AA), AAS in Legal Administrative Assistant, Bachelor of Arts degree, or a Bachelor of Science degree from an accredited college and/or university.

Additionally, the LLLT core curriculum courses are offered to students. To become a LLLT students need to have earned an associates level degree or higher. Student pursuing the LLLT core curriculum may choose to pursue only the LLLT core curriculum courses or may enroll in an AA, AAS in Paralegal Students, or the Paralegal certificate program and integrate the LLLT courses into their course of study. Please see the Washington State Bar Associations LLLT webpage for more information.

Note: A paralegal graduate does not receive a license to practice law; thus performing legal work directly for the public or giving legal advice directly to the public constitutes the unauthorized practice of law.

Courses

Communication (5 credits required) [1]	0-5
ENGL& 101 [1]	5
General Education Electives (7-10 credits required)	7-10
Humanities (5 credits required)	5
Legal Courses (All courses required)	31
Legal Specialty Courses (27 credits required)	27
Math (5 credits required)	5
Social Sciences (5 credits required)	5
Supervised Legal Work Experience	5
Total	**90–98**

90-98 credits are required for the Associate in Applied Science

Communication (5 credits required)

CMST&	101	Introduction to Communication	5
CMST	103	Effective Listening	3
CMST&	210	Interpersonal Communication	5
CMST&	220	Public Speaking	5
CMST&	230	Small Group Communication	5
ENGL&	102	Composition II	5
ENGL&	113	Intro to Poetry	5
ENGL	238	Advanced Expository Writing	5

Humanities (5 credits required)

CMST	227	Intercultural Communication	5
ENGL&	111	Intro to Literature	5
ENGL	208	British Literature to 1800	5
ENGL	209	British Literature since 1800	5
ENGL	241	The Bible as Literature	5
ENGL	248	American Literature to 1865	5
ENGL	249	American Literature since 1865	5
ENGL	261	Studies in the Novel	5
ENGL	271	World Literature to 1650	5
ENGL	272	World Literature since 1650	5
HUM&	101	Intro to Humanities	5
HUM	201	Humanities, Past, Present, and Future	5
PHIL&	101	Intro to Philosophy	5
PHIL	110	Intro to Ethics	5
PHIL	220	Philosophy of Religion	5
PHIL	231	Modern Philosophical Problems	5

Legal Courses (All courses required)

BUS	204	Introduction to Law	5
LA	100	Legal Careers Orientation	1
LA	101	Introduction to Paralegalism	2
LA	105	Washington and Idaho Court Rules	3
LA	110	Legal Research and Writing	5
LA	118	Instrument Drafting	3
LA	120	Law Office Computing	5
LA	125	Law Office Procedures and Technology	3
LA	130	Legal Ethics	3
LA	135	Professional Effectiveness	1

Legal Specialty Courses (27 credits required)

ACCT	151	College Accounting I	5
ACCT&	201	Prin of Accounting I	5
HED	104	Medical Terminology and Anatomy	5
HED	105	Medical Terminology and Anatomy	5
LA	201	Introduction to Probate	3
LA	205	Contracts	3
LA	207	Domestic Relations and Estate Law	3
LA	211	Debtor-Creditor and Bankruptcy	3
LA	215	Commercial Transaction	3
LA	217	Business Organizations	3
LA	218	Employment Law	3
LA	219	Criminal Law and Procedure	3
LA	220	Torts	3
LA	221	Property and Real Estate Transactions I	3
LA	223	Interview and Investigation Techniques	3
LA	225	Trial Preparation and Procedures	3
LA	230	Insurance Law	3
LA	240	Special Issues Seminar	1-10
LA	241	Evidence	3
LA	285	Legal Office Internship	1-3

Math (5 credits required)

BUS	104	Business Mathematics	5
MATH&	107	Math in Society	5

Social Sciences (5 credits required)

HIST&	116	Western Civilization I	5
HIST&	117	Western Civilization II	5
HIST&	118	Western Civilization III	5
HIST&	136	US History 1	5
HIST&	137	US History 2	5
HIST&	214	Pacific NW History	5
HIST	230	Latin American History	5
POLS&	101	Intro to Political Science	5
POLS	125	Introduction to Global Issues	5
POLS&	202	American Government	5
POLS&	203	International Relations	5
PSYC&	100	General Psychology	5
PSYC	210	Conception through Adolescent Developmental Psychology	5
SOC&	101	Intro to Sociology	5
SOC	211	Marriage and the Family	5
SOC	221	Race and Ethnic Relations	5

Supervised Legal Work Experience

LA	245	Supervised Legal Work Experience	5

1 Students must be enrolled in ENGL& 101 or BT 272 during the first quarter unless the student has taken previously. ENGL& 101 satisfies 5 credits of communication; BT 272 does not.

2 Because each course is different, LA 240 may be repeated as frequently as desired and all credits received may be applied toward the specialty credit requirements for this degree.

3 Maximum of 3 credits of internship may be applied toward this degree.

4 Any generally transferable math course may be substituted. If BUS 104 is taken, BUS 103 is required prior to enrollment in BUS 104 and the student must complete an additional 5 credits from the approved list of courses in either communications, social sciences, or humanities.

5 ENGL& 101 or BT 272, LSEC 239, and LA 105 required prior to enrollment.

6 ENGL& 101 or BT 272, LSEC 239, and LA 105 (or concurrent enrollment in LA 105) required prior to enrollment.

7 LSEC 239 and BT 165 required prior to enrollment; or permission of instructor.

8 Any transferable college level general elective course from communications, humanities, social science, math, science, or foreign language.

9 Only on ACCT course may be counted towards Legal Specialty Courses requirements.

Paralegal
Certificate

This regionally respected American Bar Association (ABA) approved program consists of basic and specialty legal courses designed to prepare students for employment in the legal services field. The program offers an Associate of Applied Sciences (AAS) in Paralegal Studies, Paralegal Certificate, and Limited License Legal Technician (LLLT) core curriculum courses.

The AAS in Paralegal Studies is awarded after completion of 90–98 credits of required coursework. If full class loads are taken each quarter, the program requires 6–7 quarters to complete. The supervised legal work experience required for graduation or the internship must be approved by the program director. A grade of 2.0 or higher in each class (including prerequisites) is required for both the AAS degree and the certificate.

Students may enroll in the certificate program instead of the AAS program if the student is in the process of or has completed an Associate of Arts degree (AA), AAS in Legal Administrative Assistant, Bachelor of Arts degree, or a Bachelor of Science degree from an accredited college and/or university.

Additionally, the LLLT core curriculum courses are offered to students. To become a LLLT students need to have earned an associates level degree or higher. Student pursuing the LLLT core curriculum may choose to pursue only the LLLT core curriculum courses or may enroll in an AA, AAS in Paralegal Students, or the Paralegal certificate program and integrate the LLLT courses into their course of study. Please see the Washington State Bar Associations LLLT webpage for more information.

Note: A paralegal graduate does not receive a license to practice law; thus performing legal work directly for the public or giving legal advice directly to the public constitutes the unauthorized practice of law.

Courses

ENGL& 101 [1]	5
General Education Courses (10 credits required) [7]	5-10
Legal Courses (26 credits required)	26
Legal Specialty Courses (24 courses required)	24
Supervised Legal Work Experience	5
Total	**65–70**

65-70 credits are required for the Certificate

General Education Courses (10 credits required)

BUS	104	Business Mathematics	5
MATH&	107	Math in Society	5

Legal Courses (26 credits required)

LA	100	Legal Careers Orientation	1
LA	101	Introduction to Paralegalism	2
LA	105	Washington and Idaho Court Rules	3
LA	110	Legal Research and Writing	5
LA	118	Instrument Drafting	3
LA	120	Law Office Computing	5
LA	125	Law Office Procedures and Technology	3
LA	130	Legal Ethics	3
LA	135	Professional Effectiveness	1

Legal Specialty Courses (24 courses required)

ACCT	151	College Accounting I	5
ACCT&	201	Prin of Accounting I	5
BUS	204	Introduction to Law	5
HED	104	Medical Terminology and Anatomy	5
HED	105	Medical Terminology and Anatomy	5
LA	201	Introduction to Probate	3
LA	205	Contracts	3
LA	207	Domestic Relations and Estate Law	3
LA	211	Debtor-Creditor and Bankruptcy	3
LA	215	Commercial Transaction	3
LA	217	Business Organizations	3
LA	218	Employment Law	3
LA	219	Criminal Law and Procedure	3
LA	220	Torts	3
LA	221	Property and Real Estate Transactions I	3
LA	223	Interview and Investigation Techniques	3
LA	225	Trial Preparation and Procedures	3
LA	230	Insurance Law	3
LA	240	Special Issues Seminar	1-10
LA	285	Legal Office Internship	1-3

Supervised Legal Work Experience

LA	245	Supervised Legal Work Experience	5

1 Students must be enrolled in ENGL& 101 or BT 272 during the first quarter unless the student has taken previously. ENGL& 101 satisfies 5 credits of general education courses; BT 272 does not.

2 Because each course is different, LA 240 may be repeated as frequently as desired and all credits received may be applied toward the specialty credit requirements for this certificate.

3 Maximum of 3 credits of internship may be applied toward this certificate.

4 ENGL& 101 or BT 272, LSEC 239, and LA 105 required prior to enrollment.

5 ENGL& 101 or BT 272, LSEC 239, and LA 105 (or concurrent enrollment in LA 105) required prior to enrollment.

6 LSEC 239 and BT 165 required prior to enrollment; or permission of instructor.

7 Any transferable college level general elective course from communications, humanities, social science, math, science, or foreign language.

8 Any generally transferable math course may be substituted. If BUS 104 is taken, BUS 103 is required prior to enrollment in BUS 104.

9 Only one ACCT course may be counted towards Legal Specialty Courses requirements.

PHARMACY: SCC

Pharmacy Technician
Associate in Applied Science

The Pharmacy Technician program trains students in all phases of the pharmacy field: drug products, calculations, dosages, dispensing techniques, inventory management, and Washington pharmacy law. Graduates will be prepared to work in both community and hospital pharmacy settings.

Each required course for graduation must be completed with a 2.0 grade or better before proceeding to the next quarter and must be maintained in all classes. The student may enroll in liberal arts either preceding or following the professional curriculum. For an associate in applied science degree, the student must complete 25 credit hours of required courses and 7 hours of department approved electives numbered 100 or above in addition to the one–year professional curriculum.

Background Check Instructions for the Pre Surgical Tech Program Students:
Go to this link to submit the background check information: https://truehire.secure–screening.net/escreening/OApp_LoginEntrance.asp?mode=direct&code=008002

Enter in your name and email address. Select the "Pre Surgical Tech Program" option on the drop down. Enter in your information as directed in the link. Please carefully enter all information especially your drivers' license number and social security number. On the last page you will be asked for the credit card payment information. The background check will cost $39, provided all the information given is correct. If an incorrect drivers' license number or social security number is provided we will reach out to you for the correct number and this will be an additional charge of $25 to run the correct information.

- Admission Prerequisite Requirements:
- High school diploma or GED certificate
- Washington State Patrol (WSP) background check
- Typing test with a score of 35–40 wpm or completion of BT 106 within the last 5 years
- Interview with pharmacy technician instructor
- Three letters of recommendation
- Appropriate ALEKS math score
- Self–place into English
- Students may repeat a pharmacy technician class once, but it must be repeated within two years

- Each required course for graduation must be completed with a 2.0 grade or better before proceeding to the next quarter
- If the student does not pass a winter quarter class and has to repeat the class the next year, they must also pass the technique skills for the lab portion of PHARM 123 and 124.

Courses

		Electives [1]	7
		Required Courses for AAS Degree	25
		Total	**32**

First Quarter

HED	108	Human Anatomy [2]	5
HED	125	Medical Terminology [3]	5
PHARM	101	Introduction to Pharmacy Technician	3
PHARM	115	Mathematics for Pharmacy Technicians	5
PHARM	119	Pharmacology	3
		Total	**21**

Second Quarter

CMST&	210	Interpersonal Communication [4]	5
PHARM	122	Advanced Pharmacology	5
PHARM	123	Hospital Pharmacy Dispensing and Management	5
PHARM	124	Community Pharmacy Dispensing and Management	3
PHARM	131	Pharmacy Law and Ethics	3
		Total	**21**

Third Quarter

ENGL	189	Writing for Vocational Students [5]	2
HED	121	Cultural Diversity in Health Care	1
PHARM	130	Entering the Work Environment	2
PHARM	132	Community Pharmacy	6
PHARM	133	Hospital Pharmacy	6
		Total	**17**

91 credits are required for the Associate in Applied Science

Required Courses for AAS Degree

CIS	110	Introduction to Computer Applications	5
CMST	227	Intercultural Communication	5
ENGL&	101	English Composition I	5
PSYC&	100	General Psychology	5
SOC&	101	Intro to Sociology	5

1 Departmentally approved elective numbered 100 or above.

2 May be substituted with MEDA 110 or BIOL& 175 or BIOL& 241 and BIOL& 242 (Olympic College).

3 May be substituted with MEDA 162 (Olympic College).

4 May be substituted with OLRM 220 (Olympic College).

5 May be substituted with ENGL& 101 or ENGL& 102.

Pharmacy Technician Certificate

The Pharmacy Technician program trains students in all phases of the pharmacy field: drug products, calculations, dosages, dispensing techniques, inventory management, and Washington pharmacy law. Graduates will be prepared to work in both community and hospital pharmacy settings.

Each required course for graduation must be completed with a 2.0 grade or better before proceeding to the next quarter and must be maintained in all classes. The student may enroll in liberal arts either preceding or following the professional curriculum. For an associate in applied science degree, the student must complete 25 credit hours of required courses and 7 hours of department approved electives numbered 100 or above in addition to the one–year professional curriculum.

Background Check Instructions for the Pre Surgical Tech Program Students:
Go to this link to submit the background check information: https://truehire.secure–screening.net/escreening/OApp_LoginEntrance.asp?mode=direct&code=008002

Enter in your name and email address. Select the "Pre Surgical Tech Program" option on the drop down. Enter in your information as directed in the link. Please carefully enter all information especially your drivers' license number and social security number. On the last page you will be asked for the credit card payment information. The background check will cost $39, provided all the information given is correct. If an incorrect drivers' license number or social security number is provided we will reach out to you for the correct number and this will be an additional charge of $25 to run the correct information.

- Admission Prerequisite Requirements:
- High school diploma or GED certificate
- Washington State Patrol (WSP) background check
- Typing test with a score of 35–40 wpm or completion of BT 106 within the last 5 years
- Interview with pharmacy technician instructor
- Three letters of recommendation
- Appropriate ALEKS math score
- Self–place into English
- Students may repeat a pharmacy technician class once, but it must be repeated within two years
- Each required course for graduation must be completed with a 2.0 grade or better before proceeding to the next quarter
- If the student does not pass a winter quarter class and has to repeat the class the next year, they must also pass the technique skills for the lab portion of PHARM 123 and 124.

First Quarter

HED	108	Human Anatomy [1]	5
HED	125	Medical Terminology [2]	5
PHARM	101	Introduction to Pharmacy Technician	3
PHARM	115	Mathematics for Pharmacy Technicians	5
PHARM	119	Pharmacology	3
		Total	**21**

Second Quarter

CMST&	210	Interpersonal Communication	5
PHARM	122	Advanced Pharmacology	5
PHARM	123	Hospital Pharmacy Dispensing and Management	5
PHARM	124	Community Pharmacy Dispensing and Management	3
PHARM	131	Pharmacy Law and Ethics	3
		Total	**21**

Third Quarter

ENGL	189	Writing for Vocational Students [4]	2
HED	121	Cultural Diversity in Health Care	1
PHARM	130	Entering the Work Environment	2
PHARM	132	Community Pharmacy	6
PHARM	133	Hospital Pharmacy	6
		Total	**17**

59 credits are required for the Certificate

1 May be substituted with MEDA 110 or BIOL& 175 or BIOL& 241 and BIOL& 142 (Olympic College).

2 May be substituted with MEDA 162 (Olympic College).

3 May be substituted with OLRM 220 (Olympic College).

4 May be substituted with ENGL& 101 or ENGL& 102.

PHOTOGRAPHY: SFCC

Photography
Associate in Applied Science

Founded in 1965, the photography program at Spokane Falls Community College is an intensive two–year study of visual communications. Students explore career opportunities in commercial photography and multimedia production and have opportunities to interact with industry through field trips, guest speakers and cooperative work experiences.

First–year students learn the fundamentals of lighting and composition while surveying career fields. Second–year students complete projects with real world scenarios and focus on prevailing trends in the world of digital media production.

In addition to teaching technical skills and artistic design, the program stresses positive work habits and helps students develop personal career goals.

With guidance from an advisory committee made up of employers and working professionals, the photography program is constantly updated to reflect current industry standards.

First Quarter

PHOTO	101	Introduction to Photography	5
PHOTO	126	Digital Photography	5
		Communication Elective	5
		Total	**15**

Second Quarter

PHOTO	111	Studio Photography I	5
PHOTO	112	Photographic Design	5
		Art Elective	5
		Total	**15**

Third Quarter

PHOTO	121	Location Photography I	5
PHOTO	234	Digital Photography II	5
		Computation Elective	5
		Total	**15**

Fourth Quarter

PHOTO	200	Photography Media	5
PHOTO	232	Portraiture	5
		Human Relations/Leadership Elective	5
		Total	**15**

Fifth Quarter

PHOTO	227	Business of Photography	5
PHOTO	231	Studio Photography II	5
PHOTO	237	Introduction to Documentary DV Production	5
		Total	**15**

Sixth Quarter

PHOTO	225	Portfolio Development	5
PHOTO	233	Location Photography II	5
PHOTO	266	Cooperative Education Seminar	1
PHOTO	267	Cooperative Education Work Experience	1
		Photography Approved Electives	3-5
		Total	**15–17**

90-92 credits are required for the Associate in Applied Science

Art Elective

ART	105	Color and Design	5
PHOTO	120	Photographic Arts	5
PHOTO	240	Large Format Photography	5

Communication Elective

BT	107	Business Communications	5
ENGL&	101	English Composition I	5
JOURN	220	Introduction to News Writing	5

Computation Elective

ACCT	141	QuickBooks	5
BUS	123	Practical Business Math Applications	5
MATH&	107	Math in Society	5

Human Relations/Leadership Elective

BUS	280	Human Relations in Business	5
CMST&	101	Introduction to Communication	5
CMST&	210	Interpersonal Communication	5
CMST&	220	Public Speaking	5
HS	136	Improving Interpersonal Communication	5
MMGT	101	Principles of Management	5
PSYC&	100	General Psychology	5

Photography Approved Electives

ART	189	Printmaking	4
ART	191	Screen Printing	4
ART	192	Printmaking, Intaglio	4
PHOTO	120	Photographic Arts	5
PHOTO	131	Introduction to Photojournalism	3
PHOTO	132	Advanced Black and White Photography	3
PHOTO	235	Nature and Landscape Photography	3
PHOTO	236	Photography Workshop	1-4
PHOTO	240	Large Format Photography	5
PHOTO	247	HDSLR Filmmaking	5
PHOTO	267	Cooperative Education Work Experience	1-5

[1] In addition to listed electives, student may select independent study with approval of program instructor.

PHYSICAL THERAPIST ASSISTANT: SFCC

Physical Therapist Assistant
Associate in Applied Science

SFCC offers a two–year program which includes study in anatomy and physiology, social science, technical physical therapy courses and practical clinical experience in area health care facilities affiliated with the college. The program is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association (APTA). The technical courses for the Physical Therapist Assistant (PTA) program are not designed to transfer to four–year schools.

Physical therapist assistants duties include: a) designing exercise programs and treatments that are within the plan of care proposed by the physical therapist b) training patients to use special equipment that will make life easier; c) applying equipment such as electrical stimulation and ultrasound which decrease pain and increase functions; and d) keeping records and reporting to the physical therapist on the patient's progress.

Physical therapist assistants work with all ages and are employed in a wide variety of settings, including hospitals, rehabilitation centers, pediatric facilities or school systems, private physical therapy clinics, home health care agencies, and extended care facilities. A national licensing examination is required for most states in order to practice as a physical therapist assistant.

Admission Requirements:

—Completion of the physical therapist assistant program application booklet which is available at the SFCC counseling center. Applications are accepted during the

winter quarter preceding fall quarter entry into the program.

- —Appropriate placement scores in assessment tests for ENGL& 101 and Math.
- —A minimum of 2.0 in BIOL& 241.
- —Documentation of either paid or volunteer experience in a medical setting (preferably physical therapy).
- —Each successful PTA applicant may be required to complete a background check, drug testing and submit proof of immunization. Clinical facilities may deny access to a student for any of the following:
  - Lack of current immunizations required by the site
  - A "discrepancy" on the criminal background check
  - A positive drug test

  While entrance to the PTA Program may not be denied because of such a rating, without access to the clinical facilities a student may not be able to satisfactorily complete the PTA program and will be so advised.
- —Essential requirements needed for the profession which include communication skills, cognitive demands, physical skills and behavioral, social and professional skills are discussed in greater detail in the Program Information Booklet located on our website.

The PTA program incorporates a selective process for admission. This process uses a point system based on coursework and experience as outlined in the application. Please be aware that the completion of all prerequisites does not ensure admission to the program.

Prerequisites

BIOL&	241	Human A & P 1	

First Quarter

PTA	101	Introduction to Physical Therapy	3
PTA	102	Physical Therapy Terminology	1
PTA	106	Regional Human Anatomy and Physiology	5
PTA	110	PTA Procedures I: Basic PT Procedures Seminar	3
PTA	170	PTA Procedures I: Basic PT Procedures Lab	4
		Total	**16**

Second Quarter

PTA	103	Applied Anatomy	3
PTA	104	Survey of Pathophysiology	5
PTA	105	Introduction to Neuroscience	4
PTA	107	Physical Therapy Documentation	1
PTA	173	Applied Anatomy Lab	3
		Total	**16**

Third Quarter

PTA	111	PTA Procedures II: PT Modalities Seminar	3
PTA	112	PTA Procedures III: Functional Restoration Seminar	3
PTA	151	Clinical Experience I	1
PTA	171	PTA Procedures II: PT Modalities Lab	4
PTA	172	PTA Procedures III: Functional Restoration Lab	4
		Total	**15**

Fourth Quarter

ENGL&	101	English Composition I [2]	5
MATH	94	Algebra II [3]	5
PSYC&	100	General Psychology [4]	5
		Total	**15**

Fifth Quarter

PTA	202	Introduction to Orthopedics	3
PTA	210	PTA Procedures IV: Therapeutic Exercise Seminar	3
PTA	212	PTA Procedures VI: Pediatric Rehab Seminar	1
PTA	251	Clinical Experience II	1
PTA	254	Clinical Seminar II	1
PTA	270	PTA Procedures IV: Therapeutic Exercise Lab	4
PTA	272	PTA Procedures VI: Pediatric Rehab Lab	2
		Total	**15**

Sixth Quarter

PTA	201	Issues in Physical Therapy and Health Care	2
PTA	203	Physical Therapy Preparatory Lab	1
PTA	211	PTA Procedures V: Rehab Applications Seminar	3
PTA	252	Clinical Experience III	3
PTA	255	Clinical Seminar III	1
PTA	271	PTA Procedures V: Rehab Applications Lab	4
		Total	**14**

Seventh Quarter

PTA	253	PTA Clinical Affiliation	12
		Total	**12**

103 credits are required for the Associate in Applied Science

1. Must have been taken within the last five years and completed with a 2.0 grade or better. Coursework older than five years will be evaluated on a case–by–case basis. Even though BIOL& 160 is not a prerequisite for BIOL& 241 for PTA students, it is recommended. You must contact the counseling center in order to waive BIOL& 160 as a prerequisite for BIOL& 241.
2. Admission preference is given to students who complete these courses prior to entry into the program. May be substituted with approval of program chair. Credits may be taken during summer between first and second year. Credits from these courses are included in the total credits for degree.
3. MATH 092 or MATH 096 may be substituted for MATH 094. Placement test is needed to determine eligibility if a college level math has not been taken.
4. Abnormal Psychology may be substituted for PSYC& 100 General Psychology

PROJECT MANAGEMENT: SCC

Project Management/Lean/Six Sigma Certificate

This certificate program will prepare students to understand the concepts and methods associated with project initiation, planning, execution, monitoring and controlling, and closing phases of project management. Students will utilize computer applications to manage and control project tasks, communication, costs, scheduling and quality.

In conjunction with Project Management, this certificate program will also provide students with real–world Lean Six Sigma training. Students will lead a Lean Six Sigma event focused on a process improvement methodology that combines the benefits of both Lean manufacturing techniques and Six Sigma to help companies streamline operations, increase value and reduce waste. Students will engage in leadership and teambuilding development so vital for successful project management in the workplace. Students can expect to increase job skills for entry–level employment as well as career advancement. Courses in this program can be applied to the AAS degree in Management.

First Quarter

CATT	241	Microsoft Project	2.5
MMGT	243	Fundamentals of Project Management	5
MMGT	244	Introduction to Lean Six Sigma	2.5
MMGT	256	Lean Leadership [1]	5
		Total	**15**

15 credits are required for the Certificate

[1] Previous or concurrent enrollment in MMGT 243 and CATT 241 is required.

RADIOLOGY TECHNOLOGY: SCC

Radiology Technology
Associate in Applied Science

Radiologic technologists are an integral part of a team of healthcare workers providing patient care. Their primary duties include producing radiographic examinations that aid the physicians in diagnosing diseases and/or injuries. The radiologic technologist performs examinations at the request of a physician.

The technologist's primary role is obtaining top quality radiographic images while providing patient care. Radiologic departments can be found in hospitals, freestanding clinics and physician offices. While in the program the students become proficient at performing examinations in general radiography, fluoroscopy, surgery, trauma and intensive care units.

The program meets the criteria set forth by the Joint Review Committee on Education in Radiologic Technology (JRCERT) in collaboration with academic guidelines set by the American Society of Radiologic Technologists (ASRT). Joint Review Committee on Education in Radiologic Technology, 20 N. Wacker Dr. Suite 2850, Chicago IL 60606–3182, Phone: (312) 704–5300 Fax: (312) 704–5304

Upon completion and graduation of the program the students are able to take the national registry examination given by the American Registry of Radiologic Technologists (ARRT).

Each required course for graduation must be completed with a grade of 2.0 or better before proceeding to the next quarter. All clinicals must be completed with a grade of 2.5 or better.

National background checks and drug screening are completed at the beginning of the program and if there is a finding, clinical sites may not accept the student. This could prevent program completion, inability to take the national exam, and future employment due to a failed background check and/or drug screening.

Admission Requirements:

- Radiology courses are limited to students of the Radiology Technology program.
- Appropriate math score
- Self–place into English
- Students applying to the course must have completed 80 hours as a volunteer or employee in a patient care setting, and 10 of these hours need to be completed in a radiology department.
- Interviews will be conducted as part of the selection process for the Radiology program.
- Students must provide three confidential letters of recommendation.
- Immunizations, and drug screening are required (after being accepted into the Radiology Technology program). Forms are available in the SCC registration office.
- All math and science prerequisites must have been completed within the last five years with a grade of 2.5 or better. All documentation must be submitted by June 25th of the year of application.

Prerequisites

BIOL&	160	General Biology w/Lab
BIOL&	241	Human A & P 1
BIOL&	242	Human A & P 2
CIS	110	Introduction to Computer Applications
ENGL&	101	English Composition I
HED	125	Medical Terminology
MATH	99	Intermediate Algebra
PHYS	100	Introductory Physics
SURG	105	Blood-borne Pathogens and HIV/AIDS

First Quarter

RAD	111	Radiographic Positioning I	5
RAD	113	Patient Care and Ethics I	2
RAD	114	Radiographic Image Evaluation I	2
RAD	115	Radiographic Principles I	3
RAD	116	Clinical Education I	8
		Total	**20**

Second Quarter

RAD	121	Radiographic Positioning II	3
RAD	123	Patient Care and Ethics II	2
RAD	124	Radiographic Image Evaluation II	2
RAD	125	Radiographic Principles II	3
RAD	126	Clinical Education II	9
RAD	127	Mobile/Surgical Procedures	1
		Total	**20**

Third Quarter

RAD	131	Radiographic Positioning III	2
RAD	134	Radiographic Image Evaluation III	2
RAD	136	Clinical Education III	9
RAD	145	Radiographic Principles III	2
		Total	**15**

Fourth Quarter

RAD	141	Radiographic Positioning IV	2
RAD	144	Radiographic Image Evaluation IV	1
RAD	146	Clinical Education IV	7
RAD	235	Pharmacology/Venipuncture	2
		Total	**12**

Fifth Quarter

RAD	212	Quality Management	2
RAD	213	Various Modalities	2
RAD	214	Radiographic Image Evaluation V	2
RAD	215	Radiation Biology and Protection	1
RAD	216	Clinical Education V	9
		Total	**16**

Sixth Quarter

RAD	211	Radiographic Positioning V	1
RAD	223	Radiation Pathology	2
RAD	224	Radiographic Image Evaluation VI	2
RAD	225	Skull and GI Review	1
RAD	226	Clinical Education VI	9
		Total	**15**

Seventh Quarter

RAD	236	Clinical Education VII	9
RAD	237	Review and Registration Preparation	3
RAD	238	Cat Scan	1
RAD	239	Advanced Image Evaluation	1
		Total	**14**

112 credits are required for the Associate in Applied Science

[1] This course has a prerequisite of BIOL& 160.

[2] This related education requirement may be met by any course or combination of courses approved by the instructional dean.

[3] This course may be taken during the first quarter of the program. Recommended to take prior to enrollment.

RESPIRATORY CARE: SCC

Bachelor of Applied Science – Respiratory Care

Respiratory care is a dynamic, high tech, high touch healthcare profession involving direct patient care. Respiratory care practitioners (RCPs) specialize in the promotion of optimum cardiopulmonary function, health and wellness. Services provided to patients include diagnostic testing, therapeutic intervention, monitoring, rehabilitation, and the application of cardiopulmonary life–support systems. Respiratory care services are provided in all healthcare settings including acute care hospitals, long–term acute care facilities, rehabilitation facilities, patient's homes and physician offices.

Spokane Community College's bachelor of applied science in respiratory care prepares graduates with demonstrated competence in cognitive, psychomotor and affective domains of respiratory care practice as performed by registered respiratory therapists (RRTs). The program prepares leaders in the discipline by providing additional curricular content in research, management, advanced practice and education.

This program is accredited by the Commission on Accreditation for Respiratory Care (www.coarc.com), 1248 Harwood Road, Bedford, TX 76021–4244, (817) 283–2835.

Upon completion of the program students will earn a bachelor's of applied science in respiratory care and will be eligible to apply and sit the National Board for Respiratory Care (NBRC) exams for registered respiratory therapist (RRT) and the specialty exams in pulmonary function, neonatal–pediatric, and adult critical care.

Students are admitted to the program during the general education year. General education courses may not be repeated more than once. Successful admission and completion in the professional program is based on earning a 2.5 or higher in general education courses and a 2.0 (78%) or higher in all Respiratory Care courses.

Courses

BIOL&	160	General Biology w/Lab	5
BIOL&	241	Human A & P 1	5
BIOL&	242	Human A & P 2	5
BIOL&	260	Microbiology	5
CHEM&	121	Intro to Chemistry: w/Lab	5
CMST	227	Intercultural Communication	5
ENGL&	101	English Composition I	5
ENGL&	235	Technical Writing	5
MATH&	146	Introduction to Stats	5
		Total	**45**

First Quarter

RT	213	Electrophysiology	4
RT	241	Fundamentals of Respiratory Care I	3
RT	242	Fundamentals of Respiratory Care I Technical Skills Lab	2
RT	244	Cardiopulmonary Anatomy and Physiology	3
RT	248	Physical Science for Respiratory Care	3
		Total	**15**

Second Quarter

PHIL	110	Intro to Ethics	5
RT	251	Fundamentals of Respiratory Care II	3
RT	252	Fundamentals of Respiratory Care II Technical Skills Lab	2
RT	254	Fundamentals of Spirometry	2
RT	255	Fundamentals of Spirometry Technical Skills Lab	1
RT	256	Interpretation of Arterial Blood Gases	2
SURG	105	Blood-borne Pathogens and HIV/AIDS	1
		Total	**16**

Third Quarter

PSYC&	100	General Psychology	5
RT	261	Fundamentals of Respiratory Care III	4
RT	262	Fundamentals of Respiratory Care III Technical Skills Lab	2
RT	263	Respiratory Care Pharmacology	4
RT	264	Computer Applications in Respiratory Care	1
RT	265	RT Clinical I	1
		Total	**17**

Fourth Quarter

PSYC&	200	Lifespan Psychology	5
RT	301	Critical Care I	4
RT	304	Pathophysiology	5
RT	311	Critical Care I Technical Skills Lab	2
RT	321	RT Clinical II	2
		Total	**18**

Fifth Quarter

RT	302	Critical Care II	3
RT	305	Pulmonary Volumes Diffusion and Instrumentation	2
RT	308	Basic Life Support Instructor	2
RT	312	Critical Care II Technical Skills Lab	2
RT	315	PVDI Technical Skills Lab	1
RT	322	RT Clinical III	2
		Total	**12**

Sixth Quarter

RT	303	Home Care and Rehabilitation	2
RT	309	Advanced Pharmacology	3
RT	313	Home Care and Rehabilitation Technical Skills Lab	1
RT	325	PFT Clinical I	1
RT	331	Critical Care Clinical I	5
		Total	**12**

Seventh Quarter

RT	401	Pediatrics/Neonatal RT	3
RT	402	Advanced Cardiovascular Life Support	2
RT	403	Advanced Pulmonary Diagnostics	3
RT	411	Pediatrics/Neonatal Technical Skills Lab	2
RT	412	Advanced Cardiovascular Life Support Lab	1
RT	413	Advanced Pulmonary Diagnostics Technical Skills Lab	1
RT	421	Critical Care Clinical II	4
		Total	**16**

Eighth Quarter

RT	404	Research in Respiratory Care	2
RT	415	Disease Management	4
RT	416	Disaster Management	2
RT	423	Advanced Pulmonary Diagnostics Clinical	1
RT	424	Pediatric/Neonatal Clinical	3
RT	425	Advanced Critical Care Clinical	2
		Total	**14**

Ninth Quarter

RT	406	Management in Respiratory Care	2
RT	407	Patient Management and Problem Solving	3
RT	409	Research in Respiratory Capstone	2
RT	410	Fundamentals of Education Course Design	2
RT	417	Patient Management and Problem Solving Technical Skills Lab	1
RT	433	Advanced Clinical	5
		Total	**15**

180 credits are required for the Bachelor of Applied Science

RETAIL MANAGEMENT: SFCC

Retail Management
Certificate

The Retail Management Certificate prepares individuals to manage a variety of retail sales operations or lines of merchandise. Students who complete the ten course Retail Management Certificate program will develop a clear sense of the scope of a career in the field of retail management. The program serves both entry–level job candidates and incumbent employees. The curriculum includes foundational courses in both written and oral communication, business math, human relations, and microcomputer applications. Students also complete specific business and management courses in accounting, management, marketing, retailing, and human resource management. After successful completion of the required coursework, students will receive a Retail Management Certificate. This certificate is endorsed by the Western Association of Food Chains (WAFC).

First Quarter

BT	107	Business Communications [1]	5
BUS	103	Basic Business Math and Electronic Calculators [2]	5
IS	120	Business Computer Use	3
MMGT	150	Principles of Retail Merchandising	5
		Total	**18**

Second Quarter

ACCT&	201	Prin of Accounting I	5
CMST&	101	Introduction to Communication	5
MMGT	231	Human Resource Management	5
		Total	**15**

Third Quarter

BUS	280	Human Relations in Business	5
MMGT	101	Principles of Management	5
MMGT	211	Marketing	5
		Total	**15**

48 credits are required for the Certificate

1 May substitute ENGL& 101.

2 May substitute MATH 090 or above.

SOCIAL MEDIA MARKETING: SFCC

Social Media Marketing
Certificate

The primary goal of this certificate is to provide students with a working knowledge and hands on experience in the field of social media marketing. This certificate is designed for both incumbent workers who are looking to update their marketing, public relations, and advertising skills; and students seeking a position in the field of social media marketing.

First Quarter

MMGT	125	Social Media Marketing	5
MMGT	126	Search Engine Marketing	5
		Total	**10**

Second Quarter

MMGT	128	Social Media Marketing Campaign	5
		Total	**5**

15 credits are required for the Certificate

SOCIAL SERVICES: SFCC

Gerontology Certificate
Certificate

The one–year certificate program is an option for those who have another degree and wish to increase their gerontology skills. Education in gerontology may be used as a support base for many helping professions. This area of study is also a resource for launching second and third careers.

First Quarter

BUS	122	Practical Business Math [1]	3
ENGL&	101	English Composition I	5
HS	136	Improving Interpersonal Communication	5
HS	281	Practicum I	5
		Total	**18**

Second Quarter

HS	282	Practicum II	5
HSGER	101	Introduction to Social Gerontology	5
HSGER	110	Leisure, Learning, and Living	5
		Total	**15**

Third Quarter

HSGER	115	Multi-Cultural Perspectives in Human Services	5
HSGER	201	Aging and Personality	5
HSGER	250	Death, Loss and Grief	5
		Total	**15**

48 credits are required for the Certificate

1 or any MATH course approved by the program advisor.

Social Services Gerontology
Associate in Applied Science

The Social Services Gerontology program is designed for those who plan to seek employment in social services upon completion of the two–year program, or who wish to transfer to a four–year institution and complete a bachelor's degree.

The Social Services Gerontology program leads to: an associate in applied science (AAS) degree that is for those who wish to transfer to a four–year college or seek employment in social services upon completion of the two–year program.

Those who have completed the AAS program will have acquired the necessary skills to work in various public and private social services programs. This degree also can serve as a transfer degree to four–year colleges. See program adviser for more information.

First Quarter

HS	102	Introduction to Human Services	5

HSGER	101	Introduction to Social Gerontology [7]	5
HSGER	110	Leisure, Learning, and Living [3]	5
		Total	**15**

Second Quarter

HSGER	115	Multi-Cultural Perspectives in Human Services [6]	5
HSGER	250	Death, Loss and Grief [5]	5
		HS / HSGER Elective	5
		Total	**15**

Third Quarter

HS	115	Social Policy [3]	5
HS	131	Human Services Seminar I [2]	5
HSGER	210	Aging and Mental Health [4]	5
		Total	**15**

Fourth Quarter

BUS	123	Practical Business Math Applications	5
HS	105	Child Abuse [3]	5
HS	281	Practicum I	5
		Total	**15**

Fifth Quarter

ENGL&	101	English Composition I	5
PSYC&	100	General Psychology	5
		HS / HSGER Elective	5
		Total	**15**

Sixth Quarter

HS	131	Human Services Seminar I [2]	5
		General Education Elective [1]	5
		HS / HSGER Elective	5
		Total	**15**

90 credits are required for the Associate in Applied Science

HS / HSGER Elective

HS	105	Child Abuse	5
HS	115	Social Policy	5
HS	221	Treatment Theories in Human Services	5
HS	282	Practicum II	5
HS	283	Practicum III	5
HSGER	110	Leisure, Learning, and Living	5
HSGER	115	Multi-Cultural Perspectives in Human Services	5
HSGER	201	Aging and Personality	5
HSGER	221	Counseling the Aging	5

1 See your Academic Adviser.

2 or HS 132 Human Services Seminar II– Students are required to take a total of 10 credits in a HS Seminar class in order to graduate with the Social Services Gerontology AAS degree. Students can take HS 131 and/or HS 132. These classes are generally scheduled in spring quarter each academic year. Students should register for a seminar class each spring quarter. HS 131 can be repeated for up to 10 credits.

3 or HS / HSGER Elective

4 or HSGER 221 Counseling the Aging

5 or HSGER 101 Introduction to Social Gerontology

6 or HSGER 210 Aging and Mental Health

7 or HSGER 250 Death, Loss and Grief

SOFTWARE DEVELOPMENT: SCC

.Net Developer
Certificate

The software development program trains students in current web and desktop application development using diverse industry technologies. Software development is an evolving field of study requiring continuing education and the ability to adapt to constant change. Graduates from this program acquire problem solving skills, are encouraged to work independently and as a team, and be ethical in all interactions.

Students must maintain a grade of 2.0 in each class.

Courses

CIS	126	DBMS/SQL	5
CIS	256	C#	5
CIS	258	ASP.NET	5
		Total	**15**

15 credits are required for the Certificate

Android Mobile Development
Certificate

The software development program trains students in current web and desktop application development using diverse industry technologies. Software development is an evolving field of study requiring continuing education and the ability to adapt to constant change. Graduates from this program acquire problem solving skills, are encouraged to work independently and as a team, and be ethical in all interactions.

Students must maintain a grade of 2.0 in each class.

Courses

CIS	217	Mobile Development I	5
CIS	218	Mobile Development II	5
CIS	219	Mobile Development III	5
		Total	**15**

15 credits are required for the Certificate

Computer Science
Certificate

The software development program trains students in current web and desktop application development using diverse industry technologies. Software development is an evolving field of study requiring continuing education and the ability to adapt to constant change. Graduates from this program acquire problem solving skills, are encouraged to work independently and as a team, and be ethical in all interactions.

Students must maintain a grade of 2.0 in each class.

Courses

CIS	146	Introduction to Programming/VB	5
CIS	282	Programming I - Ruby	5
CIS	283	Programming II - Ruby	5
		Total	**15**

15 credits are required for the Certificate

IOS Mobile Development
Certificate

The software development program trains students in current web and desktop application development using diverse industry technologies. Software development is an evolving field of study requiring continuing education and the ability to adapt to constant change. Graduates from this program acquire problem solving skills, are encouraged to work independently and as a team, and be ethical in all interactions.

Students must maintain a grade of 2.0 in each class.

Courses

CIS	217	Mobile Development I	5
CIS	221	Mobile IV-IOS 1	5
CIS	222	Mobile V-IOS 2	2
		Total	**12**

12 credits are required for the Certificate

Mobile Health Software Development
Certificate

The software development program trains students in current web and desktop application development using diverse industry technologies. Software development is an evolving field of study requiring continuing education and the ability to adapt to constant change. Graduates from this program acquire problem solving skills, are encouraged to work independently and as a team, and be ethical in all interactions.

Students must maintain a grade of 2.0 in each class.

First Quarter

CIS	217	Mobile Development I	5
CIS	218	Mobile Development II	5
CIS	219	Mobile Development III	5
		Total	**15**

Second Quarter

HIM	219	Healthcare Environment and Professional Skills	5
HIM	220	Health Technology Environment and Security	5
HIM	221	HIMS Systems Analysis, Implementation and Maintenance	5
		Total	**15**

30 credits are required for the Certificate

Software Development
Associate in Applied Science

The software development program trains students in current web and desktop application development using diverse industry technologies. Software development is an evolving field of study requiring continuing education and the ability to adapt to constant change. Graduates from this program acquire problem solving skills, are encouraged to work independently and as a team, and be ethical in all interactions.

Students must maintain a grade of 2.0 in each class.

First Quarter

CIS	107	Software Math	2
CIS	108	Computer Math	3
CIS	111	HTML5/CSS I	5
CIS	112	Web Graphics with Photoshop	3
CIS	146	Introduction to Programming/VB	5
		Total	**18**

Second Quarter

CIS	126	DBMS/SQL	5
CIS	130	HTML5/CSS II	5
CIS	282	Programming I - Ruby	5
ENGL&	101	English Composition I	5
		Total	**20**

Third Quarter

CIS	114	JavaScript/jQuery	5
CIS	256	C#	5
CIS	283	Programming II - Ruby	5
CMST&	210	Interpersonal Communication	5
		Total	**20**

Fourth Quarter

CIS	217	Mobile Development I	5
CIS	230	PHP Programming	5
CIS	284	Ruby on Rails	5
		Total	**15**

Fifth Quarter

CIS	218	Mobile Development II	5
CIS	221	Mobile IV-IOS 1	5
CIS	258	ASP.NET	5
CIS	272	Agile Software Development	5
		Total	**20**

Sixth Quarter

BT	160	Job Preparation Techniques	3
CIS	219	Mobile Development III	5
CIS	222	Mobile V-IOS 2	2
CIS	259	Advanced .NET	5
		Total	**15**

108 credits are required for the Associate in Applied Science

Web Design
Certificate

The software development program trains students in current web and desktop application development using diverse industry technologies. Software development is an evolving field of study requiring continuing education and the ability to adapt to constant change. Graduates from this program acquire problem solving skills, are encouraged to work independently and as a team, and be ethical in all interactions.

Students must maintain a grade of 2.0 in each class.

Courses

CIS	111	HTML5/CSS I	5
CIS	112	Web Graphics with Photoshop	3
CIS	130	HTML5/CSS II	5
CIS	146	Introduction to Programming/VB	5
		Total	**18**

18 credits are required for the Certificate

Web Developer
Certificate

The software development program trains students in current web and desktop application development using diverse industry technologies. Software development is an evolving field of study requiring continuing education and the ability to adapt to constant change. Graduates from this program acquire problem solving skills, are encouraged to work independently and as a team, and be ethical in all interactions.

Students must maintain a grade of 2.0 in each class.

Courses

CIS	114	JavaScript/jQuery	5
CIS	258	ASP.NET	5
CIS	272	Agile Software Development	5
CIS	284	Ruby on Rails	5
		Total	**20**

20 credits are required for the Certificate

SURGICAL TECHNOLOGY: SCC

Surgical Technology
Associate in Applied Science

The Surgical Technology program prepares students to function in cooperation with the surgeon and nurses in the operating room performing duties that are vital for the safety and care of surgical patients. Students must have knowledge and skills in surgical aseptic techniques for preparation and use of materials during a surgical procedure. Students also must be able to relate to patients and other people in the field. Using reasonable judgment when working in emergency surgical situations is required.

At the completion of the program, students will be able to accept the responsibility expected of the surgical technologist as a beginning staff employee in the operating room. Prior to graduation, students will sit for the National Certifying Examination for Surgical Technologists for qualification as a certified surgical technologist (CST).

The Surgical Technology program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the National Board of Surgical Technology and Surgical Assisting (www.nbstsa.org). The National Board of Surgical Technology and Surgical Assisting (NBSTSA) 6 West Dry Creek Circle, Ste. 100 Littleton, CO 80120 Toll Free: 1–800–707–0057 FAX: 303–325–2536. Commission on Accreditation of Allied Health Education Programs (CAAHEP) 25400 US Highway 19 N., Suite 158, Clearwater, FL 33763; (707) 210–2350, www.caahep.org

Admission Requirements:

- High school diploma or GED certificate
- Appropriate math score
- Self–place into English
- Computer skills required
- Active e–mail account required
- Prerequisites: BIOL 160, MATH 092, CIS 110

Pre–program wait list requirement:
Prior to acceptance on the Surgical Technology program wait list students must complete a satisfactory criminal background check (completed annually). This process is completely on–line and can be done through True–Hire at: https://truhire.secure–screening.net/escreening/OApp_LoginEntrance.asp?mode=direct&code=008002. Enter your name and email address. Select the "PreSurgical Tech Program" option on the drop down. Enter in your information as directed in the link. Please carefully enter all information especially your drivers' license number and social security number. On the last page you will be asked for the credit card payment information. The background check will cost $39, provided that all information given is correct. If an incorrect drivers' license number or social security number is provided we will reach out to you for the correct number and this will be an additional charge of $25 to run the correct information.

- Each required course for graduation must be completed with a grade of 2.0 or better before proceeding to the next quarter.
- A student may repeat a surgical technology class only once, and it must be repeated within two years.
- The Surgical Technology program must be completed within a three–year period.
- The Surgical Technology program is a fall start program. Students are accepted from a wait list.
- Students can enter into the third or fourth quarter only if they qualify for advanced standing and space is available. Students requesting placement into the program in the second year must pass a comprehensive test for each class or take SURG 202, 203 and 206 even if they had previously passed the courses.

Prerequisites

BIOL&	160	General Biology w/Lab
CIS	110	Introduction to Computer Applications
MATH	92	Elementary Algebra II [1]

First Quarter

BIOL&	241	Human A & P 1	5
CMST&	210	Interpersonal Communication	5
HED	125	Medical Terminology	5
SURG	100	Introduction to Surgical Technology	2
SURG	105	Blood-borne Pathogens and HIV/AIDS	1
		Total	**18**

Second Quarter

BIOL&	242	Human A & P 2	5
ENGL&	101	English Composition I	5
SURG	107	Surgical Environment	3
SURG	120	Disease Transmission and Control	3
		Total	**16**

Third Quarter

HED	109	Human Physiology and Disease	5
PHARM	115	Mathematics for Pharmacy Technicians	5
SURG	101	Surgical Procedures	5
SURG	104	Central Service Clinical	1
SURG	111	Technical Skills I	4
		Total	**20**

Fourth Quarter

SURG	202	Surgical Procedures	6
SURG	212	Technical Skills II	4
SURG	254	Operating Room Practicum	2
		Total	**12**

Fifth Quarter

SURG	203	Surgical Procedures	4
SURG	206	Perioperative Care of the Patient	4
SURG	255	Operating Room Practicum	5
		Total	**13**

Sixth Quarter

SURG	250	Surgical Seminar	3
SURG	256	Operating Room Practicum	10
		Total	**13**

92 credits are required for the Associate in Applied Science

[1] MATH 092 may be substituted with MATH 096.

THEATRE: SFCC

Drama
Associate in Fine Arts

The Associate in Fine Arts (AFA) in Drama offers a foundation for students pursuing a four year degree in Drama; either a Bachelor of Arts (BA) or a Bachelor of Fine Arts (BFA). To complete the AFA, students complete fifty credits of drama and fifty credits of General Education Requirements. Courses satisfying General Education Requirements must include CMST& 101 (5 credits); ENGL & 101 (5 credits); ENGL& 102

(or ENGL 114 or ENGL 220) (5 credits); MATH& 107 (5 credits); Social Science (10 credits), Science (10 credits –5 credits must come from a lab science); Humanities (10 credits).

100 Credits are required for the AFA. Transfer institutions with whom Spokane Falls Community College maintains articulation agreements accept a minimum of 90 credits. University Drama departments typically require an audition or portfolio review for admission to Drama programs. Through ensemble acting experience and applied instruction, the AFA provides students the opportunity to audition successfully. Students must maintain a cumulative GPA of 2.0 or better to qualify.

First Quarter

DRMA&	101	Intro to Theatre	5
DRMA	106	Rehearsal and Performance [1]	2
DRMA	120	Performance and Audition Techniques	3
DRMA	230	Stagecrafting Theatrical Design [2]	2
ENGL&	101	English Composition I	5
		Total	**17**

Second Quarter

DRMA	107	Rehearsal and Performance	1
DRMA	121	Contemporary Acting	3
DRMA	230	Stagecrafting Theatrical Design [2]	2
DRMA	233	Makeup	2
MATH&	107	Math in Society	5
PE	106	Yoga Fitness	1
		Total	**14**

Third Quarter

DRMA	108	Rehearsal and Performance	2
DRMA	220	Classical Acting	5
DRMA	230	Stagecrafting Theatrical Design [2]	1
ENGL&	220	Intro to Shakespeare	5
MUSC	170	Singing I: The Voice	1
		Total	**14**

Fourth Quarter

DRMA	106	Rehearsal and Performance	2
DRMA	230	Stagecrafting Theatrical Design [2]	2
		Humanities Group A [5]	5
		Social Science Group A [5]	5
		Total	**14**

Fifth Quarter

CMST&	101	Introduction to Communication	5
DRMA	107	Rehearsal and Performance	2
DRMA	230	Stagecrafting Theatrical Design	1
		Humanities Group B [5]	5
		Science [5]	5
		Total	**18**

Sixth Quarter

DRMA	108	Rehearsal and Performance [1]	2
DRMA	230	Stagecrafting Theatrical Design	1
		Science [5]	5
		Social Science Group B [5]	5
		Total	**13**

90 credits are required for the Associate in Fine Arts

1 A total of 11 credits in DRMA 106, 107, 108, Rehearsal and Performance must be accumulated by the completion of the program over the course of a minimum of four quarters. A minimum of one credit should be taken each quarter in which a student is enrolled. Credit can be accumulated by taking DRMA 106, 107 or 108, but there must be a minimum of one credit in each.

2 A total of 9 credits in DRMA 230 Stagecrafting must be accumulated by completion of the program taken over the course of four quarters.

3 ENGL 102 Composition II may be substituted.

4 MUSC 139 for men or MUSC 140 for women may be substituted.

5 Courses in these areas come from the Associate in Arts Degree Requirements and may be taken in any sequence. A minimum of 5 of the science credits must come from a Lab Science. Courses should be selected based on your transfer destination and in consultation with an academic adviser in Drama.

TRUCK DRIVER TRAINING (CDL): SCC

Professional Truck Driver Training
Certificate

This program exceeds current Federal and State regulations providing classroom and on–the–road training for Class A combination vehicles. This 12 credit training course is offered each quarter for students to gain the required knowledge and skills in order to prepare for the Class A Commercial Driver's License (CDL).

Program Prerequisites:

- Prior to the start of the course, students must be 18 years of age or older
- Must have met the Department of Transportation's certified physical and drug test requirements
- Carry a valid driver's license from the state in which the student resides
- Obtain a motor vehicle or valid driving record for the last three–year period

First Quarter

HEQ	101	Commercial Driver's License Theory	6
HEQ	102	Commercial Driver's License Applications	6
		Total	**12**

12 credits are required for the Certificate

VASCULAR TECHNOLOGY: SCC

Vascular Technology
Associate in Applied Science

Vascular Technology is an Allied Health profession in which practitioners perform diagnostic and monitoring procedures using sound waves. The vascular sonographer performs examinations at the request or direction of a physician. Through subjective sampling and/or recording, the vascular sonographer proceeds with the examination to create an easily definable foundation of data from which a correct anatomic and physiologic diagnosis may be established for each patient.

The various types of ultrasound imaging equipment require a highly skilled sonographer to obtain the imaging information or other data required. The vascular sonographer must obtain appropriate history, physical findings, and pertinent laboratory data to adapt the imaging techniques to obtain comprehensive and diagnostic information.

The Vascular Technology program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Joint Review Committee for Cardiovascular Technology (www.jrccvt.org), JRC–CVT, 6 Pine Knoll Drive, Beverly, MA 01915–1425; (978) 456–5594.

Students within the Vascular Technology program are required to complete a six month, full–time clinical internship. As clinical space is limited in Spokane and the surrounding area, the student may be required to complete their internship in an out–of–town and/or out–of–area medical center.

Admission Recommendations/Requirements:

- Active email account recommended
- Computer skills recommended
- CHEM 120; CHEM& 121; HED 125; PHYS 100; PHYS 120 recommended
- Appropriate math score
- Self–place into English
- Immunizations, and drug screening and Washington State Patrol (WSP) background check are required after being accepted into the program.
- A 2.0 grade must be maintained quarterly in every course before proceeding to the next quarter.
- Students may repeat a professional course once, but it must be repeated within two years.
- High school diploma or GED certificate required
- Interview with vascular technology instructor required

Program Prerequisites:

- All math and science prerequisites must have been completed within the last five years with a grade of 2.0 or better.

Prerequisites

BIOL&	160	General Biology w/Lab	
BIOL&	241	Human A & P 1	
BIOL&	242	Human A & P 2	
CMST	127	Leadership Development	
ENGL&	101	English Composition I	
MATH	99	Intermediate Algebra	

First Quarter

VASC	100	Introduction to Echo and Vascular	2
VASC	112	Vascular Fundamentals	4
VASC	116	Acute Coronary Syndrome	1
VASC	117	Cardiovascular Pharm 1	1
VASC	125	Ultrasound Physics and Instrumentation I	5
VASC	213	Electrophysiology	4
		Total	**17**

Second Quarter

VASC	122	Vascular Procedures I	4
VASC	123	Hemodynamics	2
VASC	124	Cardiovascular Pharm 2	1
VASC	126	Technical Skills/Reading Hemodynamics	1
VASC	127	Technical Skills/Pharmacology	1
VASC	133	ECHO Fundamentals	5
VASC	135	Ultrasound Physics and Instrumentation II	5
		Total	**19**

Third Quarter

VASC	131	Core Concepts in Vasc	2
VASC	132	Vascular Procedures II	6
VASC	134	Vascular Technical Skills I	2
VASC	136	Comparative Imaging Analysis	3
VASC	138	Cardiovascular Physiology	4
		Total	**17**

Fourth Quarter

VASC	139	Surgical Asepsis	1
VASC	140	Technical Skills/Surgical Asepsis	1
VASC	141	Data Collection and Presentation	3
VASC	142	Survey of Diagnostic Medical Sonography	3
VASC	143	Vascular Screening Simulation	4
VASC	144	Vascular Screening Seminar	2
		Total	**14**

Fifth Quarter

VASC	251	Vascular Technical Skills	4
VASC	252	Advanced Vascular Techniques	7
VASC	253	Vascular Clinical I	2
VASC	254	Vascular Clinical Preparation	2
VASC	255	Research Methods and Biostatistics	3
VASC	256	Cardiovascular Pathophysiology	1
		Total	**19**

Sixth Quarter

VASC	262	Vascular Clinical II	14
		Total	**14**

Seventh Quarter

VASC	272	Vascular Clinical III	14
		Total	**14**

114 credits are required for the Associate in Applied Science

WATER RESOURCES MANAGEMENT: SCC

Water and Wastewater
Associate in Applied Science

The Water Resources Technology program is designed to prepare students for positions in hydrology and water quality for local, state and federal agencies, and private industry.

The Water Resources Technology Water and Wastewater option is designed to prepare students for positions in public and private water and wastewater operations facilities.

First Quarter

ENGL&	101	English Composition I [4]	5
ENVS&	101	Intro to Env Science [2]	5
NATRS	112	Natural Resources Mathematical Applications [1]	5
NATRS	120	Basic Computer Applications in Natural Resources	2
WATER	128	Occupational Preparation and Experience	1
WATER	131	Hydrologic Field Projects [3]	1
		Total	**19**

Second Quarter

NATRS	122	Natural Resources Trigonometric Applications [1]	5
NATRS	204	Maps and Aerial Photo Interpretation	5
WATER	109	Introduction to Water Resources	5
WATER	129	Occupational Preparation and Experience	1
WATER	132	Hydrologic Field Projects [3]	1
		Total	**17**

Third Quarter

ENVS	220	Introduction to Geographic Information Systems for Natural Resources [5]	5
ENVS	232	Applied Research in Hydrology [6]	3
NATRS	230	Global Positioning Systems	3
WATER	135	Pumps, Pipes, Hydrants, and Valves	3
WATER	210	Hydrologic Measurement	3
		Total	**17**

Fourth Quarter

ENVS	211	Weather and Climate	5
ENVS	234	Applied Research in Water/Wastewater Operations	3
WATER	208	Water Data and Records Analysis	3
WATER	211	Water and Wastewater Regulations	3
WATER	228	Occupational Preparation and Experience	1
		Total	**15**

Fifth Quarter

ENVS	233	Applied Research in Water Quality [6]	3
WATER	110	Hydrogeology	5
WATER	209	Water Quality	5
WATER	229	Occupational Preparation and Experience	1
		Total	**14**

Sixth Quarter

ENVS	231	Applied Research in Geographic Information Systems [6]	3
ENVS	233	Applied Research in Water Quality	3
ENVS	234	Applied Research in Water/Wastewater Operations [6]	3
WATER	212	Water Rights and Laws	5
		Total	**14**

96 credits are required for the Associate in Applied Science

1 Must be completed with a 2.0 or higher before advancing to NATRS 122.
2 May be substituted with GEOL& 101 or CHEM 115.
3 Students are required to complete a minimum of 2 of the 6 hydrologic projects (WATER 131, 132, 133, 231, 232, 233).
4 May be substituted with WATER 120.
5 Must be completed with a 2.0 or higher before advancing to NATRS 221.
6 Students are required to complete a total of 18 credits of Applied Research courses (ENVS 231, 232, 233, 234).

Water Resources Technologies in Geographic Information Systems
Certificate

The Water Resources Technology program is designed to prepare students for positions in hydrology and water quality for local, state and federal agencies, and private industry.

The Water Resources Technology Water and Wastewater option is designed to prepare students for positions in public and private water and wastewater operations facilities.

Courses

		Applied Research in Geographic Systems	3
		Water Resources Electives	3
		Total	**6**

First Quarter

NATRS	112	Natural Resources Mathematical Applications [1]	5
NATRS	120	Basic Computer Applications in Natural Resources	2
		Total	**7**

Second Quarter

ENVS	220	Introduction to Geographic Information Systems for Natural Resources [2]	5
NATRS	204	Maps and Aerial Photo Interpretation	5
		Total	**10**

Third Quarter

NATRS	221	Applications in Geographic Information Systems [3]	4
NATRS	230	Global Positioning Systems	3
		Total	**7**

30 credits are required for the Certificate

Applied Research in Geographic Systems

ENVS	231	Applied Research in Geographic Information Systems	1-12

Water Resources Electives

ENVS	231	Applied Research in Geographic Information Systems	1-12
ENVS	232	Applied Research in Hydrology	1-12
ENVS	233	Applied Research in Water Quality	1-12
ENVS	234	Applied Research in Water/Wastewater Operations	1-12
ENVS	235	Applied Research in Watershed Restoration	1-12
WATER	210	Hydrologic Measurement	3

1 This related education requirement may be met by any course or combination of courses approved by the instructional dean. NATRS 112 must be completed with a 2.0 or higher.
2 ENVS 220 must be completed with a 2.0 or higher.
3 NATRS 221 must be completed with a 2.0

Water Resources Technology
Associate in Applied Science

The Water Resources Technology program is designed to prepare students for positions in hydrology and water quality for local, state and federal agencies, and private industry.

The Water Resources Technology Water and Wastewater option is designed to prepare students for positions in public and private water and wastewater operations facilities.

First Quarter

ENGL&	101	English Composition I [4]	5
ENVS&	101	Intro to Env Science [2]	5
NATRS	112	Natural Resources Mathematical Applications [1]	5
NATRS	120	Basic Computer Applications in Natural Resources	2
WATER	128	Occupational Preparation and Experience	1
WATER	131	Hydrologic Field Projects [3]	1
		Total	**19**

Second Quarter

NATRS	122	Natural Resources Trigonometric Applications	5
NATRS	204	Maps and Aerial Photo Interpretation	5
WATER	109	Introduction to Water Resources	5
WATER	129	Occupational Preparation and Experience	1
WATER	132	Hydrologic Field Projects [3]	1
		Total	**17**

Third Quarter

ENVS	220	Introduction to Geographic Information Systems for Natural Resources [5]	5
ENVS	232	Applied Research in Hydrology [6]	3
NATRS	230	Global Positioning Systems	3
WATER	205	Differential Leveling	3
WATER	210	Hydrologic Measurement	3
		Total	**17**

Fourth Quarter

ENVS	219	Freshwater Ecology	5
ENVS	226	Fisheries Techniques	4
ENVS	232	Applied Research in Hydrology [6]	3
WATER	208	Water Data and Records Analysis	3
WATER	228	Occupational Preparation and Experience	1
		Total	**16**

Fifth Quarter

ENVS	233	Applied Research in Water Quality [6]	3
NATRS	221	Applications in Geographic Information Systems	4
WATER	110	Hydrogeology	5
WATER	209	Water Quality	5
WATER	229	Occupational Preparation and Experience	1
		Total	**18**

Sixth Quarter

ENVS	211	Weather and Climate	5
ENVS	231	Applied Research in Geographic Information Systems [6]	3
ENVS	233	Applied Research in Water Quality [6]	3
ENVS	235	Applied Research in Watershed Restoration [6]	3
WATER	212	Water Rights and Laws	5
		Total	**19**

106 credits are required for the Associate in Applied Science

1 Must be completed with a 2.0 or higher before advancing to NATRS 122.
2 May be substituted with GEOL& 101 or CHEM 115.
3 Students are required to complete a minimum of 2 of the 6 hydrologic projects (WATER 131, 132, 133, 231, 232, 233).
4 May be substituted with WATER 120.
5 Must be completed with a 2.0 or higher before advancing to NATRS 221.
6 Students are required to complete a total of 18 credits of Applied Research courses (ENVS 231, 232, 233, 234, 235).

WELDING AND FABRICATION: SCC

Welding and Fabrication Certificate

Welding is one of the most common and dependable methods of joining materials together. Fabrication is the process of blueprint reading, layout, cutting and preparing materials for assembly.

The competency–based Welding and Fabrication program trains the student in the safe and correct procedures used in shielded metal–arc welding, oxy–acetylene welding, MIG and TIG welding, and air arc and plasma cutting. Course content also includes the safe use and care of hand and power equipment found in welding and fabrication shops. Some of the equipment includes overhead cranes, grinders, power saws, ironworker, cold saws and drill presses.

The student will be prepared for entry into many trade and industry opportunities, including construction, aerospace, automotive, heavy equipment, machinist, ship building and agriculture. This is only a small cross–section of job opportunities available to the student who successfully completes the program.

First Quarter

APLED	123	Leadership Skills for Business and Industry [1]	4
WELD	113	Welding Math	1
WELD	114	Introduction to Blueprint Reading	2
WELD	115	Introduction to Fabrication	3
WELD	116	Shielded Metal Arc Welding Theory	3
WELD	117	Shielded Metal Arc Welding Applications [2]	7
		Total	**20**

Second Quarter

APLED	125	Employment Preparation [1]	3
WELD	121	Intermediate Welding Math	1
WELD	123	Intermediate Blueprint Reading	2
WELD	124	Advanced Shielded Metal Arc Welding Theory	3
WELD	125	Advanced Shielded Metal Arc Welding Applications	1-7
WELD	126	Intermediate Fabrication	3
WELD	127	Fabrication Machine Operation	2
		Total	**15–21**

Third Quarter

WELD	131	Advanced Welding Math	1
WELD	133	Advanced Blueprint Reading	2
WELD	134	Specialty Welding Theory	3
WELD	135	Specialty Welding Applications	1-7
WELD	136	Advanced Fabrication	3
		Total	**10–16**

Fourth Quarter

		Optional Summer Welding Courses [3]	0-15
		Total	**0–15**

45-72 credits are required for the Certificate

Optional Summer Welding Courses

WELD	143	Specialized Blueprint	2
WELD	144	Specialized Theory	3
WELD	145	Specialized Fabrication	3
WELD	146	Specialized Welding	1-7

1 This related education requirement may be met by any course or combination of courses approved by the instructional dean.
2 WELD 117, 1–7 credits may be applied using prior learning experience.
3 WELD 143,144,145, and 146 for Welding and Fabrication students desiring to receive additional specialized training may be taken during the summer quarter. Instructor permission required. Completion of these courses will entitle the student to a certificate of completion issued by the dean of instruction for Technical Education.

Program / Course Abbreviations

ABF Automotive Collision and Refinishing Technician
ACCT Accounting
AGGEN Agriculture, General
AGHRT Agriculture/Horticulture
AIRC Heating, Ventilation, Air Conditioning and Refrigeration
ANTH Anthropology
APLED Applied Education
APM Aerospace Apprenticeship
AQUAT Aquatics
ARCFT Aviation Maintenance Technology
ARCHT Architectural Technology
ART Art
AS Addiction Studies
ASL American Sign Language
ASTR Astronomy
AUDIO Audio Engineering
AUTO Automotive Technology
AVIO Avionics
BAK Baking: Professional Pastries and Specialty Cakes
BIOEQ Biomedical Equipment Technician
BIOL Biology
BMGT Business Management
BOT Botany
BT Business Technology
BUS Business, General
CAD CAD Design and Drafting
CAPPS Computing-Computer Applications
CATT Computer Application Technology Training
CHEM Chemistry
CHIN Chinese
CIS Computer Information Systems
CJ Criminal Justice
CJPE Criminal Justice Physical Education
CMST Communication Studies
COOP Cooperative Education
COS Cosmetology
CS Computing-Computer Science
CUL Culinary Arts
CYBR Cyber Security
DENT Dental Assisting
DRMA Drama
ECED Early Childhood Education
ECHO Echocardiography
ECON Economics
EDUC Education Paraprofessional, Special Education
ELECT Electronics Engineering Technician
ELMT Electrical Maintenance and Automation
EMS Emergency Medical Services
ENGL English
ENGR Engineering
ENVS Environmental Sciences
FILM Film
FLPT Hydraulic and Pneumatic Automation Technician
FMT Health/Fitness Technician
FOD Fire Officer
FRCH French
FS Fire Science Technology
GENST General Studies
GEOG Geography
GEOL Geology
GOVT Government, Student
GRDSN Graphic Design
GUID Guidance
HED Health Education
HEQ Diesel/Heavy Duty Equipment
HIM Health Information Management
HIS Hearing Instrument Specialist
HIST History
HLTH Health
HM Hotel and Restaurant Management
HS Human Services
HSGER Gerontology Paraprofessional
HUM Humanities
IBE Integrated Business and Entrepreneurship Program
ICT Invasive Cardiovascular Technology
IMMA Industrial Maintenance Mechanic
INTDS Interior Design
IS Computing-Information Systems
ISIT Information Systems and Technology
ITP Interpreter Training Program
JAPN Japanese
JOURN Journalism
LA Paralegal
LMLIB Library and Information Services
LSEC Legal Administrative Assistant
MA Medical Assistant
MACH Machinist/CNC Technology
MATH Mathematics
MILSC Military Science
MMGT Management
MSEC Medical Office Specialist
MUSC Music
MUSPL Music Private Lessons
NATRS Natural Resource Management
NURS Nursing
NUTRI Nutrition
OCEA Oceanography
OR-PR Orthotic-Prosthetic Technician
OTA Occupational Therapy Assistant
PE Physical Education
PHARM Pharmacy Technician
PHIL Philosophy
PHOTO Photography
PHYS Physics
PMF Precision Metal Fabrication
POLS Political Science
PSYC Psychology
PTA Physical Therapist Assistant
RAD Radiology Technology
RT Respiratory Care
SOC Sociology
SONO Diagnostic Medical Sonography
SPAN Spanish
SURG Surgical Technology
UTIL Utility Construction
VASC Vascular Technology
WATER Water Resources Technology
WELD Welding and Fabrication
ZOOL Zoology

Course Descriptions

For the most current information on individual courses, view our course descriptions online at:
catalog.spokane.edu/CoursesAndPrograms

ACCOUNTING

ACCT 103 - Fundamental Bookkeeping Procedures (3 cr)
This course is an introduction to fundamental bookkeeping for a sole proprietorship. It focuses on learning how and when to record transactions and how and when to prepare financial statements. (SFCC, SCC)

ACCT 121 - Payroll Procedures (3 cr)
This course enables students to properly prepare, file and report quarterly payroll taxes; to prepare all necessary journal entries for payroll expenses; and to prepare all necessary end-of-year reports for payroll. Prerequisite: ACCT 103 or permission of instructor. (SCC)

ACCT 122 - Business Tax Accounting (1 cr)
This course enables students to understand and account for the additional taxes (other than income taxes) paid by business in Washington state, Spokane County and the City of Spokane. Prerequisite: ACCT 103 or permission of instructor. (SCC)

ACCT 140 - QuickBooks (2-5 cr)
Formerly ACCT 141. This course offers a practical approach to computerized accounting using QuickBooks Pro. Students are exposed to basic setup and entry of daily accounting transactions and learn to manage revenue and expense accounts, payroll, inventory, bank reconciliation, and year-end procedures. This course does not fulfill the requirements for students majoring in accounting. (SFCC)

ACCT 141 - QuickBooks (1-5 cr)
This course offers a practical approach to computerized accounting using QuickBooks Pro. Students are exposed to basic setup and entry of daily accounting transactions and learn to manage revenue and expense accounts, payroll, inventory, bank reconciliation, and year-end procedures. This course does not fulfill the requirements for students majoring in accounting. (SCC)

ACCT 142 - Advanced QuickBooks (1-5 cr)
This course offers a practical approach to computerized accounting using QuickBooks Pro. Students are exposed to advanced setup for service and merchandising companies. Processing quarterly payroll including, preparation of quarterly tax reports, tax transmittals and W2 forms are addressed. This course does not fulfill requirements for students majoring in accounting. Prerequisite: ACCT 141 or permission of instructor. (SCC)

ACCT 151 - College Accounting I (5 cr)
Students learn the basic concepts of accounting for office, sales and small business personnel. The basic accounting cycle, use of general journals, worksheets, adjusting and closing entries, and complete financial statement preparation are emphasized. Payroll processing and employer payroll tax calculations, and reporting also are covered. These courses must be taken in sequence. These courses do not fulfill requirements for students majoring in accounting. (SCC)

ACCT 152 - College Accounting II (5 cr)
Students learn the basic concepts of accounting for office, sales and small business personnel. The basic accounting cycle, use of general journals, worksheets, adjusting and closing entries, and complete financial statement preparation are emphasized. Payroll processing and employer payroll tax calculations, and reporting also are covered. These courses must be taken in sequence. These courses do not fulfill requirements for students majoring in accounting. (SCC)

ACCT 161 - Payroll Procedures (4 cr)
This course enables students to properly prepare, file and report quarterly payroll taxes; prepare all necessary journal entries for payroll expenses; and prepare all essential end-of-the-year reports for payroll. Prerequisite: ACCT 151, ACCT& 201 or permission of instructor. (SCC)

ACCT 162 - Business Tax Accounting (1 cr)
This course enables students to understand and account for the additional taxes (other than income taxes) paid by businesses in Washington State, Spokane County and the City of Spokane. Prerequisite: SCC: ACCT 151, ACCT& 201 or permission of instructor. (SCC)

ACCT& 201 - Prin of Accounting I (5 cr)
An introduction to the fundamentals of accounting, with application to sole proprietorship, partnership and corporate forms of business organization. Must be taken in sequence. (SCC, SFCC)

ACCT& 202 - Prin of Accounting II (5 cr)
An introduction to the fundamentals of accounting, with application to sole proprietorship, partnership and corporate forms of business organization. Must be taken in sequence. Prerequisite: A grade of 2.0 or better in ACCT& 201 or permission of instructor. (SCC, SFCC)

ACCT& 203 - Prin of Accounting III (5 cr)
Students learn presentation and interpretation of financial data for managerial use. Applications of accounting output to managerial control and planning are emphasized. Prerequisite: ACCT& 201 or permission of instructor. (SCC, SFCC)

ACCT 204 - Accounting Integration (5 cr)
Students develop an understanding of the accounting information system, sales and acquisition cycles, internal controls, accounting fraud, accounting for not-for-profit organizations as well as federal taxation and tax return preparation. Prerequisite: ACCT& 201, ACCT 151 or permission of instructor. (SCC)

ACCT 212 - Accounting Applications and Analysis (5 cr)
Students learn a more in depth study of specific topics including accounting for property, plant and equipment (fixed assets), natural resources, intangible assets, accounting issues of partnerships, corporations, statements of cash flows, financial statement analysis and managerial accounting. Financial statement preparation and analysis are emphasized. This course does not fulfill requirements for accounting transfer students. Prerequisite: ACCT 152 or ACCT& 202. (SCC)

ACCT 219 - Payroll and Business Taxes (5 cr)
This course is designed to give students a thorough understanding of the most common taxes (other than income taxes) paid by businesses in the states of Idaho and Washington, Spokane County and the City of Spokane. Emphasis will be placed on manual and computerized payroll preparation, understanding the difference between an employee and an independent contractor, and determining when it's necessary to file 1099 forms and the Combined Excise Tax Return form. Current rates and forms will be used. (SFCC)

ACCT 221 - Tax I: Individual Income Tax (5 cr)
This course covers the tax concepts that affect most individuals. At the completion of this course, students will be able to prepare a 1040EZ, 1040A, and 1040 form using Federal tax forms and/or tax software. Students will recognize the social, economic, and political factors that Congress considers when they create tax law. Students will also be able to utilize tax planning skills for preparing current and future tax returns. (SCC)

ACCT 222 - Tax II: Taxation of Corporations, Partnerships and S Corps (5 cr)
This course introduces the tax issues facing corporations, partnerships, and S corporations. This course emphasizes the tax code and regulations that relate to these entities, and it examines the transactions that most commonly affect them. In addition, this course assists students in preparing to sit for the IRS Enrolled Agent Exam. Prerequisite: ACCT 221. (SCC)

ACCT 288 - Cooperative Education Work Experience (No Seminar) (1-18 cr)
For course description, see Cooperative Education. (SCC)

ACCT 320 - Accounting and Finance for Managers (5 cr)
This course covers accounting theory, accounting language, and financial management principles with an emphasis from a manager's perspective. Topics include: balance sheets, income statements, and statements of cash flows, financial statement analysis, cost behavior, capital budgeting, analysis of financial statements for planning and control, cash and capital budgeting, risk and return, capital structure, time value of money, and financing for both short and long-term requirements. Each student will complete a project designed to integrate course topics into a business project. Prerequisite: MATH 300 and acceptance into an SFCC BAS degree program. (SFCC)

ADDICTION STUDIES

AS 131 - Survey of Addictions (5 cr)
This introductory course explores the nature and scope of alcohol/drug use, abuse, and addiction as well as problems with compulsive behaviors. Basic drug categories and effects are studied. The evolution of social policy, culture, and impacts upon vulnerable populations and the prevention, intervention and treatment are discussed. The basic steps necessary to become a Chemical Dependency Professional in the state of Washington are described. (SFCC)

AS 141 - Law, Ethics, and Professional Development for Addiction Counseling (5 cr)
This course is designed to meet the Chemical Dependency Professional educational requirements regarding legal, ethical, and professional development outlined in WAC 246-811-030 (2) (s) through (w). The framework for this course will examine federal and State of Washington rules and regulations. Professional organizations licensing/certification and agency policy and procedures will be explored to demonstrate the laws, ethics, and professional practice within the addictions profession. (SFCC)

AS 172 - Family Systems and Adolescent Treatment in Addictions (5 cr)
This course will examine competencies outlined by the Substance Abuse and Mental Health Services Administration (SAMHSA), which specifically involve the family and other systems in the addiction treatment process. This course will also examine adolescent treatment issues in the context of family systems and the dynamics of addiction. An overview of Structural, Functional, and System approaches will be explored, including family roles and the interrelationship between family dynamics, multi-generational transmission, and developmental information will be applied to the treatment of addictions. Evidence based treatment models for families and adolescents will be emphasized. (SFCC)

AS 176 - Addiction Counseling Techniques (5 cr)
This is an experiential course on techniques used in counseling. The student is exposed to basic counseling skills, strategies employed in chemical dependency treatment, counseling techniques used in addressing treatment needs and techniques used for removing blocks to recovery. Specific techniques are demonstrated and practiced that are appropriate for a variety of populations. (SFCC)

AS 182 - Cultural Diversity; Risk Intervention for Health/HIV (5 cr)
This course provides foundational information about multicultural perspectives as well as culturally sensitive counseling dynamics. The emphasis will be on the development of knowledge and skills regarding addiction and health concerns, appropriate intervention and treatment methodologies for working in a diverse society. This course will also focus on preventing infectious diseases and how to address and support individuals with infectious diseases, particularly HIV. A primary critical task is the examination of one's own attitudes and values. (SFCC)

AS 221 - Treatment Theories for Addictions (5 cr)
This course addresses the constructs, underlying principles, theories, practices and desired outcomes of the most generally accepted and scientifically supported models of treatment for addiction and other substance related problems. (SFCC)

AS 250 - NAADAC Exam Prep (1 cr)
This course is designed to prepare students for the national exam required to become a Chemical Dependency Professional once they have fulfilled other supervision and education requirements. It is not necessary, however, for students to have taken other SFCC Addiction Studies classes. The course is designed to be open to all those interested in preparing for the NAADAC exam. (SFCC)

AS 275 - Physiological Actions of Alcohol and Drugs (5 cr)
This is a review of the pharmacology of psychoactive drugs. It is a research-based study of all categories of mind-altering substances. (SFCC)

AS 277 - Group Facilitation for Addiction Treatment (5 cr)
This course is designed to offer students the basic knowledge and practice to facilitate group counseling within the addiction treatment population. A variety of group methods and research will be explored with an emphasis on evidenced based practices. (SFCC)

AS 279 - Case Management I: Screening, Diagnosis, Assessment, and ASAM (5 cr)
The course introduces records management paperwork and application of confidentiality laws, such as CFR 42, and HIPAA laws, which is essential for beginning case managers when entering into the field of addictions. Students will practice diagnosis, placement, and referral of patients through the applications of case studies. This beginning course will prepare the students as they move into Case Management 2. (SFCC)

AS 280 - Case Management 2: Treatment Planning and Continuing Care (5 cr)
Students will utilize the patient information for the case studies they developed in Case Management I to gain knowledge of the process of clinical admittance of patients, the principles of working with Community partners for continuation of care, and the development of patient-centered treatment and continuing care plans. Prerequisite: AS 279 or equivalent. Instructor approval required for equivalent. (SFCC)

AS 281 - Practicum I (5 cr)
The practicum provides appropriate counselor trainee experiences that complement classroom learning and help prepare the students for employment. Students will explore state-approved community treatment agencies and apply for placement with them by developing a resume and cover letter, and interviewing with sites open to student placement. Students will observe and participate in treatment programs, while practicing professional behavior and learning about the organizational dynamics of treatment and community agencies. Prerequisite: AS 279 (SFCC)

AS 282 - Practicum II (5 cr)
This Practicum builds on clinical skills and knowledge begun in Practicum I. The student strengthens his/her capacity to function as a professional by demonstrating consistency in meeting professional competencies. Specific proficiencies, skills, levels of involvement with clients or patients, and scope of practice will vary dependent on the community treatment agency and background of the student. Prerequisite: AS 279 (SFCC)

AS 287 - Survey of Addiction Alternative Training (3 cr)
This introductory course explores the nature and scope of alcohol/drug use, abuse, and addiction as well as problems with compulsive behaviors. Basic drug categories and effects are studied. Prerequisite: Instructor permission required to enroll in course. Students will be required to have a grade of 2.0 or better in each course to graduate from the program. (SFCC)

AS 288 - Law and Ethics for Addiction Alternative Training (2 cr)
This course is designed to meet the Chemical Dependency Professional educational requirements regarding Washington State and Federal legal and ethical requirements outlined in WAC 246-811-030 (2) (s) through (w). Prerequisite: Instructor permission required to enroll in course. Students will be required to have a grade of 2.0 or better in each course to graduate from the program. (SFCC)

AS 289 - Pharmacological and Physiological Actions of Alcohol and Other Drugs Alternative Training (3 cr)
This course presents the pharmacology and physiology of psychoactive drugs. It is a research-based study of mind-altering substances. Prerequisite: Instructor permission required to enroll in course. Students will be required to have a grade of 2.0 or better in each course to graduate from the program. (SFCC)

AS 290 - Co-Occurring Behavioral Health Disorders (5 cr)
The Co-Occurring Behavioral Health Disorders class will focus on clients who have one or more disorders relating to the use of drugs or destructive compulsive behaviors as well as one or more mental health disorders. This class will provide an overview of diagnostic criteria, assessment, medication, specific mental disorders, and the need for linkage between the mental health services system and substance abuse treatment with the goal of dual recovery. (SFCC)

AS 294 - Family and Adolescent Treatment of Addictions Alternative Training (2 cr)
This course presents an overview of Structural, Functional, and System approaches to counseling families with addictions. The treatment of Adolescents with addictions is also studied with emphasis on evidenced based treatment models. Prerequisite: Instructor permission required to enroll in course. Students will be required to have a grade of 2.0 or better in each course to graduate from the program. (SFCC)

AS 295 - American Society of Addiction Medicine Alternative Training (3 cr)
This course examines The American Society of Addiction Medicine (ASAM) criteria, the most widely used guidelines for assessment, service planning, placement, continued stay and discharge of patients with addictive disorders. Prerequisite: Instructor permission required to enroll in course. Students will be required to have a grade of 2.0 or better in each course to graduate from the program. (SFCC)

AS 296 - Treatment of Addictions Individual and Group (2 cr)
This course will examine Treatment of Addictions including individual and group approaches. The evidenced based treatment methods will be focused upon with special emphasis on competencies outlined by the Substance Abuse and Mental Health Services Administration (SAMHSA). This course meets the requirements for Alternative Training WAC 246-811, areas Treatment of Addiction: Individual and group treatment for addiction counseling. Prerequisite: Instructor permission required to enroll in course. Students will be required to have a grade of 2.0 or better in each course to graduate from the program. (SFCC)

AS 297 - BRI for HIV and Addictions (1 cr)
The State of Washington's Educational Requirements for Chemical Dependency Professionals are outlined in WAC 246-811-030. This course meets the requirement for: (g) HIV/AIDS brief risk intervention for the chemically dependent. Prerequisite: Instructor permission required to enroll in course. Students will be required to have a grade of 2.0 or better in each course to graduate from the program. (SFCC)

AS 298 - Cultural Diversity for Addictions 1 (1-2 cr)
This course meets the requirement for Alternative Training WAC 246-811 area (E) Cultural diversity including people with disabilities and its implication for addiction treatment. Prerequisite: Instructor permission and 2.0 or better in each AS course. (SFCC)

AEROSPACE APPRENTICESHIP

APM 101 - Precision Machining I (5 cr)
Fundamental manual machining skills and knowledge required for machining and advanced manufacturing success. Includes advanced manufacturing, standardized manufacturing in aerospace, job plans and drawings, precision tolerances, application and use of manual tools including saws, drills, lathes, mills, and grinders. Covers basic materials identification, offload and secondary bench operations, sawing material with excess, part finishing utilizing filing, deburr and rotary tools, part marking (steel stamping), threading by hand and hole finishing. (SCC)

APM 102 - Precision Machining II (5 cr)
Introduction to precision machining in the shop environment with a focus on basic manual machining techniques, including speeds and feeds, on a milling machine, drill press and lathe. Identification and use of cutting tools, radius gauges and precision measuring tools. Students will examine tooling theory and learn to select proper measuring tools, including tooling point fixtures and 3,2,1 tooling, tram milling machine head, dial in vise, dial in holes, dial in four jaw chuck and tail stock. Principles of climb and conventional milling and causes of chatter will be explored. Emphasis on shop safety, following a job plan, and using measurement tools and various cutters to produce machined metal parts. Use of personal protection equipment and practice in tool safety. (SCC)

APM 103 - Engineering Drawings (5 cr)
Interpretation and application of technical drawings, including drawing zones, the relationship of detail, standard, section and auxiliary views. Students will learn linear dimensioning, tolerancing, lines, symbols and 3rd angle projection. Students will delve into scales, datums and orthographic projection, as well as examine and understand parts lists and how to navigate and utilize process specifications. Instruction includes interpreting mechanical/manufacturing blueprints per American Society of Mechanical Engineers Y14 Standards (2009). Emphasis on practical applications of this standard as applied to reading and interpreting engineering production drawings and updates. (SCC)

APM 121 - Shop Algebra (5 cr)
This course covers the properties of real numbers, simplifying expressions and solving equations and proportions. It also covers the manipulation of algebraic formulas and their applications to shop problems such as calculation of cutting speed, rpm and cutting time. (SCC)

APM 122 - Applied Geometry and Trigonometry (5 cr)
Students will build on the knowledge of mathematics skills learned in applied shop algebra to develop a working knowledge of geometry and trigonometry as it relates to aerospace and advanced manufacturing. This course focuses on the fundamentals and applications of geometry and trigonometry. Topics include perimeters, area and volume, trigonometric ratios and function, and right angles and non-right angles. Students will learn relationships of lines, planes, angles, congruent and similar triangles, polygons and circles. Additional topics include special triangles and the Pythagorean Theorem. (SCC)

APM 123 - CNC Operation and Setup (5 cr)
This course introduces basic CNC machine setup processes used on the mill and the lathe. Topics covered will include reading basic G & M codes, calculating work offsets, building tools, and setting tool offsets. Special emphasis will be on machine awareness and crash prevention. (SCC)

APM 201 - GD&T (5 cr)
This course introduces apprentice machinists to principles of Geometric Dimensioning and Tolerancing (GD&T) governed by the ASME Y14.5 standard. Apprentices will learn to identify and interpret each of the GD&T controls for form, profile, orientation, location, and runout. Apprentices will learn to interpret symbols, datums, basic dimensions, material condition modifiers, and other GD&T concepts that are essential for the machinist. Hands-on activities will emphasize interpreting GD&T found on engineering drawings, as well as the setup, measuring, and inspection of a part or features with geometric tolerancing. (SCC)

APM 202 - CNC Programming Mill (5 cr)
Apprentices will process the theory behind programming for the CNC Mill. They will be able to write simple commands and basic programs for using G & M codes. They will learn to verify programs and identify various syntax and logical problems in programming codes. (SCC)

APM 203 - CNC Programming Lathe (5 cr)
Apprentices will process the theory behind programming for the lathe. They will be able to write simple commands and basic programs for using G & M codes. They will learn to verify programs and identify various syntax and logical problems in programming codes. (SCC)

APM 221 - Materials, Processes, and References (5 cr)
In this course, apprentices will explore metallurgy, material properties and characteristics, related standards, and processes commonly used to manipulate materials. Apprentices will begin by learning about material composition and characteristics of the five basic metals: steel, stainless steel, cast iron, aluminum, and brass (copper). This course will then explore manufacturing processes used to manipulate metals, such as machining, casting, and forging, as well as processes that change their chemical composition, including heat treatment. The apprentices will also learn about and practice inspection techniques such as hardness testing and non-destructive testing (NDT) techniques with modern equipment. Hands-on the project for this course include materials testing, heat treatment, case hardening, casting, and material sample identification projects. Throughout the course, apprentices will research materials and processes in a shop reference, Machinery's Handbook. (SCC)

APM 222 - Inspection (5 cr)
Delivering quality efficiently is the key to strong manufacturing. To be competitive, today's machinist must be able to effectively inspect parts in the shop with a variety of methods and instruments. This course focuses on the science and skill of measuring and inspection. They will learn to verify dimensions of size and position, surface finish, material hardness, threads, and other important elements. Apprentices will have hands-on practice using a variety of measuring instruments such as micrometers, calipers, precision gages and coordinate measuring machines (CMMs). Apprentices will also learn techniques for inspection planning, first article inspection, in process inspection, and statistical process control. Instructors will reinforce the theory and technique of accuracy, precision and repeatability to help students develop an uncompromising attitude towards good inspection technique. (SCC)

APM 223 - Advanced Machining Technology (5 cr)
Introduction to advanced machining technologies, including laser cutting, Electrical Discharge Machining (EDM), and water jet cutting. Identification of, and the characteristics of, parts manufactured by advanced machining technologies technologies. Reading and understanding advanced machining manuals. (SCC)

AGRICULTURE, GENERAL

AGGEN 151 - Shop Skills (4 cr)
This course offers practical knowledge in a wide range of basic mechanical skills found in various agricultural industries. Safe use of hand and power tools, carpentry and woodworking, plumbing, electricity, concrete and masonry, and basic metalworking are emphasized. (SCC)

AGGEN 152 - Arc Welding (4 cr)
This course offers theory and practical applications using arc welding equipment to perform common maintenance and repairs that are encountered in agricultural occupations. Welding mild steel in flat, horizontal, vertical and overhead positions is emphasized. Students learn to select proper tools and equipment. Correct safety practices are stressed. (SCC)

AGGEN 153 - Oxy-acetylene Welding (4 cr)
This course offers theory and practical applications using oxy-acetylene welding equipment to perform common maintenance and repairs that are encountered in agricultural occupations. Students learn to select and use oxy-acetylene welding and cutting equipment. (SCC)

AGGEN 154 - Small Engine Operation and Maintenance (4 cr)
This course offers theory and practical applications of two- and four-cycle one-cylinder gas engines. The operation, care, maintenance and adjustment of engines common to agricultural applications are emphasized. (SCC)

AGGEN 156 - Equipment Operation and Maintenance (2-5 cr)
Safety, operation and preventive maintenance of engines and equipment used in Environmental Science occupations are emphasized. Use of two-and four-cycle small engines is included. Students learn to operate a variety of small tractors and landscape equipment. Students learn safe truck and trailer operation, backing, and maneuvering through obstacles. Students are required to hold a valid driver's license in order to enroll in the course. (SCC)

AGGEN 157 - Arc Welding (1 cr)
Theory and practical applications in the selection and use of arc welding equipment are offered in the course. Performing basic maintenance, repair and construction in various mechanical fields are emphasized. (SCC)

AGGEN 158 - Oxy-acetylene Welding (1 cr)
Theory and practical applications using oxy-acetylene welding and cutting equipment to perform common maintenance, repair and construction jobs that are encountered in a variety of mechanical fields are introduced. (SCC)

AGGEN 161 - Advanced Maintenance Welding (1-4 cr)
This course introduces students to specific welding-related construction and repair jobs that are encountered in the industry. A menu concept is provided for individual programs to select the competencies required for their individual needs. The following competencies listed may include, but are not limited to, metal identification, specialized oxy-acetylene cutting, hard-facing, soldering and repairing metal parts utilizing a variety of welding processes. Prerequisite: AGGEN 152, 153 or permission of instructor. (SCC)

AGGEN 162 - Metal Art (1 cr)
This course introduces the student to different forms of cutting and welding that can be used to create artistic forms. Students use new and discarded materials and cutting and welding forms which include, but are not limited to oxy/acetylene welding and cutting, MIG welding, brazing, soldering, and plasma cutting. (SCC)

AGRICULTURE/HORTICULTURE

AGHRT 101 - Basic Crop Science (5 cr)
This course introduces students to the basic principles of agronomy and the science which underlies those principles. Emphasis is placed on crop management practices such as tillage methods, variety selection, and monitoring of crop growth and development. Course objectives are based on the requirements of Certified Crop Advisor exam. (SCC)

AGHRT 102 - Pesticides and Fertilizer Application Equipment (2-4 cr)
This course emphasizes the practical application of pesticides and includes discussion and use sprayers and spreaders. Sprayer calibration is taught. Pesticide chemistry, selectivity and mode of action are introduced. Students prepare for the pesticide application exam. (SCC)

AGHRT 103 - Introduction to Greenhouse and Nursery Production (3 cr)
Students are introduced to greenhouse management and production. Variable physical conditions found in greenhouse environments and how they relate to plant growth and development are emphasized. Principles of greenhouse construction and operation also are covered. (SCC)

AGHRT 104 - Principles of Pest Management (5 cr)
Students are introduced to diseases, insects and weeds that pose problems to agricultural products in both the growth and storage stage. Options available to reduce or eliminate these problems for specific pest groups are discussed. Management, cultural practices, biological and natural controls, barriers, legislative controls and principles of chemical control are emphasized. (SCC)

AGHRT 105 - Horticultural Retail Sales (3 cr)
This course provides hands-on experience in the operation of the on-campus retail garden center, including operations, marketing and customer relations. (SCC)

AGHRT 106 - Greenhouse and Nursery Management I (5 cr)
This is the first in a series of three classes where students become engaged in the scheduling and production of flowering, tropical and bedding plants. Environmental factors affecting plant growth, manipulating the greenhouse environment, soil and water testing, fall propagation and nursery operations are emphasized. (SCC)

AGHRT 107 - Greenhouse and Nursery Management II (5 cr)
This class is the second in a series of three where students gain hands-on experience in scheduling and production of flowering, tropical and bedding plants. Greenhouse operations, site selection, greenhouse and nursery layout, heating and cooling, seed propagation, winter nursery operations, and bedding plant seed scheduling are emphasized. Prerequisite: AGHRT 106 or permission of instructor. (SCC)

AGHRT 108 - Greenhouse and Nursery Management III (4 cr)
This class is the third in a series of three where students become engaged in the scheduling and production of flowering, tropical and bedding plants. Plug production, production planning, determining cost and profit, pest and disease management, and spring nursery layout and operations are emphasized. Prerequisite: AGHRT 107 or permission of instructor. (SCC)

AGHRT 109 - Introduction to Vegetable Gardening (1-3 cr)
Students are introduced to vegetable gardening practices as they relate to our climate. Topics covered include season extenders, planning, soil preparation, planting time, acclimation, and sustainable gardening practices. (SCC)

AGHRT 110 - Fall Landscape Plant Materials (5 cr)
Students learn to identify fall landscape plants and their use in the Inland Northwest. Terminology of woody plant parts and plant nomenclature is emphasized. (SCC)

AGHRT 111 - House Plants (5 cr)
This course introduces students to plant material, cultural requirements and how to properly select plants found in floral shops, mass market outlets and interior plantscapes. Indoor environment also is studied. (SCC)

AGHRT 112 - Spring Landscape Plant Materials (5 cr)
Students learn to identify spring landscape plants and their use in the Inland Northwest. Conifers, broadleaf evergreens, and spring blooming trees and shrubs are emphasized. (SCC)

AGHRT 115 - Pruning (2-3 cr)
This course introduces students to the art and science of pruning ornamental trees and shrubs using a combination of lectures and hands-on field experience. (SCC)

AGHRT 116 - Green Industry Business Management (5 cr)
This practical course introduces basic principles of management found in the agriculture/horticulture industry. Analyzing situations and establishing appropriate procedures are emphasized. Topics presented include types of ownership, basic financial management, personnel management and government agency functions. (SCC)

AGHRT 126 - Computer Essentials for Environmental Sciences (2-5 cr)
This nonprogramming course introduces students to the use of computers as a tool for evaluating programs in agriculture, horticulture and related fields. Students are familiarized with key software through actual applications to problems in their chosen field of study. Windows, word processing, spreadsheets, databases, graphics and telecommunications are emphasized. (SCC)

AGHRT 171 - Agricultural Leadership Training (1 cr)
This course orients students with the agricultural program, the campus and community. Study skills are presented on topics such as study techniques, time management, communication and leadership styles. Leadership skills are encouraged through participation in a variety of department, club and civic activities. (SCC)

AGHRT 172 - Agricultural Leadership Training (1 cr)
This course orients students with the agricultural program, the campus and community. Study skills are presented on topics such as study techniques, time management, communication and leadership styles. Leadership skills are encouraged through participation in a variety of department, club and civic activities. (SCC)

AGHRT 173 - Agricultural Leadership Training (1 cr)
This course orients students with the agricultural program, the campus and community. Study skills are presented on topics such as study techniques, time management, communication and leadership styles. Leadership skills are encouraged through participation in a variety of department, club and civic activities. (SCC)

AGHRT 181 - Agricultural Leadership Training (1 cr)
This course orients students with the agricultural program, the campus and community. Study skills are presented on topics such as study techniques, time management, communication and leadership styles. Leadership skills are encouraged through participation in a variety of department, club and civic activities. (SCC)

AGHRT 184 - AgHort Occupational Preparation (1-3 cr)
Students learn about career opportunities in the fields of Agriculture and Horticulture. They will attend and participate in conferences and workshops associated with their chosen career field as available. They will continue to lean and practice leadership skills through service learning and other community service activities. (SCC)

AGHRT 185 - AgHort Occupational Preparation (1-3 cr)
Students learn about career opportunities in the fields of Agriculture and Horticulture. They will also find out their learning style and learn about scholarships and campus resources to help them succeed in school. They will learn and practice leadership skills through service learning and other community service activities. (SCC)

AGHRT 186 - AgHort Occupational Preparation (1-3 cr)
Students learn about career opportunities in the field of Landscaping: salaries, job duties, employing agencies in the public and private sectors and complete specific employment applications, resumes and letters of inquiry, and employment portfolios. Students are required to evaluate their work experience and submit comprehensive written and oral reports. Prerequisite: Permission of instructor. (SCC)

AGHRT 187 - AgHort Occupational Preparation (1-3 cr)
Students learn about career opportunities in the field of Landscaping: salaries, job duties, employing agencies in the public and private sectors and complete specific employment applications, resumes and letters of inquiry. They contact employers for interviews and follow-up. Prerequisite: Permission of instructor. (SCC)

AGHRT 195 - Practicum (2-3 cr)
This course offers practical lab experience involving typical problems that arise in the various agricultural/horticultural fields such as florist, greenhouse/nursery and landscape/turf. The areas of emphasis vary depending on the students' chosen program of study. (SCC)

AGHRT 201 - Landscape Installation (4-5 cr)
This course offers hands-on experience in installing landscapes using live projects on and off campus. Students develop competencies to become certified landscape technicians. Prerequisite: Concurrent enrollment in AGHRT 206. (SCC)

AGHRT 202 - Principles of Irrigation (4-5 cr)
This course introduces residential, commercial and agricultural irrigation principles. Sprinkler irrigation methods and designs, and performance characteristics of sprinkler irrigation equipment are emphasized. Prerequisite: Permission of instructor. (SCC)

AGHRT 204 - Landscape Design 1 (4 cr)
This course introduces landscape design and graphical techniques used in the landscape design profession. Students use processes and principles to design landscapes. A history of landscape design and how it has influenced the styles of today is presented. Students learn to draw landscape components and complete landscape designs by hand. (SCC)

AGHRT 205 - Landscape Design 2 (4 cr)
This course introduces advanced landscape design principles. Students use processes and principles to design several partial and whole landscapes using hand-drawn designs as well as computer aided drafting (CAD software). Prerequisite: AGHRT 204. (SCC)

AGHRT 206 - Landscape Construction (4-5 cr)
Students are introduced to the principles and procedures of landscape construction. Estimation, bidding and site preparation, as well as the removal and installation of landscape features such as plant materials, irrigation systems and a variety of hard features. Prerequisite: AGGEN 151 or permission of instructor. (SCC)

AGHRT 211 - Floral Design Techniques (5 cr)
This course introduces students to basic methods and principles of floral design with emphasis on the care and handling of flowers and plants, the use of color in floral arrangements, and the creation of a variety of floral arrangements. (SCC)

AGHRT 212 - Floral Design Applications (5 cr)
This course continues with the concepts introduced in AGHRT 211 emphasizing advanced floral arrangement methods. The study of historical periods of design and their application to contemporary floral design methods is presented. Prerequisite: AGHRT 211 or permission of instructor. (SCC)

AGHRT 213 - Retail Floristry (5 cr)
Students are introduced to the principles of successful florist management. Effective merchandising techniques and the creation of advanced floral arrangements are emphasized. Prerequisite: AGHRT 212 or permission of instructor. (SCC)

AGHRT 219 - Soil Management and Fertility (5 cr)
This course gives students a working knowledge of soil management. Students learn the role of each of the essential elements in plant growth and the deficiency symptoms of each. They also learn how the nutrients are stored in the soil and how they become available to plants. Numerous types of fertilizers and how each is used by plants are introduced. Various agricultural and horticultural soil management practices are discussed as well as how each affects the condition of the soil. (SCC)

AGHRT 225 - Weed Biology and Control (5 cr)
This course introduces students to the basic principles and economic significance of weed biology, identification and control. Students learn to identify weeds in all stages of growth and the common characteristics of each of the weed families. The principles of weed control using herbicides are emphasized. A weed collection is required. Prerequisite: AGHRT 104 is recommended. (SCC)

AGHRT 226 - Turfgrass Management (5 cr)
This course introduces theory and practical application in landscape management techniques. Grass selection and establishment, soil management, fertilization, irrigation, mowing, pest management and other cultural practices required in the care of home lawns, parks and golf courses are emphasized. Prerequisite: AGHRT 104 or permission of instructor. (SCC)

AGHRT 228 - Arboriculture (5 cr)
This course has been designed to teach students the concepts and terminology related to woody plant structure and form, and how plants interact with the urban environment. Students will learn how to select plant materials, how to properly plant and maintain them. Students will learn how to diagnose tree pests and other problems and procedures to mitigate or remedy these problems. The course is intended to provide training to help students prepare for the International Society of Arboriculture Certified Arborist Exam. (SCC)

AGHRT 230 - Plant Problem Diagnosis (5 cr)
Students study insects, diseases and environmental factors that adversely affect the health of agricultural and greenhouse crops and landscape plants. Problem diagnosis, identification of causal agent(s), and preparing recommendations for both chemical and cultural controls are emphasized. Prerequisite: AGHRT 104 or permission of instructor. (SCC)

AGHRT 232 - Pest Management Project (2 cr)
This is the capstone of the pest management series of courses. Students create a pest management plan for a crop or landscape including a variety of control measures for key pests. Students learn to select control measures based on a number of criteria. Prerequisite: AGHRT 104 is recommended and concurrent enrollment in AGHRT 230. (SCC)

AGHRT 234 - Bidding and Estimating (2-3 cr)
This course introduces the student to bidding and estimating practices for landscape design, construction, installation, and maintenance. Students learn to account for the numerous factors affecting the cost of these landscape practices. Contracts and risk management are also taught. (SCC)

AGHRT 235 - Advanced Arboriculture (5 cr)
Students gain an understanding of the advanced theory and practical application of tree and shrub care. Course emphasis is on understanding the why, how to, and the resulting effects of various tree care and removal practices. Students will also learn how to assess plant damage, and how to care for damaged plants. Students will be exposed to and should acquire a basic understanding of industry practices common to Arborists and Urban Foresters. The course is intended to provide training to help students prepare for the International Society of Arboriculture Certified Arborist Exam. (SCC)

AGHRT 236 - Arboriculture Tools and Equipment (2 cr)
Students gain and understanding of the tools and equipment commonly used in the tree care industry. Course emphasis is on building familiarity with a variety of tools and equipment that Arborists use. Safe equipment setup and use will be emphasized. (SCC)

AGHRT 237 - Small Farm Production (5 cr)
Students gain an understanding of the advanced theory and practical application of small farm practices. Course emphasis is on understanding the why, how-to, and the resulting effects of various farming techniques, as well as small farm diversity and profitability. Students will learn the different methods of production through lecture and laboratory. (SCC)

AGHRT 238 - Small Farm Marketing (3 cr)
This course is designed to teach students the concepts and terminology related to marketing for small farms. Students will learn how to determine market potential, price farm products, and sell food products through various marketing channels. Furthermore, students will understand the benefits of values-based food systems, and learn the regulations associated with selling common farm products here in Washington State. (SCC)

AGHRT 240 - Practicum - Floral Design Projects 1 (3 cr)
This course provides practical lab experience involving advanced floral design techniques and floral shop management. Prerequisite: AGHRT 213. (SCC)

AGHRT 241 - Practicum - Floral Design Projects 2 (3 cr)
This course provides practical lab experience involving advanced floral design techniques and floral shop management. Prerequisite: AGHRT 213. (SCC)

AGHRT 266 - Cooperative Education Seminar (1-2 cr)
For course description, see Cooperative Education. (SCC)

AGHRT 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SCC)

AGHRT 296 - Special Problems (1-3 cr)
This course is designed to meet specific skill levels for individual students. Course content varies depending on areas of special interest and the number of credits chosen. Established guidelines allow students to research special areas of interest. Prerequisite: Permission of instructor. (SCC)

AGHRT 297 - Special Problems (1-3 cr)
This course is designed to meet specific skill levels for individual students. Course content varies depending on areas of special interest and the number of credits chosen. Established guidelines allow students to research special areas of interest. Prerequisite: Permission of instructor. (SCC)

AMERICAN SIGN LANGUAGE

ASL& 121 - Am Sign Language I (5 cr)
First course in a series of three American Sign Language (ASL) courses that are prerequisites for the interpreter training program or can be taken for modern language credit. ASL I introduces at least 360 vocabulary words, receptive and expressive skills, deaf culture, and grammatical structure of ASL. (SCC, SFCC)

ASL& 122 - Am Sign Language II (5 cr)
Second course in a three-course series of American Sign Language (ASL). All are prerequisites to enter the interpreter training program or can be taken for modern language credit. This course I adds vocabulary development of at least 450 signs and their respective glosses, receptive and expressive skills, and enhance use and understanding of grammatical structure of ASL. Various aspects of deaf culture is discussed. Prerequisite: ASL& 121. (SCC, SFCC)

ASL& 123 - Am Sign Language III (5 cr)
This is the third course in a three- course series of American Sign Language (ASL). All are prerequisites to enter the interpreter training program or can be taken for modern language credit. This course increases vocabulary by introducing at least 350 new vocabulary words, advances receptive and expressive skills, enhances use of appropriate grammatical features of ASL and relate cultural aspects of the deaf community. Prerequisite: ASL& 121, 122. (SCC, SFCC)

ASL& 221 - American Sign Language IV (5 cr)
This is the fourth course in a series of 6 American Sign Language courses. This course emphasizes expressive and receptive communication skills involving elementary school coursework and accompanying vocabulary of at least 350 words; demand-control schema and aspects of ASL grammatical features. Information about Roles and Responsibilities of educational interpreters will be incorporated into each task. Prerequisite: ASL& 123 (SFCC)

ASL& 222 - American Sign Language V (5 cr)
This is the fifth course in a series of 6 American Sign Language courses. This course incorporates expressive and receptive communication skills involving middle school subject matter and accompanying vocabulary of at least 400 words; additional information about demand-control schema and aspects of ASL grammatical features. Information about Deaf Culture will be compared to that of the majority hearing culture. Prerequisite: ASL& 221 (SFCC)

ASL& 223 - American Sign Language VI (5 cr)
This is the sixth course in a series of 6 American Sign Language courses. This course incorporates expressive and receptive communication skills involving high school subject matter and accompanying vocabulary of at least 350 words; comparative information about demand-control schema and aspects of ASL grammatical features. Information about Deaf Culture will be compared to that of the majority hearing culture. Prerequisite: ASL& 222 (SFCC)

ANTHROPOLOGY

ANTH& 100 - Survey of Anthropology (5 cr)
An introductory survey course of anthropology that examines the biology and cultures of humans through scientific and humanistic perspectives. This course explores anthropology as a four-field discipline, encompassing biological anthropology (primates, human biological diversity, paleoanthropology), archaeology (ancient cultures), cultural anthropology (contemporary cultures and cultural diversity), and linguistic anthropology (language and communication). (SCC, SFCC)

ANTH& 206 - Cultural Anthropology (5 cr)
This course explores the concept of culture through a comparative study of both traditional and contemporary peoples across the globe. Topics such as social organization, power and politics, technology, economics, religion and ritual, expressive culture, ethnicity, and sex and gender are examined through the combination of the holistic perspective and cultural theory. (SCC, SFCC)

ANTH& 210 - Indians of North America (5 cr)
This course is an introduction to the diverse American Indian cultures of North America north of Mexico from pre-European contact to the present. Emphasizing a four-field anthropological framework, this course examines aspects of American Indian culture such as environmental adaptations, religious-ideological systems, kinship systems, and social identity. (SFCC, SCC)

ANTH 221 - Stone Age Survival (5 cr)
Introduction to experimental archaeology through the exploration of different forms of technology used throughout prehistory. The opportunnity to practice making and using primitive tools is an integral part of this course. (SFCC)

APPLIED EDUCATION

APLED 110 - Applied Comprehensive Communication (5 cr)
This course is an introduction to comprehensive communication skills and their application to vocational and academic studies. (SCC)

APLED 112 - Applied Mathematics (2-5 cr)
This course is an introduction to mathematical theory and its application to the professional/technical fields. Topics include an overview of general mathematical concepts, geometry, trigonometry and algebra, and how they are successfully utilized in practical situations. (SCC)

APLED 113 - Introduction to Computers for Technology (2-5 cr)
Students will learn industry specific micro computer concepts and applications for their unique program of study. This course of study will include general technology as well however the majority of the course is focused on the actual industry typical use and need. (SCC)

APLED 121 - Applied Written Communication (4 cr)
This course is an introduction to written communication skills and their application to vocational and academic studies. Development of writing skills necessary to plan and write technically formatted documents is emphasized. Prerequisite: Guided Self-Placement (SCC)

APLED 123 - Leadership Skills for Business and Industry (3-4 cr)
This course is an introduction to verbal communication and team-building skills necessary for success in business and industry. Methods of improving communication including nonverbal communication and conflict management are emphasized. Verbal presentation strategies are presented. Prerequisite:This course is an introduction to written communication skills and their application to vocational and academic studies. Development of writing skills necessary to plan and write technically formatted documents is emphasized. Prerequisite: Guided Self-Placement. (SCC)

APLED 125 - Employment Preparation (3 cr)
This course provides advanced communication concepts that focus on resume writing, job interviewing, team building, problem solving and presentational skills. Course content varies depending upon the needs of individual departments. Prerequisite: APLED 121 or ENGL& 101 and fifth or sixth quarter standing. Appropriate placement scores or permission of instructor. (SCC)

AQUATICS

AQUAT 101 - Beginning Swimming (1 cr)
This course introduces water safety techniques, development of confidence, floating and elementary strokes with special attention to form. Upon passage of skill levels, students are issued the appropriate Red Cross cards. (SCC)

AQUAT 110 - Intermediate Swimming (1 cr)
Students learn and perfect five basic strokes. Five advanced strokes are introduced, and basic rescue and water safety are emphasized. American Red Cross cards are awarded to those who successfully complete the course. Prerequisite: American Red Cross beginner's skills or permission of instructor. (SCC)

AQUAT 115 - Swimming (1 cr)
Students learn to improve skills at their own rate. Muscular and cardiorespiratory function through stroke development and general swimming activity are emphasized. (SCC)

AQUAT 132 - Springboard Diving - Beginning (1 cr)
This course introduces the skills and techniques of springboard diving. Approaches, take offs and entries for five basic dives are emphasized. (SCC)

AQUAT 136 - Aquatic Fitness (1 cr)
This progressive program of simple exercises in and out of the water develops general body conditioning and improves efficiency of the heart, lungs and circulation. Nonswimmers, as well as swimmers, benefit from this course. (SCC)

AQUAT 224 - Water Safety Instructor (2 cr)
This course covers swimming, life-saving skills and fundamentals necessary to achieve W.S.I. certification. Students prepare for employment as teachers or administrators of aquatic programs. Prerequisite: Current lifeguard training certification; 17 years of age. (SCC)

AQUAT 230 - Lifeguard Training (2 cr)
Proper guidelines for lifeguarding in pools are covered in this course. Standard first aid and CPR for the professional rescuer are included, as is American Red Cross certification. Prerequisite: Intermediate swimming level; 15 years of age. (SCC)

AQUAT 232 - Springboard Diving - Advanced (1 cr)
This course introduces the skills and techniques of springboard diving. Approaches, take offs and entries for five basic dives are emphasized. (SCC)

ARCHITECTURAL TECHNOLOGY

ARCHT 112 - Introduction to Architectural Drafting (5 cr)
Two-and three-dimensional design and spatial studies; abstract studies in form, color and texture; introduction to architectural design processes; isometric and orthographic drawing; perspective, shade and shadow, lettering, and drafting techniques. (SCC)

ARCHT 114 - Architectural Math (3 cr)
This course offers a review of basic math related to architectural drafting and math skills required for the construction industry. (SCC)

ARCHT 120 - Residential Architecture Theory (5 cr)
Exploration of architecture, interior design, landscape architecture, engineering consulting and construction management through equity, environment, and economy; careers in the building design industry are considered. This course includes research methods, an overview of architectural history, and the development of written communication skills necessary in the professional office environment and academic arena. (SCC)

ARCHT 122 - Architectural Design 1 (5-7 cr)
Introduction to architectural design focusing on composition, conceptual design and principles of organization, scale, proportion, rhythm and 3-D development. Students develop the team-building skills as well as the graphic and verbal communication abilities necessary for success in the building design industry. Prerequisite: ARCHT 112 or permission of instructor. (SCC)

ARCHT 124 - Advanced Architectural Math (1-2 cr)
This course applies the mathematical concepts and principles introduced in ARCHT 114. The use of computers in numerical computation is emphasized. Construction cost estimating methods are examined. Prerequisite: ARCHT 114 or permission of instructor. (SCC)

ARCHT 125 - Residential Building Codes (2 cr)
Emphasis on basic graphic skills, design principles and design concepts for built environment design. Advanced exploration and communication of theories and concepts related to basic 2-dimensional and 3-dimensional principles of built space. (SCC)

ARCHT 126 - Introduction to Computer Aided Drafting (3-5 cr)
Students are introduced to the basic principles of CAD commands. Practical applications of a drawing software package and the creation of basic working drawings are emphasized. (SCC)

ARCHT 130 - Residential Building Materials (4 cr)
This is an introductory course to the materials commonly used in residential construction. A variety of building components, their applications and limitations, and basic construction methods will be emphasized. (SCC)

ARCHT 132 - Introduction to Construction Documents/CAD (8 cr)
Introduction to construction documents using CAD. Students will develop working drawings common in a set of residential construction documents. Students will learn common practices for CAD usage within a professional building design office to equip them for effective collaborative work. Prerequisite: ARCHT 122 or permission of instructor. (SCC)

ARCHT 134 - Electrical and Mechanical Systems (4 cr)
Introduction to Electrical and Mechanical Systems for Buildings: building heating, ventilating, and air conditioning systems, heat transfer concepts, water supply, drainage, electrical and lighting systems for buildings. Prerequisite: ARCHT 120 or permission of instructor. (SCC)

ARCHT 139 - Delineation (5 cr)
Development of skills relating to drawing 2D and 3D objects, one and two point perspective as well as orthographic projection. Exploration of manual sketching techniques in combination with digital presentation methods. (SCC)

ARCHT 215 - Issues in Sustainable Architecture (5 cr)
The course will introduce students to the challenges of sustainable design and will focus on solutions. Students will utilize digital tools and technology with select design projects which will become the vehicle to analyze, evaluate and articulate new ideas for a more sustainable architectural design. (SCC)

ARCHT 225 - Portfolio (1 cr)
The course will guide students in a reflection and compilation of the cumulative documentation developed during the current and previous four quarters of the CAD/Building Design AAS and Architecture AAS-T degree programs. (SCC)

ARCHT 238 - Introduction to Commercial Drafting/Design (6 cr)
Students are introduced to commercial architectural drafting and design implemented as a programmatic, sequential process. Concepts of commercial design are integrated with the development of basic commercial drafting concepts and procedures. Prerequisite: ARCHT 132 or permission of instructor. (SCC)

ARCHT 240 - Commercial Building Codes (3 cr)
This course introduces code analysis and code conformance for nonresidential projects. Prerequisite: ARCHT 125 or permission of instructor. (SCC)

ARCHT 242 - Commercial Construction Documents/CAD (4-8 cr)
Students receive practical lab experience in the development of architectural working drawings from a preliminary commercial building design. Structural framing systems are emphasized. Construction documents will be produced using Autodesk CAD/BIM software. Prerequisite: ARCHT 238 or permission of instructor. (SCC)

ARCHT 246 - Commercial Architecture Theory (3-5 cr)
Students are introduced to the commercial architectural drafting profession, including the processes and materials used in the construction of commercial building systems. Commercial design decisions will be defined by relating building technologies, procedures, related industries and jurisdictional constraints. (SCC)

ARCHT 250 - Introduction to Commercial Building Materials (4 cr)
Students are introduced to the materials commonly used in commercial construction. A variety of building components, their applications and limitations, and basic construction methods are emphasized. Wood, masonry, steel and concrete systems are discussed in depth. (SCC)

ARCHT 251 - Advanced Commercial Building Codes (3 cr)
This course continues the concepts presented in ARCHT 240. Advanced code analysis and code conformance on commercial projects are emphasized. Prerequisite: ARCHT 240. (SCC)

ARCHT 252 - Advanced Commercial Construction Documents/CAD (8 cr)
Practical lab experience is offered in the development of commercial designs utilizing Building Information Modeling (BIM) and related technologies. Emphasis on visualization and analysis of BIM developed projects will be addressed. Prerequisite: ARCHT 242 or permission of instructor. (SCC)

ARCHT 262 - Electrical Mechanical Systems Application/CAD (6-10 cr)
Practical lab experience is utilized in the development of commercial construction documents/designs integrating mechanical, electrical, lighting and plumbing systems for buildings. Hands-on application will be via continued development of Building Information Modeling (BIM). Prerequisite: ARCHT 252 or permission of instructor. (SCC)

ARCHT 263 - Advanced Commercial Building Materials (4 cr)
The course continues the concepts presented in ARCHT 250. A variety of building components, their applications and limitations, and basic construction methods are emphasized. Wood, masonry, steel and concrete systems as well as building envelope materials are discussed in depth. Prerequisite: ARCHT 250. (SCC)

ARCHT 266 - Cooperative Education Seminar (1-2 cr)
For course description, see Cooperative Education. (SCC)

ARCHT 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SCC)

ARCHT 288 - Cooperative Education Work Experience (No Seminar) (1-18 cr)
For course description, see Cooperative Education. (SCC)

ART

ART& 100 - Art Appreciation (5 cr)
A course to develop an appreciation and awareness of art, and to make art effective in daily living. (SCC, SFCC)

ART 101 - Fundamentals of Drawing (4 cr)
Freehand drawing from observation is taught. Studies of form, texture, line, mass, shape and perspective applied to expressive drawing for the beginning student. (SFCC)

ART 102 - Drawing Composition (4 cr)
Includes studies of form, texture, line, mass and shape applied to expressive drawing with emphasis on good composition. (SFCC)

ART 103 - Drawing Techniques (4 cr)
Studies of form, texture, line, mass and shape are applied to expressive drawing with emphasis on a variety of drawing techniques. (SFCC)

ART 105 - Color and Design (5 cr)
A first-quarter studio class introducing the elements and principles of two-dimensional design. This course emphasizes the structures and theories of color as it is perceived via pigment and light. Through individual projects, exercises and discussion, the student learns basic art vocabulary, compositional structure, analytical skills and professional craftsmanship. (SFCC)

ART 106 - 3-D Design (4 cr)
A second-quarter design class continuing the development and exploration of the elements and principles of design with the emphasis on form and space. A variety of processes including modeling, carving, casting and fabrication are introduced through a series of exercises. Materials may include paper, wood, found objects, metals, clay, plaster and latex. Students learn safety procedures and the proper use of hand and power tools. Prerequisite: ART 105 or permission of instructor. (SFCC)

ART 108 - Ancient/Medieval Art (5 cr)
History of the development of major and minor arts from prehistoric times through the Middle Ages. The civilizations of the Near East, Egypt and the classical world are introduced through illustrated lecture and individual research. The developing art of Western Europe during the Middle Ages is seen in the context of its political, social, economic and religious environment. (SCC, SFCC)

ART 109 - Renaissance/Baroque Art (5 cr)
History of the development of major and minor arts from the Early Renaissance through the 18th century. Through illustrated lectures and individual research, the student will explore the work of individual artists, observe the changing role of the artist in his/her society, note the support systems of art patronage, and attempt to assess the aesthetics of the given period or style. (SCC, SFCC)

ART 110 - Modern Art (5 cr)
History of the development of modern art beginning with the 19th century and concluding with an emphasis on contemporary art and architecture. The course attempts to critically assess the aesthetics of art styles and ideologies. Through illustrated lectures and individual research the students are exposed to a variety of contemporary approaches and media in the visual arts. (SCC, SFCC)

ART 112 - Non-Western Art (5 cr)
This course is designed to explore the art from cultures outside the European tradition such as Asian, African, Meso American and groups from the North American continent. In addition to the basic slide/lecture format, there are guest speakers, films and videos, and one or two short art experiences. (SCC, SFCC)

ART 122 - Health and Safety in Art (1 cr)
Designed to develop awareness of health, safety and toxicology concerns as they pertain to processes and materials used in the visual arts. Information on hazards and the necessary precautions for individual media, ventilation, substitutes for hazardous materials and safety in the studio is included. A recommended course for all art students. (SFCC)

ART 127 - Visual Arts Special Workshops (1-15 cr)
This course provides intensive studio experiences in specialized areas of visual arts including techniques or concepts not already covered by existing classes. May be repeated for a maximum of 15 credits. (SFCC)

ART 130 - Sculpture (4 cr)
Studio investigation of various sculptural concepts, materials and processes. Students work with equipment and tools and are given specific problems dealing with a variety of materials. Advanced students work closely and contractually with the instructor. Independent research and exploration is encouraged at beginning and advanced levels. May be repeated for a total of 16 credits. Prerequisite: ART 106 or 205 or an academic art course or permission of instructor. (SFCC)

ART 147 - Advanced Design (3 cr)
Advanced problems in aesthetic and symbolic considerations of 2-D and 3-D design. May be repeated for a total of 6 credits. Prerequisite: ART 105. (SFCC)

ART 160 - Matting and Framing (1 cr)
This one credit course is taught concurrently with Art 161 Portfolio Review and is intended for both AFA and CFA fine art students after their first two quarters in the program. Matting and Framing is intended to teach fine art students enrolled in Portfolio Review basic matting and framing skills in order to prepare their portfolio artwork for presentation to the art faculty during the program's formal Portfolio Review at the end of the quarter. All fine art students enrolled in Art 160 must be concurrently enrolled in Art 161. (SFCC)

ART 161 - Portfolio I (1 cr)
A studio seminar to be taken at the end of the first year. An introduction to professional practices including preparation of a portfolio of original work, documentation of work using a copy stand and camera, and writing an artist's statement. Independent research, seminar discussions, guest artists, and viewing exhibitions and performances. Required for C.F.A. and A.F.A. candidates. To be taken spring quarter in the first year. Prerequisite: ART 106, 110 and 202, plus 10 additional Art credits at SFCC or permission of instructor. The above can be taken concurrently with ART 161. (SFCC)

ART 180 - Watercolor (4 cr)
Transparent and opaque watercolor, as well as other water mediums. Students learn to stretch paper and to handle the traditional tools and papers of this medium. Individual projects designed to encourage exploration and personal expression. May be repeated for a total of 16 credits. (SFCC)

ART 186 - Oil Painting (4 cr)
Working with oil medium on canvas, board or paper. Practice in stretching canvas, preparing the ground and mixing paint. Course emphasizes the formal aspects of composition and the development of an expressive approach to subjects and themes. May be repeated for a total of 16 credits. (SFCC)

ART 188 - Acrylic Painting (4 cr)
Working with acrylic and other compatible mediums on surfaces such as canvas, board or paper. Practice in stretching canvas, preparing the ground and mixing paint. Course emphasizes the formal aspects of composition and the development of an expressive approach to subjects and themes. On occasion, this course may be offered specifically to teach mural painting. May be repeated for a total of 16 credits. (SFCC)

ART 189 - Printmaking (4 cr)
A survey of the various printing processes, and an exploration into these to encourage the student to experiment and make comparisons as to the various qualities of each medium. Instructor may select from metal, stone, wood and linoleum, incorporating monotype, stenciling and stamping approaches in order to help students develop the knowledge of tools, materials and techniques. May be repeated for a total of 16 credits. (SFCC)

ART 190 - Printmaking Relief (4 cr)
Using surfaces such as wood and linoleum, the student explores direct and indirect methods of image formation. Stamping, frottage, embossing and traditional relief methods will be explored, as well as use of color on single and multiple plates. May be repeated for a total of 12 credits. (SFCC)

ART 191 - Screen Printing (4 cr)
Individual exploration of screen printing may include the photo process, tusche and glue, and cut stencil. The instructor considers both technical and aesthetic concerns. May be repeated for a total of 12 credits. (SFCC)

ART 192 - Printmaking, Intaglio (4 cr)
Dry point, engraving, etching, embossing and callography will be explored on surfaces such as zinc, copper, masonite and cardboard. Students may apply techniques such as soft ground, sugar lift, aquatint and color printing in conjunction with design concepts. May be repeated for a total of 12 credits. (SFCC)

ART 194 - Jewelry (3 cr)
Design and construction of jewelry in various materials including contemporary materials with emphasis on design and craftsmanship. Course applies to the artist as a craftsperson in the professional field. May be repeated for a total of 9 credits. (SFCC)

ART 197 - Art Mediums and Techniques (3 cr)
Introduction to various craft techniques. May include papermaking, mixed media, simple book designing, weaving, ceramic arts, enameling and printing techniques. Application of the elements and principles of design. Good craftsmanship is stressed. May be repeated for a total of 9 credits. (SFCC)

ART 201 - Experimental Drawing (3 cr)
Studio and outside assignments are designed to expand the student's understanding of drawing concepts. Student is expected to participate in individual and group assignments that challenge the traditional definitions of drawing. Emphasis is on a creative approach to traditional and unconventional materials. Prerequisite: ART 101 or 102 or 103 or 202 or permission of instructor. (SFCC)

ART 202 - Figure Drawing (3 cr)
Working from a live model, the student explores a range of drawing approaches including gestural drawings, sustained renderings, structural drawings and expressive treatment of the figure. Exercises are performed which emphasize anatomical structure and focus on fragments, such as hand studies and portraiture. The development of a personal approach to drawing the figure and an examination of how the figure can be handled in art is explored through such means as critiques, slide presentations and demonstrations. May be repeated for a total of 18 credits. (SFCC)

ART 205 - Ceramics (4 cr)
Clay forming processes, hand-building, potter's wheel and principles of glazing and firing. May be repeated for a total of 12 credits. (SFCC)

ART 206 - Advanced Ceramics (4 cr)
This course involves advanced work in ceramics including specialized glaze and firing techniques, sculpture and functional form, student-based research project, and development of individual artistic concepts in clay. May be repeated for a total of 12 credits. Prerequisite: Three quarters of ART 205 or permission of instructor. (SFCC)

ART 260 - Gallery Procedures (1 cr)
This one credit course is taught concurrently with Art 261(Exhibit) and is intended for both AFA and CFA fine art students in their final spring quarter of the program. Gallery Procedures is designed to help students understand the process of installing all types of artwork in a variety of settings. All fine art students enrolled in Art 260 must be concurrently enrolled in Art 261. (SFCC)

ART 261 - Exhibit (1 cr)
Planning and installation of a culminating exhibition. Seminar dealing with professional practices: slide documentation, presentation and exhibitions, resumes and statements, and public relations. Critiques and articulation of personal work. Independent research, seminar discussions, gallery visits and guest artists. Required for all C.F.A. and A.F.A. candidates for graduation. To be taken spring quarter in the second year. Prerequisite: ART 161 plus 25 credits in art at SFCC or permission of instructor. (SFCC)

ASTRONOMY

ASTR& 100 - Survey of Astronomy (5 cr)
This course provides a survey of astronomy that includes its history as a science, the motions of celestial objects, the solar system, the life cycles of stars, the Milky Way and other galaxies, and cosmology. This is a non-lab physical science course, and credit will not be granted for both ASTR& 100 and ASTR& 101. (SCC, SFCC)

ASTR& 101 - Intro to Astronomy (5 cr)
This course provides an introduction to general astronomy topics such as patterns of motion in the sky, the physics of motion and light, the formation and characteristics of the solar system, stars and stellar evolution, galaxies, and cosmology. Weekly laboratory required. Credit will not be granted for both ASTR& 101 and ASTR& 100. (SCC, SFCC)

AUDIO ENGINEERING

AUDIO 113 - Live Sound and Location Recording I (3 cr)
This course instructs students in the design and use of live sound reinforcement systems and principles of live concert recording. Students receive hands-on training in cabling, acoustics, equalization, critical listening, and mixing, as well as techniques for successful location recording. Prerequisite: AUDIO 117, 155 and concurrent enrollment in AUDIO 120. (SFCC)

AUDIO 116 - Music Basics for Audio Professionals (5 cr)
Students learn basic music theory, vocabulary, instrumental concepts and communication skills needed to succeed in the professional recording industry. Basic keyboard skills are developed as preparation for MIDI sequencing. (SFCC)

AUDIO 117 - Introduction to Music Technology (4 cr)
Students learn a brief history of electronic music and the development of analog/digital synthesis and sampling technology. MIDI concepts and applications are covered. Students receive hands-on experience programming and editing sounds on virtual analog synthesizes. Basic MAC computer tutorial and music sequencing software are introduced. (SFCC)

AUDIO 120 - Digital Audio I (4 cr)
This course is an introduction to digital audio workstations, including: basic audio recording, editing and mixing functions, MIDI sequencing and arranging, digital audio theory, file management, and basic operating system skills. Prerequisite: AUDIO 117 and 155 and MUSC& 141 or AUDIO 116. (SFCC)

AUDIO 121 - Digital Audio II (4 cr)
This course is a continuation of Digital Audio I and provides intermediate level Digital Audio Workstation instruction. Students further explore the recording, editing, and mixing capabilities of DAW software. Prerequisite: AUDIO 120. (SFCC)

AUDIO 151 - Audio Project I (1 cr)
Students plan and implement complete recording studio projects including set up, recording, overdubbing, mixdown and mastering. Prerequisite: AUDIO 155 and concurrent enrollment in AUDIO 156. (SFCC)

AUDIO 155 - Introduction to Recording (5 cr)
This course is an introduction to techniques and equipment for audio recording. Students study acoustics, studio construction, microphones, signal flow, multitrack recording, signal processing and receive hands-on recording experience. Prerequisite: Concurrent enrollment in AUDIO 117. (SFCC)

AUDIO 156 - Audio Engineering I (4 cr)
Students study multitrack recording and mixdown techniques including signal flow, microphone techniques, reverb, delay, effects, signal processing and basic mastering. Critical listening and aural skills are developed and applied in mixdowns and Audio Project classes. Prerequisite: AUDIO 155. (SFCC)

AUDIO 159 - Business of Music (5 cr)
With emphasis on human relations and personal communication skills, students are guided through the maze of the music industry. Skills are developed for working with agents, managers, attorneys, recording company executives, ad agencies, promoters, club owners and musicians. Various music and studio career opportunities are explored along with the pros and cons of contracts, unions, guilds, copyright, publishing and performing rights organizations. (SFCC)

AUDIO 205 - MIDI Arranging (5 cr)
Students compose and arrange music for small groups of instruments as used in live performance, commercial radio and TV jingles. Using Finale notation software and MIDI production software for the Mac workstation, students study composition and style techniques. Prerequisite: AUDIO 218 and MUSC 214. (SFCC)

AUDIO 206 - Scoring for Film and Multi-Media (5 cr)
This advanced course provides students with a comprehensive foundation of music scoring and sound design structures for film and video. Students use Mac computer workstations and music production software. Open to full time students in the Audio Technology program. Prerequisite: AUDIO 205. (SFCC)

AUDIO 213 - Live Sound II (4 cr)
This course is a continuation of AUDIO 113 with emphasis on setup and operation of larger systems. Students study system design, signal processing, acoustics, troubleshooting, critical listening and effective communication. Students receive extensive hands-on experience running sound for a variety of music ensembles. Prerequisite: AUDIO 113, 156 and concurrent enrollment in AUDIO 217, 218, MUSC 214. (SFCC)

AUDIO 217 - System Setup and Maintenance (3 cr)
Students learn to set up and solve technical problems within a digital audio/MIDI workstation. Learn about MIDI/Audio interface connections and troubleshooting in both digital and combination digital /analog recording studio environments. Prerequisite: MUSC 167. (SFCC)

AUDIO 218 - Digital Audio III (5 cr)
This course provides intermediate level instruction on Pro Tools digital audio workstations with an emphasis on music editing and professional mixing techniques. Prerequisite: AUDIO 121, 156 and MUSC 167. (SFCC)

AUDIO 219 - Digital Audio IV (5 cr)
This course provides advanced level instruction on Pro Tools digital audio workstations with an emphasis on MIDI and music production. Prerequisite: AUDIO 213 and 218 or 255. (SFCC)

AUDIO 220 - Digital Audio V (5 cr)
This course will provide an overview of the sound for picture industry as well as in-depth instruction on sound effects creation/ editing, ADR, field recording, synch, and post-production utilizing Pro Tools digital audio workstations. Prerequisite: AUDIO 219 and 255. (SFCC)

AUDIO 251 - Audio Projects II (1 cr)
Students record, edit, and mix audio projects for their portfolios in this course. Students begin pre-production and then projects are assessed at several points during the recording process. Finished mixes are critiqued and then mastered. Prerequisite: AUDIO 151, 219, 255 and concurrent enrollment in AUDIO 260. (SFCC)

AUDIO 255 - Audio Engineering II (4 cr)
Students study more advanced audio recording and production techniques as they participate in live recording and mixdown sessions. This includes further study of analog and digital signal processing multitrack editing and CD production. Prerequisite: AUDIO 121, 151, 156 and concurrent enrollment in AUDIO 217, 218, MUSC 214. (SFCC)

AUDIO 260 - Audio Portfolio (1 cr)
In this course students assemble a professional audio portfolio for presentation to prospective employers. Students learn advanced signal processing techniques and develop refined critical listening skills. Prerequisite: AUDIO 151, 219, 255 and concurrent enrollment in AUDIO 206, 220, 251. (SFCC)

AUDIO 266 - Cooperative Education Seminar (1 cr)
For course description, see Cooperative Education. (SFCC)

AUDIO 267 - Cooperative Education Work Experience (1-3 cr)
For course description, see Cooperative Education. (SFCC)

AUTOMOTIVE COLLISION AND REFINISHING TECHNICIAN

ABF 111 - Shop Procedures Lab (3 cr)
Students are instructed and participate in safe operation of various collision shop equipment in a shop setting. (SCC)

ABF 112 - Introduction to Unibody Lab (5 cr)
Students are instructed in and perform measurement, structural damage, removal and replacement of welded, bonded, and bolted parts in a shop setting. (SCC)

ABF 113 - Introduction to Job Safety, Tools, and Equipment (4 cr)
Students are introduced to personal safety and health protection requirements found in typical body shops. General shop procedures and operations are emphasized. Prerequisite: Concurrent enrollment in ABF 114, 115, 116. (SCC)

ABF 114 - Introduction to Unibody and Frame Alignment and Repair (4 cr)
Applications of basic auto sheet metal work, body shop power tools and welding equipment are introduced. Safety procedures and minor auto body repairs are emphasized. Prerequisite: Concurrent enrollment in ABF 113, 115, 116. (SCC)

ABF 115 - Basic Metal Straightening and Panel Alignment Lab (3 cr)
Students are instructed in and perform metal and plastic damage diagnosis, repair, and body alignment in a shop setting. (SCC)

ABF 116 - Parts Identification Lab (2 cr)
Students are instructed in and perform parts identification, ordering, and interpreting repair orders in a shop setting. (SCC)

ABF 117 - Automotive Collision MIG Welding (3 cr)
This course introduces students to the basic MIG skills required for success in the automotive collision and refinishing field. A variety of basic welding skills are introduced with emphasis on welding safety. (SCC)

ABF 123 - Major Panel Replacement Lab (4 cr)
Students are instructed and participate in major panel replacement in metal panels and plastic panels. (SCC)

ABF 124 - Mechanical Components Lab (3 cr)
Students are instructed in the mechanical moving parts of the vehicle and the diagnosing of damaged parts. (SCC)

ABF 125 - Major Unibody and Frame Repair Lab (4 cr)
Students are instructed and participate in the use of frame machines and will participate in pulling the vehicle back to specification of the manufacturer. (SCC)

ABF 126 - Fundamentals of Shop Procedures (3 cr)
Students learn practical applications found in typical body shops. Hydraulic equipment, corrosion proofing, welding and cost estimating are emphasized. Prerequisite: Concurrent enrollment in ABF 123, 124, 125. (SCC)

ABF 127 - Major Panel Replacement (1 cr)
Students are introduced to frame machines and how they are used for replacement repair of inner and outer panels of the vehicle. (SCC)

ABF 133 - Introduction to Industrial Safety and Hygiene Lab (1 cr)
Students are instructed and participate in safety procedures. (SCC)

ABF 134 - Introduction to Interior and Exterior Surface Preparation Lab (2 cr)
Students are instructed and participate in surface preparation of interior and exterior of the vehicle. (SCC)

ABF 135 - Basic Polishing and Detailing (3 cr)
Students are introduced to polishing and detailing procedures. Washing, compounding and polishing, and interior and exterior detailing are emphasized. (SCC)

ABF 136 - Introduction to Topcoat Systems and Application Procedures Lab (2 cr)
Students are instructed and participate in the actual application of the topcoat paint. (SCC)

ABF 137 - Basic Color Matching and Paint Mixing Fundamentals (3 cr)
Students are introduced to the basic principles of color matching and paint mixing. Students practice color analysis and tinting. (SCC)

ABF 138 - Intermediate Interior and Exterior Surface Preparation Lab (3 cr)
Students are instructed and participate in sanding techniques and defects that may occur. (SCC)

ABF 139 - Intermediate Paint Application, Color Matching, and Paint Mixing Lab (3 cr)
Students are instructed and participate in advanced painting, color matching, and mixing of paints. (SCC)

ABF 140 - Materials and Cost Estimation Lab (2 cr)
Students are instructed and participate in writing an estimate for cost of materials and total repair. (SCC)

ABF 141 - Intermediate Finessing, Compounding, and Detailing (3 cr)
This course emphasizes practical applications of color matching, paint mixing and tinting procedures. (SCC)

ABF 211 - Shop Procedures (1 cr)
This course introduces students to basic shop operation including safety precautions of common collision repair, equipment work order, estimate reading, and parts ordering. (SCC)

ABF 212 - Introduction to Unibody (2 cr)
Students are instructed in measurement, correction of structural damage, and replacement of welded, bonded, and bolded parts. (SCC)

ABF 215 - Basic Metal Straightening and Panel Alignment (1 cr)
Students are instructed in metal and plastic damage diagnosis, repair, and body alignment. (SCC)

ABF 216 - Parts Identification (1 cr)
Students are instructed in automotive parts identification, ordering, and interpreting repair orders. (SCC)

ABF 224 - Mechanical Components (1 cr)
Students are instructed on mechanical parts of the vehicle and how to replace those parts. (SCC)

ABF 225 - Major Unibody and Frame Repair (1 cr)
Students are instructed on how to use multiple pulling of vehicle and how to diagnose damage of a unibody and body over frame vehicle. (SCC)

ABF 233 - Introduction to Industrial Safety and Hygiene (1 cr)
The course introduces safety precautions used in the collision industry. (SCC)

ABF 234 - Introduction to Interior and Exterior Surface Preparation (1 cr)
Students are instructed in preparation of the surface for topcoat of paint. (SCC)

ABF 236 - Introduction to Topcoat Systems and Application Procedures (1 cr)
Students are instructed in different paints and the application of those paints. (SCC)

ABF 238 - Intermediate Interior and Exterior Surface Preparation (1 cr)
Students are instructed in different techniques of sanding and application of undercoat products. (SCC)

ABF 239 - Intermediate Paint Application, Color Matching, and Paint Mixing (1 cr)
Students are instructed in advanced color matching and tinting colors to match the vehicle. (SCC)

ABF 240 - Materials and Cost Estimation (1 cr)
Students are instructed in cost of materials and the efficiency of the students' time. (SCC)

ABF 243 - Unibody and Frame Alignment and Repair (6 cr)
Students learn a variety of advanced applications of auto sheet metal work, body shop power tools and welding equipment techniques. Prerequisite: Concurrent enrollment in ABF 244, 245. (SCC)

ABF 244 - Advanced Metal Straightening and Panel Alignment Methods Lab (6 cr)
Students are instructed in and perform advanced methods of metal correction and panel alignment in a shop setting. (SCC)

ABF 245 - Estimating Applications (5 cr)
Students focus on advanced estimating procedures and techniques for a variety of auto repairs. Prerequisite: Concurrent enrollment in ABF 243, 244. (SCC)

ABF 247 - Advanced Metal Straightening and Panel Replacement Methods (1 cr)
Students are instructed in advanced methods of metal correction and panel alignment. (SCC)

ABF 253 - Intermediate Major Panel Replacement Applications (6 cr)
This course continues with the concepts introduced in ABF 123 with emphasis on plastic welding, patching and rust repair. Prerequisite: Concurrent enrollment in ABF 254, 255. (SCC)

ABF 254 - Intermediate Mechanical Components Applications (4 cr)
This course continues with the concepts introduced in ABF 124. Students practice diagnostic and repair techniques for energy absorbers, steering and cooling systems. Prerequisite: Concurrent enrollment in ABF 253, 255. (SCC)

ABF 255 - Intermediate Major Unibody and Frame Methods (6 cr)
This course continues with the theory and application of major unibody and frame repair. Hydraulic equipment, various welding techniques and repair of miscellaneous automobile components are emphasized. Prerequisite: Concurrent enrollment in ABF 253, 254. (SCC)

ABF 266 - Cooperative Education Seminar (1-2 cr)
For course description, see Cooperative Education. (SCC)

ABF 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SCC)

ABF 270 - Sheet Metal Restoration Welding Lab (3 cr)
Students are instructed in and perform various welding methods related to restoration and fabrication of sheet metal in a shop setting. (SCC)

ABF 271 - Sheet Metal Shaping Lab (3 cr)
Students are instructed in and perform metal shaping and parts fabrication in a shop setting. (SCC)

ABF 272 - Bucks and Forms Lab (2 cr)
Students are instructed in and perform the design and construction of various bucks, forms, and tooling used to shape metal in a shop setting. (SCC)

ABF 273 - Sheet Metal and Restoration and Repair (3 cr)
Students are instructed in and perform metal preparation and straightening and filling of damaged panels in a shop setting. (SCC)

ABF 275 - Sheet Metal Restoration Welding (1 cr)
Students are instructed in welding safety, equipment, and processes related to the restoration and fabrication of sheet metal. (SCC)

ABF 276 - Sheet Metal Shaping (1 cr)
Students are instructed in metallurgy, shrinking, stretching, shaping methods, tools and equipment. (SCC)

ABF 277 - Bucks and Forms (1 cr)
Students are instructed in the design and construction of various bucks, forms, and tooling used to shape metal. (SCC)

AUTOMOTIVE TECHNOLOGY

AUTO 100 - Introduction to Automotive (4 cr)
This course introduces students to what is required of entry level automotive technicians, including, but not limited to, shop safety, tool and equipment usage, locating service information and performing basic service maintenance. (SCC)

AUTO 101 - Electrical Circuitry Theory (5 cr)
The student will learn basic essential electronic concepts; circuits; batteries; starting systems and charging systems. Prerequisite: AUTO 102. (SCC)

AUTO 102 - Electrical Circuitry Applications (3 cr)
This course introduces students to Toyota T-TEN coursework. A brief overview of tire service, tools and equipment, lube service, Toyota information systems and the Toyota Dealership is presented. Prerequisite: Concurrent enrollment in AUTO 103. (SCC)

AUTO 103 - Electrical Wiring Diagrams (5 cr)
This course introduces students to the basic Toyota automotive tool system and testing equipment. Prerequisite: Concurrent enrollment in AUTO 102. (SCC)

AUTO 104 - Advanced Diagnosis of Electronics (4 cr)
This course introduces students to the first portion of the Technician Portfolio and the on-the-job portion of this course. Prerequisite: Dealership qualifications apply. (SCC)

AUTO 106 - Toyota Internship (1 cr)
This course continues the dealership training and TPORT work done as on-the-job training. (SCC)

AUTO 108 - Engine Theory (6 cr)
The student will learn the basic techniques of diagnosis of automotive electronic control engines. (SCC)

AUTO 109 - Engine Repair Applications (2 cr)
This basic course includes component ideas, troubleshooting and diagnosing. (SCC)

AUTO 110 - Introduction to Toyota (1 cr)
This course introduces students to Toyota T-TEN coursework. A brief overview of tire service, tools and equipment, lube service, Toyota information systems and the Toyota Dealership is presented. (SCC)

AUTO 111 - Theory of Brakes (6 cr)
This course is an introduction to the theory and operation of automotive brake systems, hydraulic systems and all types of brake systems. Prerequisite: Concurrent enrollment in AUTO 112. (SCC)

AUTO 112 - Applications of Brakes (4 cr)
This course provides practical shop experience in the application of the principles taught in AUTO 111. Areas of emphasis are hydraulic systems and brake systems. Prerequisite: Concurrent enrollment in AUTO 111. (SCC)

AUTO 113 - Theory of Auto Transmissions/Transaxles (6 cr)
This course provides an introduction to the theory and operation of automotive manual transmissions and transaxles, differential, drive line, and constant velocity joints. Prerequisite: Concurrent enrollment in AUTO 114. (SCC)

AUTO 114 - Application of Auto Transmissions/Tranaxles (4 cr)
This course provides practical shop experience and application of transmissions and transaxles. Prerequisite: Concurrent enrollment in AUTO 113. (SCC)

AUTO 115 - Theory of Electrical Systems (6 cr)
This course introduces students to the theory of basic electrical concepts including Ohm's Law, magnetism, analog and digital meters, and test equipment. Electronics and electrical components also are introduced. Prerequisite: Concurrent enrollment in AUTO 116. (SCC)

AUTO 116 - Diagnosis of Electrical Systems (4 cr)
Practical shop experience in the testing of electrical circuits is offered in this course. Related test equipment such as test lamps, voltmeters, ammeters and ohmmeters is used to diagnose electrical problems. Prerequisite: Concurrent enrollment in AUTO 115. (SCC)

AUTO 117 - Theory of Engine Performance (7 cr)
This course introduces students to the diagnosis and repair of automotive engines. Areas of emphasis includes ignition, fuel, exhaust and emissions control. Prerequisite: Concurrent enrollment in AUTO 118. (SCC)

AUTO 118 - Application of Engine Performance (5 cr)
Students are introduced to practical shop experience in the diagnosis and repair of automotive engines. Ignition, fuel, exhaust and emissions control are emphasized. (SCC)

AUTO 119 - Theory of Heating and Air Conditioning (4 cr)
This course introduces students to the theory of automotive heating and air conditioning systems. (SCC)

AUTO 120 - Application of Heat and AC (2 cr)
This course provides students with practical shop experience in the diagnosis and repair of heating and air conditioning systems. Prerequisite: Concurrent enrollment in AUTO 119. (SCC)

AUTO 122 - Engine Performance, Service, and Repair (5 cr)
Students learn advanced concepts introduced in AUTO 216 and 218. Theory and principles of computerized engine controls, automotive exhaust emissions, fuel injection and ignition systems are emphasized. Prerequisite: AUTO 215, 216. (SCC)

AUTO 123 - Toyota Engine Performance I (4 cr)
The student will learn the Basic techniques of diagnosis of automotive electronic control engines. (SCC)

AUTO 124 - Toyota Engine Performance I Lab (4 cr)
This basic course includes component idea, troubleshooting and diagnosing. Prerequisite: Concurrent enrollment in AUTO 123. (SCC)

AUTO 125 - Toyota Engine Repair (4 cr)
This course enables the student to understand engine operation, cleaning and safety operations. It includes the US and Metric system and troubleshooting and diagnosing. Prerequisite: Concurrent enrollment in AUTO 126. (SCC)

AUTO 126 - Toyota Engine Repair Lab (5 cr)
This course enables the student to remove, reinstall, teardown, overhaul, diagnosis of engine operation, service and repair. Prerequisite: Concurrent enrollment in AUTO 125. (SCC)

AUTO 129 - Theory of Manual Drive Train/Transmissions (5 cr)
Principles of steering systems, including four-wheel alignment, late model transmissions, transaxles and sub-assemblies are emphasized. Prerequisite: Concurrent enrollment in AUTO 130. (SCC)

AUTO 130 - Application of Manual Drive Train/Transmission (3 cr)
This course emphasizes application of principles presented in AUTO 129. Content areas include all types of steering systems, including four-wheel alignments; late model transmissions, transaxles and sub-assemblies. Prerequisite: Concurrent enrollment in AUTO 129. (SCC)

AUTO 131 - Theory of Suspension and Steering (5 cr)
This course introduces students to the basic principles of steering and suspension systems including MacPherson struts and four-wheel alignment. Prerequisite: Concurrent enrollment in AUTO 132. (SCC)

AUTO 132 - Application of Suspension and Steering (3 cr)
This course introduces students to the practical applications of steering and suspension systems including MacPherson struts and four-wheel alignment. Prerequisite: Concurrent enrollment in AUTO 131. (SCC)

AUTO 133 - Toyota Applications of Steering and Suspension Systems (4 cr)
This course includes instruction on the service and repair of all types of steering and suspension systems. (SCC)

AUTO 134 - Heating and Air Conditioning Lecture (5 cr)
Advanced knowledge of the refrigeration process, AC systems, ATC systems diagnosing and repairing all systems are explored in this course. (SCC)

AUTO 135 - Heating and Air Conditioning Application (4 cr)
This course includes in-depth advanced knowledge of the repair and service of the refrigeration process, AC Systems, ATC systems diagnosis and repair of all systems explored in this course. (SCC)

AUTO 136 - Toyota Theory of Brakes (5 cr)
This course is an introduction to the theory and operation of automotive brake systems, hydraulic systems and all types of brake systems. Prerequisite: Concurrent enrollment in AUTO 137. (SCC)

AUTO 137 - Toyota Brake Applications (4 cr)
This course provides practical shop experience in the application of the principles taught in AUTO 111. Areas of emphasis are hydraulic systems and brake systems. Prerequisite: Concurrent enrollment in AUTO 136. (SCC)

AUTO 138 - Manual Transmissions Lecture (4 cr)
This course provides an introduction to the theory and operation of automotive manual transmissions and transaxles, differentials, drive lines and constant velocity joints. Prerequisite: Concurrent enrollment in AUTO 139. (SCC)

AUTO 139 - Toyota Manual Transmission Application (3 cr)
This course provides practical shop experience and application of transmissions and transaxles. Prerequisite: Concurrent enrollment in AUTO 138. (SCC)

AUTO 140 - Automatic Transmissions Lecture (4 cr)
Principles of steering systems, including four-wheel alignment, late model transmissions, transaxles, and sub-assemblies are emphasized. Prerequisite: Concurrent enrollment in AUTO 141. (SCC)

AUTO 141 - Toyota Automatic Transmission Applications (5 cr)
This course emphasizes application of principles presented in AUTO 129. Content areas include all types of steering systems, including four-wheel alignments; late model transmissions, transaxles and sub-assemblies. Prerequisite: Concurrent enrollment in AUTO 140. (SCC)

AUTO 142 - Principles of Steering and Suspension Systems (4 cr)
This course introduces students to the practical applications of steering and suspension systems including MacPherson struts and four-wheel alignment. (SCC)

AUTO 150 - Chassis Maintenance (4 cr)
This course covers light maintenance, diagnosis and repair of automotive suspension, steering, heating and air conditioning systems. (SCC)

AUTO 151 - Drive Train Maintenance (6 cr)
This course covers light maintenance, diagnosis and repair of automotive engines, automatic transmission/transaxles, manual drive trains and axles. (SCC)

AUTO 201 - Toyota Brakes (3 cr)
Students learn to identify, describe the purpose, types of applications, and operation methods pertaining to automobile brake systems. (SCC)

AUTO 202 - Toyota Brakes Lab (3 cr)
This course introduces students to Toyota T-TEN coursework. A brief overview of tire service, tools and measurements, lube service, Toyota information systems, and electrical theory and circuitry is presented. Prerequisite: Concurrent enrollment in AUTO 201. (SCC)

AUTO 203 - Toyota Steering and Suspension (3 cr)
This course includes instruction on the service and repair of all types of steering and suspension systems. Prerequisite: Concurrent enrollment in AUTO 202. (SCC)

AUTO 204 - Toyota Steering and Suspension Lab (3 cr)
This course includes instruction on the service and repair of all types of Steering and Suspension systems. Prerequisite: Concurrent enrollment in AUTO 203. (SCC)

AUTO 209 - Toyota Internship (12 cr)
This continues the internship with the dealership using TPORT. Prerequisite: Concurrent enrollment in AUTO 208. (SCC)

AUTO 211 - Theory of Engines (7 cr)
This course is an introduction to the theory and operation of fundamentals of engine diagnosis, cylinder heads, valve trains, engine blocks, lubrication and cooling systems. (SCC)

AUTO 212 - Application of Engine Repair (5 cr)
This course provides practical shop experience in engine repair including engine diagnosis, cylinder head inspection, valve trains, engine blocks, lubrication and cooling fundamentals. (SCC)

AUTO 215 - Theory of Electronic Systems (5 cr)
Students learn the practical application of Ohm's Law, analog and digital meters, and test equipment. Hookup and testing of electronics and electrical components are presented. Prerequisite: AUTO 115, 116 and concurrent enrollment in AUTO 216. (SCC)

AUTO 216 - Diagnosis of Electronic Systems (3 cr)
Students obtain practical shop experience in the repair and replacement of electrical circuits. Related test equipment such as test lamps, voltmeters, ammeters, lab scopes and ohmmeters is used to diagnose electrical problems. Prerequisite: AUTO 115, 116 and concurrent enrollment in AUTO 215. (SCC)

AUTO 219 - Toyota Hybrid Service and Repair (3 cr)
Students explore the purpose, types of applications, and operation methods pertaining to hybrid service and repair. (SCC)

AUTO 220 - Toyota Engine Performance II (3 cr)
This course includes instruction on identifying the components of the standard Toyota engine. It explains the function of engine components and includes advanced shop application. (SCC)

AUTO 221 - Advanced Principles of Engine Performance, Air Conditioning, and Electrical (3 cr)
Students are offered advanced shop experience. The application of principles of computerized engine controls, automotive exhaust emissions, fuel injection and ignition systems is emphasized. (SCC)

AUTO 223 - Toyota Engine Performance II Lab (5 cr)
This course includes advanced knowledge of the purpose, types of applications, and operation methods pertaining to all types of transmissions and transaxles, and suspension systems. (SCC)

AUTO 225 - Toyota Heating and Air Conditioning (2 cr)
Advanced knowledge of the refrigeration process, AC systems, ATC systems diagnosing and repairing all systems are explored in this course. (SCC)

AUTO 226 - Hybrid Safety Service and Repair (4 cr)
This course includes in-depth knowledge of advanced knowledge of the repair and service of the refrigeration process, AC systems, ATC systems diagnosis and repair of all systems explored in this course. (SCC)

AUTO 227 - Theory of Hybrids (4 cr)
This course introduces students to the diagnosis and repair of electric vehicles. Areas of emphasis include alternative fuels, hybrid vehicles, batteries, and safety precautions. Prerequisite: Permission of instructor and concurrent enrollment in AUTO 228. (SCC)

AUTO 228 - Diagnosis of Hybrids (2 cr)
Students are introduced to practical shop experience in the diagnosis and repair of hybrid vehicles. Regenerative brake systems, hybrid vehicle transmissions and transaxles, and various manufacturers' vehicle type controls are emphasized. Prerequisite: AUTO 227 or permission of instructor and concurrent enrollment in AUTO 227. (SCC)

AUTO 230 - Safety Procedures for Hybrids (2 cr)
This course provides students with theory and practical shop experience in the safety procedures used when working on hybrid vehicles. Prerequisite: Permission of instructor. (SCC)

AUTO 236 - Toyota Internship (7 cr)
This is the final internship the student will have with the dealer to complete the Toyota T-TEN program. Prerequisite: Concurrent enrollment in AUTO 226. (SCC)

AUTO 266 - Cooperative Education Seminar (1-2 cr)
For course description, see Cooperative Education. (SCC)

AUTO 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SCC)

AUTO 270 - High Performance Engines (18 cr)
This course is designed for students interested in expanding their knowledge after completion of their A.A.S. degree in Automotive Technology. Special needs and skills required to work on high performance engines are emphasized. Prerequisite: A.A.S. degree in Automotive Technology or ASE Masters degree. (SCC)

AUTO 288 - Cooperative Education Work Experience (No Seminar) (1-18 cr)
For course description, see Cooperative Education. (SCC)

AVIATION MAINTENANCE TECHNOLOGY

ARCFT 115 - Introduction to General Aircraft Maintenance (1-5 cr)
This course introduces students to the basic concepts of airframe and powerplant mechanics including the use of tools and equipment, basic mechanics techniques, materials, and processes. FAA regulations, weight and balance control, basic electrical systems and instrumentation are emphasized. Prerequisite: Concurrent enrollment in ARCFT 116. (SCC)

ARCFT 116 - Introduction to General Aircraft Maintenance Shop (1-4 cr)
Students learn practical applications to basic aerodynamics and the use of tools and equipment. Basic mechanics techniques, materials and processes are emphasized. FAA regulations, weight and balance control, basic electrical systems, and instrumentation are covered. Prerequisite: Concurrent enrollment in ARCFT 115. (SCC)

ARCFT 117 - General Aircraft Maintenance (1-5 cr)
Students learn advanced concepts of ARCFT 115 including the use of tools and equipment, basic mechanics techniques, materials and processes. FAA regulations, weight and balance control, basic electrical systems, and instrumentation are emphasized. Prerequisite: ARCFT 115. (SCC)

ARCFT 118 - General Aircraft Maintenance Shop (1-4 cr)
Students learn advanced applications to aerodynamics and the use of tools and equipment. Advanced mechanics techniques, materials and processes are emphasized. FAA regulations, weight and balance control, electrical systems, and instrumentation applications are offered. Prerequisite: ARCFT 116 and concurrent enrollment in ARCFT 117. (SCC)

ARCFT 119 - Advanced General Aircraft Maintenance (1-5 cr)
Students are introduced to advanced concepts offered in ARCFT 117. The use of tools and equipment, basic mechanics techniques, materials, and processes are emphasized. A review of FAA regulations, weight and balance control, advanced electrical systems, and instrumentation concepts are presented. Prerequisite: ARCFT 117 and concurrent enrollment in ARCFT 120. (SCC)

ARCFT 120 - Advanced General Aircraft Maintenance Shop (1-4 cr)
Students apply advanced knowledge of aerodynamics and use of tools and equipment. Advanced mechanics techniques, materials and processes are emphasized. A review of FAA regulations, weight and balance control, electrical systems, and instrumentation applications are offered. Prerequisite: ARCFT 118 and concurrent enrollment in ARCFT 119. (SCC)

ARCFT 123 - Composite Technology (5 cr)
Develops a knowledge of: History of composites, composite fabrication, inspection and repair of composites. Methods covered include preimpregnated, wet lay up, vacuum infusion process, and Resin Transfer Molding. Emphasis is placed on health and safety. (SCC)

ARCFT 131 - Composite Structure Assembly (5 cr)
Learners will utilize appropriate materials and processes to assemble structures made of composite materials. Lab experience will also cover mold making and safety in handling resins, reinforcements, and related materials. Prerequisite: ARCFT 123. (SCC)

ARCFT 132 - Applied Manufacturing Project (2 cr)
Students practice applied projects related to fabrication techniques that may include interdepartmental projects, CAD design, shop skills, measuring, fabrication, machining, composites, and quality control. (SCC)

ARCFT 135 - Basic Airframe Maintenance (1-5 cr)
This course introduces students to basic aerodynamics, woodworking, aircraft fabric finishing, and aircraft sheet metal and welding. Prerequisite: ARCFT 119 and concurrent enrollment in ARCFT 136. (SCC)

ARCFT 136 - Basic Airframe Maintenance Shop (1-5 cr)
Students apply their skills in woodworking, aircraft fabric and finishing, and aircraft sheet metal and welding. Prerequisite: ARCFT 120 and concurrent enrollment in ARCFT 135. (SCC)

ARCFT 137 - Airframe Structures (1-5 cr)
This course presents concepts in aircraft sheet metal, aircraft assembly and disassembly, and rigging. Prerequisite: ARCFT 135 and concurrent enrollment in ARCFT 138. (SCC)

ARCFT 138 - Airframe Structures Shop (1-5 cr)
Students apply their knowledge in aircraft sheet metal, aircraft assembly and disassembly, controls and control surfaces, and rigging. Prerequisite: ARCFT 136 and concurrent enrollment in ARCFT 137. (SCC)

ARCFT 139 - Airframe Systems (1-5 cr)
Students are introduced to aircraft airframe 100-hour and annual inspections, aircraft landing gear systems, and hydraulic and pneumatic systems. Prerequisite: ARCFT 137 and concurrent enrollment in ARCFT 140. (SCC)

ARCFT 140 - Airframe Systems Shop (1-5 cr)
Students prepare for aircraft airframe 100-hour and annual inspections, aircraft landing gear systems, and hydraulic and pneumatic systems. Prerequisite: ARCFT 138 and concurrent enrollment in ARCFT 139. (SCC)

ARCFT 235 - Advanced Airframe Systems (1-5 cr)
Students learn various types of aircraft systems including instrument and electrical, navigation and communication, and position and warning classifications. Prerequisite: ARCFT 139 and concurrent enrollment in ARCFT 236. (SCC)

ARCFT 236 - Advanced Airframe Systems Shop (1-5 cr)
This course emphasizes the applications of various aircraft systems including instrument and electrical, navigation and communication, and position and warning systems. Prerequisite: ARCFT 140 and concurrent enrollment in ARCFT 235. (SCC)

ARCFT 237 - Integrated Airframe Powerplant Maintenance (1-5 cr)
This course includes theory and practice of integrated aircraft inspections, ice and rain control systems, and fire protection systems. Prerequisite: ARCFT 235 and concurrent enrollment in ARCFT 238. (SCC)

ARCFT 238 - Integrated Airframe Powerplant Maintenance Shop (1-5 cr)
Students apply their skills in the practice of integrated aircraft inspections, ice and rain control systems, and fire protection systems. Prerequisite: ARCFT 236 and concurrent enrollment in ARCFT 237. (SCC)

ARCFT 245 - Aircraft Engines I (1-5 cr)
This course addresses theoretical and practical instruction in aircraft engine theory as well as maintenance and inspection. Prerequisite: ARCFT 119 and concurrent enrollment in ARCFT 246. (SCC)

ARCFT 246 - Aircraft Engines Shop I (1-5 cr)
Students apply the theories learned in ARCFT 245 with shop practice in theoretical and practical maintenance as well as servicing and inspecting aircraft engines. Prerequisite: ARCFT 120 and concurrent enrollment in ARCFT 245. (SCC)

ARCFT 247 - Aircraft Engines II (1-5 cr)
This course addresses theoretical and practical instruction in aircraft engine overhauls, maintenance, operation and inspections. Prerequisite: ARCFT 245 and concurrent enrollment in ARCFT 248. (SCC)

ARCFT 248 - Aircraft Engines Shop II (1-5 cr)
Students apply the theories learned in ARCFT 247 with shop practice in practical maintenance as well as servicing and inspecting aircraft engine overhauls, maintenance, operation and inspections. Prerequisite: ARCFT 246 and concurrent enrollment in ARCFT 247. (SCC)

ARCFT 255 - Powerplant Systems and Components I (1-5 cr)
This course offers practical and theoretical instruction in auxiliary powerplants; unducted fans; engine fire protection systems; lubrication systems; fuel and fuel metering systems; and engine electrical, ignition and starting systems. Prerequisite: ARCFT 247 and concurrent enrollment in ARCFT 256. (SCC)

ARCFT 256 - Powerplant Systems and Components I Shop (1-5 cr)
This course offers practical shop experience in powerplant systems including auxiliary powerplants; and fire, lubrication, fuel and electrical systems. Prerequisite: ARCFT 248 and concurrent enrollment in ARCFT 255. (SCC)

ARCFT 257 - Powerplant Systems and Components II (1-5 cr)
This course offers theory on propellers as well as powerplant airflow and cooling exhaust systems. Prerequisite: ARCFT 255 and concurrent enrollment in ARCFT 258. (SCC)

ARCFT 258 - Powerplant Systems and Components II Shop (1-5 cr)
This course offers practical shop experience in propeller maintenance as well as powerplant cooling and exhaust systems. Prerequisite: ARCFT 256 and concurrent enrollment in ARCFT 257. (SCC)

ARCFT 275 - Theory and Review - Airframe or Powerplant (1-10 cr)
This class provides students with additional time to meet Federal Aviation Administration (FAA) requirements. Grade option: Pass/fail. Prerequisite: Completion of all six quarters of ARCFT courses. (SCC)

ARCFT 276 - Airframe or Powerplant Shop (1-10 cr)
This class provides students with additional lab time to meet Federal Aviation Administration (FAA) requirements. Grading option: Pass/fail. Prerequisite: Completion of all six quarters of ARCFT courses. (SCC)

AVIONICS

AVIO& 103 - Aircraft Wiring Systems (2 cr)
Students will learn fundamentals, troubleshooting, and repair of aircraft wiring, including acceptable standards for visual, electrical, and mechanical quality. (SCC)

AVIO& 104 - Aircraft Fiber Optic Systems (2 cr)
This course is designed to prepare students to install, maintain, troubleshoot, and repair fiber optics in the aviation industry. Participants will learn to work safely with materials used in fiber optics, while learning to handle materials properly. (SCC)

AVIO& 201 - Aircraft Digital Electronic Instrument Systems (8 cr)
Students will learn about basic aircraft digital electronic instrument systems including: computer math, numbering systems, logic expressions, gates, and microprocessors. Through hands-on experiments students will learn to properly and safely use test equipment to analyze and troubleshoot digital circuits. This class is equivalent to AVIO 211 and AVIO 212 combined. (SCC)

AVIO& 202 - Avionics Systems for Airframe and Power Plant (8 cr)
Students will learn the fundamentals of aircraft avionics systems for airframe and powerplant including: aerodynamic principles, aircraft structures, communication systems, power distribution systems, avoidance and detection systems, master warning and annunciator systems, radar systems, lighting systems, power plant systems, and airframe systems. In-class experiments will provide a hands-on approach to system troubleshooting and repair. (SCC)

AVIO& 203 - Avionics Communications (2 cr)
Students will study the requirements for the FCC General Radiotelephone Operator License and Ship Radar Endorsement utilizing FCC guidelines, fundamentals of communications, and key topics. (SCC)

AVIO& 204 - Principles of Avionics Troubleshooting (2 cr)
This course is designed to identify and isolate avionics system faults through a logical approach using a four step troubleshooting method. (SCC)

AVIO 211 - Basic Avionic Digital Circuits (4 cr)
Students will learn about numbering systems, logic expressions, logic families, integrated circuits, buffers and inverters, and digital and analog switches and how they relate to basic aircraft digital electronic instrument systems. This class, combined with AVIO 212 is equivalent to AVIO& 201. (SCC)

AVIO 212 - Digital Communications Systems (4 cr)
Students will learn about aircraft digital monitoring, alerting, and fault systems, microprocessors, TDM and FDM, data communication systems, and aircraft data bus systems. This class, combined with AVIO 211 is equivalent to AVIO& 201. (SCC)

BAKING: PROFESSIONAL PASTRIES AND SPECIALTY CAKES

BAK 101 - Introduction to Baking and Pastries (1 cr)
Students learn terminology of basic baking and methods such as ingredient identification, volume, weights and measurements, and mixing types. (SCC)

BAK 110 - Artisan Breads (5 cr)
Students learn to create hand-crafted, preservative-free breads with natural starters, long-fermentation periods and use of sponges and sour starters. (SCC)

BAK 111 - Pastries (7 cr)
Students learn to produce a variety of yeast breads including Danish, cinnamon rolls, coffee cakes, croissants, artisan and specialty pastries. (SCC)

BAK 120 - Special Occasion Cakes (2 cr)
This course introduces students to techniques needed to produce birthday, wedding and anniversary cakes. (SCC)

BAK 121 - Tortes and Gateau (2.5 cr)
Students learn to produce a variety of European style torts and gateau, bakery style cakes, and sculptured and wedding cakes. (SCC)

BAK 130 - Sculptured Cakes (2.5 cr)
Students learn advanced techniques in producing sculptured, hand-crafted specialty occasion cakes. (SCC)

BAK 131 - Rolled Fondant (2.5 cr)
This course emphasizes the development of advanced techniques in European rolled fondants. (SCC)

BAK 140 - Yeast Doughs (1 cr)
This course introduces students to a variety of mixing methods used to create yeast doughs and breads. (SCC)

BAK 248 - Wedding Cakes (2.5 cr)
Students learn advanced techniques in decorating artistic wedding cakes. (SCC)

BAK 266 - Cooperative Education Seminar (1-2 cr)
For course description, see Cooperative Education. (SCC)

BAK 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SCC)

BAK 288 - Cooperative Education Work Experience (No Seminar) (1-18 cr)
For course description, see Cooperative Education. (SCC)

BIOLOGY

BIOL 100 - Environmental Biology (5 cr)
This course is the study of man in his environment for nonscience majors and vocational program students. Biological concepts presented in this course include energy production and utilization, waste generation and disposal, population growth and control, and ecosystem construction and destruction. How these concepts are influenced by human activities is emphasized. This course meets A.A. lab science requirements. (SCC, SFCC)

BIOL 105 - General Biology w/Lab (5 cr)
An integrated view of the living world including the nature of sciences, evolution of biological organization, composition and organization of living substances, metabolism, control, reproduction, heredity and ecological relationships. DOES NOT SATISFY ANY AA DEGREE REQUIREMENTS AND IS NOT TRANSFERABLE. Prerequisite: Currently enrolled in the HIM program or permission of instructor. (SCC)

BIOL 110 - Insects and People (5 cr)
This course is a systematic approach to study insect interactions with one another, their physical and chemical environments, and with people. The course includes competition within and between populations and extends through communities, ecosystems and the biosphere with emphasis on interactions among insects and humans. (SFCC)

BIOL 115 - Biology for Elementary Education (5 cr)
This course introduces cellular, organismal, and ecosystem biology, including human systems, for students majoring in elementary education. Inquiry based biological investigations that support science instruction outlined in the National Science Education Standards and Washington Essential Academic Learning Requirements are emphasized. Prerequisite: Permission of instructor. (SCC)

BIOL& 160 - General Biology w/Lab (5 cr)
An integrated view of the living world including the nature of sciences, evolution of biological organization, composition and organization of living substances, metabolism, control, reproduction, heredity and ecological relationships. (SCC, SFCC)

BIOL 204 - Human A & P 1 (5 cr)
Human body structure and function with emphasis on introductory cytology and histology; the skeletal, muscular and nervous systems; and the sense organs. DOES NOT SATISFY ANY AA DEGREE REQUIREMENTS AND IS NOT TRANSFERABLE. Prerequisite: BIOL 105 or permission of instructor. (SCC)

BIOL 205 - Human A & P 2 (5 cr)
Continued study of human body structure and function with emphasis on circulatory, respiratory, digestive, urinary, endocrine and reproductive systems. DOES NOT SATISFY ANY AA DEGREE REQUIREMENTS AND IS NOT TRANSFERABLE. Prerequisite: BIOL 105, 204. (SCC)

BIOL& 221 - Majors Ecology/Evolution: w/Lab (5 cr)
Intended for students majoring in life sciences, this course provides an introduction to ecology and evolution. Topics cover the origin, evolution, and characteristics of living things and the processes that influence them. Prerequisite: BIOL& 222. (SCC, SFCC)

BIOL& 222 - Majors Cell/Molecular: w/Lab (5 cr)
Intended for students majoring in life sciences, this course provides an introduction to cellular and molecular biology. Topics include cells, cellular respiration, photosynthesis, the cell cycle and genetics. It also fulfills introductory biology requirement for the health sciences. A prior course in chemistry is highly recommended. (SCC, SFCC)

BIOL& 223 - Majors Organismal Phys: w/Lab (5 cr)
Intended for students majoring in life sciences, this course explores how plants and animals work. Topics covered include development, transport, nutrition, osmoregulation, sensory systems, and reproduction. Prerequisite: BIOL& 222. (SCC, SFCC)

BIOL 229 - Field Studies (1 cr)
Coastal temperate rain forest and marine environments are investigated as students prepare specialized topics. Emphasis on integration of topics by visiting ecosystems on the Olympic Peninsula and participating in discussions. Prerequisite: Concurrent enrollment in BIOL& 222 or BOT 113 or ZOOL 121 or permission of the instructor. (SFCC)

BIOL& 241 - Human A & P 1 (5 cr)
Human body structure and function with emphasis on introductory cytology and histology; the skeletal, muscular and nervous systems; and the sense organs. Prerequisite: BIOL& 160 or BIOL& 222 with a 2.0 or better or permission of instructor. (SCC, SFCC)

BIOL& 242 - Human A & P 2 (5 cr)
Continued study of human body structure and function with emphasis on circulatory, respiratory, digestive, urinary, endocrine and reproductive systems. Prerequisite: BIOL& 241 and either BIOL& 160 or 222 or permission of instructor. (SCC, SFCC)

BIOL 244 - Genetics (5 cr)
This course introduces basic principles of inheritance, the significance of the cell cycle events to variation, genetic links to physical traits, mutations, DNA repair, gene analysis and linkage. Applications and molecular techniques such as DNA sequencing, cloning, genomics and proteomics are introduced. Classical experimental methods and findings are examined in detail. Problem-solving skills that require logic and mathematical understanding are emphasized. Prerequisite: BIOL& 160 or 222. (SCC, SFCC)

BIOL& 260 - Microbiology (5 cr)
Introduction to the study of bacteria, viruses, rickettsia, spirochetes, fungi and protozoa with emphasis on microbial structure, physiology, genetics, physical and chemical control, and the role of microorganisms in disease and immunology. Laboratory includes staining, media making, isolation, cultivation and identification techniques of bacteria. Meets A.A. degree lab science requirement. Prerequisite: BIOL&160 or 222 or permission of instructor. (SCC, SFCC)

BIOL 270 - Biological Investigation (3 cr)
This course introduces students to the fundamentals of scientific methods, experiment design and execution, including data collection and analysis, scientific writing, and use of biological literature. Prerequisite: BIOL& 160, 222, or instructor approval. (SFCC, SCC)

BIOL 280 - Human Cadaver Prosection (3 cr)
This is a three-credit laboratory dissection course in which students dissect a human cadaver. Dissections focus on internal organ systems and are conducted by body region in the following areas: Head, thorax, abdomen, pelvis and cranium. Areas of study include regional surface anatomy, compartments, anatomical and physiological relationships, musculoskeletal structures, vasculature, and nerve supply of the extremities. Class can be repeated up to three times allowing student to develop beginning, intermediate and advanced dissection skills and knowledge. (Repeatable up to 9 credits). Grading option: Pass/fail. Prerequisite: BIOL& 242 and permission of instructor. (SFCC)

BIOMEDICAL EQUIPMENT TECHNICIAN

BIOEQ 199 - Medical Terminology for Biomedical Equipment Technology (2 cr)
This course presents a study of basic medical terminology for students interested in the field of biomedical equipment technology. Prefixes, suffixes, word roots, combining forms, special endings, plural forms and abbreviations are included in the content. A programmed learning, word building system is used to learn word parts that are used to construct or analyze new terms. Definitions, word usage and pronunciation are emphasized. Prerequisite: Permission of the instructor and enrollment in the biomedical equipment technician program. (SCC)

BIOEQ 242 - Physiology for Biomedical Equipment Technology (3 cr)
Students learn the underlying physiological principles with which medical equipment is designed to interface. A specific level of understanding is expected of students, with emphasis on the cells and the nervous, muscular, circulatory and respiratory systems. Prerequisite: Permission of the instructor and enrollment in the Biomedical Equipment Technician program and concurrent enrollment in BIOEQ 251, 252. (SCC)

BIOEQ 251 - Biomedical Instrumentation Patient Monitoring and Clinical (10 cr)
Students learn the operation of several biomedical instruments by thorough analysis of electronic circuitry. These instruments are directly related to patient monitoring and clinical applications. Prerequisite: Permission of the instructor and enrollment in the Biomedical Equipment Technician program and concurrent enrollment in BIOEQ 242, 252. (SCC)

BIOEQ 252 - Biomedical Instrumentation Laboratory (6 cr)
Students receive hands-on experience with circuits and equipment discussed in BIOEQ 251. Prerequisite: Permission of the instructor and enrollment in the BioMedical Equipment Technician program and concurrent enrollment in BIOEQ 242, 251. (SCC)

BIOEQ 271 - Biomedical Equipment Technology Clinical Rotation (10 cr)
Students are assigned to specific healthcare facilities and apply their knowledge to develop additional skills which enhance their understanding of healthcare environments. Their learning experience is strengthened by functioning within those environments. Prerequisite: BIOEQ 242, 251, 252 and concurrent enrollment in BIOEQ 272. (SCC)

BIOEQ 272 - Biomedical Seminar (4 cr)
Students discuss technical problems, ethics, safety concerns and other situations that may develop during clinical rotation. Students are assisted with the final draft of their resumes. Prerequisite: BIOEQ 242, 251, 252 and concurrent enrollment in BIOEQ 271. (SCC)

BOTANY

BOT 111 - Botany: Plant Structure and Function (5 cr)
A study of anatomy, physiology and genetics of flowering plants. Meets A.A. degree lab science requirement. Prerequisite: BIOL& 160. (SCC)

BOT 112 - Botany: Survey of the Plant Kingdom (5 cr)
Representative types of plants from the major groups of the plant kingdom with emphasis on structure and taxonomy. Meets A.A. degree lab science requirement. Prerequisite: BIOL& 160. (SCC, SFCC)

BOT 113 - Field Botany (5 cr)
Proficiency acquired in use of plant identification keys. Through laboratory experiences and field trips the student will learn to collect, press and identify by species any plants in Southeastern Washington. (SFCC)

BUSINESS MANAGEMENT

BMGT 325 - Legal Issues for Managers (5 cr)
Formerly MMGT 325. In this case study based course, students will learn proper policy and procedure in the workplace including laws regarding discrimination, safety, contracts, corporate structures , wage and hour, labor/union, negligence and worker's compensation. Prerequisite: Applied BAS degree students only. (SFCC)

BMGT 340 - Applied Financial Management (5 cr)
This course will provide the application of financial management principles including the analysis of financial statements for planning and control, cash and capital budgeting, risk and return, capital structure, time value of money, and financing for both short and long-term requirements. Students will apply the basic tools and techniques used to evaluate small and medium-sized firms or entrepreneurial proposals as potential investment opportunities. Prequisite: Applied BAS degree students only. (SFCC)

BMGT 341 - Applied Principles of Management (5 cr)
Formerly MMGT 341. This course is the study of the theory and practice of management. Emphasis is placed on functions and strategy, structure, managerial planning, and decision making as well as the processes of organizing, leading, and controlling. Current organizational issues and trends will be integrated. Prerequisite: Applied BAS degree students only. (SFCC)

BMGT 342 - Project Management (5 cr)
Formerly MMGT 342. This course is the study of the common framework and practices for applying project management practices in business. Topics include processes, interactions and common practices in the field of project management. Emphasis is placed on the knowledge area defined by the Project management Institute body of knowledge. This course will provide practical exercises and case studies. Prerequisite: Applied BAS degree students only. (SFCC)

BMGT 343 - Logistics and Inventory Control (5 cr)
Formerly MMGT 343. This course introduces basic aspects of distribution, logistics and supply chain. A holistic approach is offered on the different functions and operations and how they interrelate and interact. Topics include key elements fundamental to logistic functions and their processes. Emphasis is placed on manufacturing and materials management and the supply chain relative to inventory requirements. This course provides practical exercises and case studies. Prerequisite: Applied BAS degree students only. (SFCC)

BMGT 344 - Business Information Systems (5 cr)
Formerly MMGT 344. This course uses a case approach to business problem solving using advanced spreadsheeting and database applications. Students will apply critical thinking skills and logical design skills when preparing information for a business audience. Prerequisite: Applied BAS degree students only. (SFCC)

BMGT 350 - Marketing for Managers (5 cr)
Formerly MMGT 350. Focus on the art and science of attracting, retaining and growing customers by creating superior customer value to the chosen target market. Build skills through case studies and through practice of marketing techniques. Current global issues and trends will be integrated. Prerequisite: Applied BAS degree students only. (SFCC)

BMGT 393 - Independent Study (1-5 cr)
Independent study is offered within the Bachelor of Applied Science in Applied Management program in each discipline and is designated by the course number BMGT 393. Students are not to exceed a total of 10 credits of independent study during their tenure at Community Colleges of Spokane. Requirements and limitations concerning courses are available from the Dean of the Bachelor of Applied Science in Applied Management program. Prerequisite: Applied BAS students only. (SFCC)

BMGT 428 - Human Resource Management (5 cr)
Formerly MMGT 428. This course provides an understanding of how organizations can gain a sustainable competitive advantage through the effective utilization of their employees. Human resource departments today have an active role in strategic planning and decision making within their organizations. The purpose of this course is to familiarize students with the tools and practices of human resource management and an appreciation for the changes they can effect by understanding how best to manage people and be aware of the challenges and opportunities likely to be encountered. Prerequisite: Applied BAS degree students only. (SFCC)

BMGT 430 - Manufacturing Management (5 cr)
Formerly MMGT 430. This course provides an introduction of the different types of manufacturing environments and associated modern operations concepts. The course outlines an historical perspective and working definition of manufacturing management and common language used. Content covers basic quality principles, process management, systems, production plan and control, Just-in-Time (JIT), science in manufacturing, and types among others. Emphasis is placed on a lean daily management system and principles of lean production. This course provides practical exercises and case studies. Prerequisite: Applied BAS degree students only. (SFCC)

BMGT 435 - Operations Management (5 cr)
Formerly MMGT 435. The Operations Management (OM) course provides an introduction of the multidisciplinary nature of operations management and the associated modern concepts. It outlines an historical perspective, working definition and a common language used. The Operations Management course studies daily management activities of an organization. It prepares students with techniques and objectives to help service-oriented and/or manufacturing-oriented organizations achieve their objectives. Operations Management deals with logistics, techniques and methods needed to achieve management objectives relative to quality, quantity, schedules and costs. This course provides practical exercises and case studies. Prerequisite: Applied BAS degree students only. (SFCC)

BMGT 440 - Healthcare Management (5 cr)
This course provides students with an overview of concepts and issues related to healthcare management. Through the examination of management topics and healthcare situations, the student will explore the skills and knowledge needed to be successful in a diverse healthcare environment. Topics include: healthcare leadership, organizational design as it relates to the uniqueness of healthcare organizations, managing professionals, and diversity in the workplace. Prerequisite: Applied BAS degree students only. (SFCC)

BMGT 450 - Entrepreneurship (5 cr)
This course explores how entrepreneurs develop, launch, and manage small business ventures utilizing creative and innovative managerial practices. Students will examine relevant entrepreneurship theory and practical techniques used by successful entrepreneurs. Students will focus on entrepreneurial opportunities, sources for start-up ideas, and the special challenges of starting a new venture, or changing an existing one. Prerequisite: Applied BAS degree students only. (SFCC)

BMGT 491 - Capstone Project (5 cr)
Formerly MMGT 491. This course provides the opportunity for students to integrate and demonstrate the concepts of management to the real world. Students will complete a comprehensive analysis of a business and develop a long range, strategic plan including implementation and recommendations for change. Students will integrate and synthesize competencies from across the program and exhibit their ability to participate in and contribute to their chosen professional field through the successful completion of a written project. Prerequisite: Applied BAS degree students only. (SFCC)

BMGT 492 - Business Management Internship (5 cr)
Formerly MMGT 492. This course is designed to provide students with practical training work experiences in a business management setting. Prerequisite: Applied BAS degree students only. (SFCC)

BUSINESS TECHNOLOGY

BT 100 - Beginning Keyboarding (1 cr)
This course introduces students to proper touch keyboarding skills techniques. Emphasis on development of speed and accuracy. Grading option: Pass/fail. (SCC, SFCC)

BT 101 - Keyboarding (5 cr)
Students learn beginning computer keyboarding that includes the mastery of the alphabetic keyboard using the "key-by-touch" method. Word processing software is presented in conjunction with formatting theory for personal and business letters, memoranda, reports, centering and simple tabulation techniques. Students develop proofreading and editing skills. (SFCC)

BT 102 - Document Processing (5 cr)
This course addresses formatting theory and application instruction for personal and business letters, tables, memoranda and reports using word processing software. Students develop skills in editing, formatting and mechanics of written expressions. Speed and accuracy are emphasized. The course is a continuation of BT 101 and utilized as a refresher course. (SFCC)

BT 103 - Formatting (5 cr)
Word processing software features, letters, memoranda, tables, reports and special business forms formats are taught. Techniques for speed and accuracy development are presented, and instruction includes the development of proofreading, editing, formatting and mechanics of written expression. Prerequisite: BT 102 or permission of instructor. (SFCC)

BT 104 - Basic Grammar for Business I (5 cr)
Students review the fundamentals of grammar including basic parts of speech, writing simple sentences, and subject/verb identification and agreement. Prerequisite: Reading assessment score of 20-39 percentile. (SCC)

BT 105 - Basic Grammar for Business II (5 cr)
Students review fundamental writing skills with major emphasis on improving sentence structure and grammar. Accuracy in spelling, punctuation, vocabulary and proofreading is stressed. Prerequisite: BT 104. (SCC)

BT 106 - Computing Essentials (5 cr)
Develops beginning computer skills in a Windows-based environment. Includes mastery of the alphabetic keyboard using the "key-by-touch" method, understanding of MS Windows features and terminology, effective application of file management techniques, use of Internet navigation skills, and effective application of beginning Word skills in the creation and formatting of business documents. (SCC, SFCC)

BT 107 - Business Communications (5 cr)
This course focuses on the basic elements of grammar, punctuation, capitalization, number formats, abbreviations, symbols, and proofreading in preparation for typical business communication messages. (SFCC)

BT 108 - Business Communications (3 cr)
This class concentrates on the mechanics of punctuation and continued review of spelling. Prerequisite: BT 107. (SFCC)

BT 110 - Strategies for Student Success (2 cr)
This course for new college students teaches success strategies by helping students to become familiar with the campus, to discover resources available to assist them in their collegiate journey. Students will learn time management skills, note taking techniques and study strategies. Students will also learn online learning systems and how to interact effectively with instructors. The class focuses on pathways for students pursuing a degree in any business field and developing an academic plan. (SFCC)

BT 121 - Office Procedures Update (1-3 cr)
A course or courses to include selected material from the following procedural areas: receptionist duties, telephone skills, mail handling, reprographics, ordering and storage of supplies, office careers, travel arrangements, meeting planning and taking of minutes, filing and records management, financial transactions, time management, and office management. (SFCC)

BT 127 - Human Relations and Professional Development (1-3 cr)
This course includes selected material from the following areas: how to get along with people on the job and in your life; the importance of communication; the qualities of business success; your professional and personal image; and the elements of personal development covering grooming, business dress, nutrition and exercise. (SFCC, SCC)

BT 128 - Office Math Applications (1-5 cr)
Students learn mathematical concepts for the office employee including review of addition, subtraction, multiplication and division, and the use of fractions, percentages and decimals as they pertain to business office applications. Students work with numbers and solve business problems using a 10-key pad including special features found on most modern business desk calculators and apply basic business math formulas. (SCC)

BT 152 - College and Career Strategies (3-5 cr)
Students learn to identify and develop behaviors that lead to personal and academic success. Students learn skills to increase their success in college and to help them achieve their academic and professional goals. (SCC)

BT 155 - Records Information Management (3 cr)
Records management emphasizes the principles and practices of effective management of information for both manual indexing and automated records systems. The basic manual indexing systems concept covers all standard indexing rules published by the Association of Records Managers and Administrators (ARMA). The automated records systems provide the opportunity to work with the kinds of computer databases encountered in business. The process of coordinating both the manual indexing rules and computer indexing rules are stressed. The course emphasizes the need to understand the record's life cycle-from creation to disposition-within the structure of any given organization. The course stresses the federal legislation designed to protect information and the privacy of the individual or organization. The course prepares the student for several career options within the records/information management field. (SFCC)

BT 160 - Job Preparation Techniques (3 cr)
Students prepare for the job search process. Self-analysis, goal setting, personal appearance and grooming, communicating ideas through individual and group presentations, resume writing, application cover letter writing, interviewing practice, and other techniques are emphasized. Prerequisite: SCC: Second-year student or permission of instructor; SFCC: No prerequisite. (SCC, SFCC)

BT 165 - Word Processing (5 cr)
Students learn word processing functions such as formatting, maintaining and printing documents including tables and long manuscripts. Using writing tools, manipulating text among and within documents, creating and formatting tables, adding visual appeal, creating charts, and importing data are emphasized. Formatting with macros and styles, and sorting and selecting text and data are presented using Microsoft Word. Critical thinking skills, the mechanics of written expression, proofreading, editing and formatting are included. (SCC)

BT 172 - Publisher (2 cr)
This class offers beginning and advanced instruction in Microsoft Publisher. (SFCC)

BT 196 - Skillbuilding (1 cr)
This individualized program builds keyboarding speed and improves accuracy. It may be taken a maximum of three times. Grading option: Pass/fail. (SCC, SFCC)

BT 197 - Skillbuilding (1 cr)
This individualized program builds keyboarding speed and improves accuracy. It may be taken a maximum of three times. Grading option: Pass/fail. Prerequisite: BT 196, 197, 199. (SFCC)

BT 199 - Skillbuilding (1 cr)
This individualized program builds keyboarding speed and improves accuracy. It may be taken a maximum of three times. Grading option: Pass/fail. (SFCC)

BT 201 - Information Processing (5 cr)
Information processing techniques using word processing, database, spreadsheet and presentation software are taught in this course. Students complete office projects requiring critical thinking and problem-solving skills. Assignments include producing reports using information from databases and spreadsheets, formatting intricate tables and graphs, and correspondence with special features. (SFCC)

BT 204 - Spreadsheet Design and Analysis (5 cr)
This is an in-depth Microsoft Excel course. Students use the software to develop and analyze business spreadsheets. Topics include: creation and formatting of worksheets, workbooks, tables; application of formulas and functions; creation of charts and objects; use of conditional formatting and filtering. This course will also help prepare students for the MS Excel Certification exam. (SCC)

BT 205 - Database Design and Analysis (5 cr)
This is an in-depth Microsoft Access course. Students will learn data management concepts and the use and creation of relational databases as a business tool. Topics include: views, simple and advanced queries, create and modify forms and sub-forms, reports, primary and foreign keys, importing data, formulas, controls and conditional formatting. This course will also help prepare students for the MS Access Certification exam. (SCC)

BT 206 - Electronic Records Management (3 cr)
This course emphasizes the principles and practices of the management of information for both manual indexing and automated records systems. The course analyzes the record's life cycle from creation to disposition within the structure of any given organization. Emphasis is placed on the classification of records, application of filing rules, and the organization and management of manual and electronic information. The basic indexing systems concepts cover a variety of indexing schemes for paper and electronic records. This class provides the opportunity to work with computer databases encountered in business. Students will research and present up-to-date information on retention, retrieval, and storage of records and federal legislation designed to protect information and the privacy of the individual or organization. (SCC)

BT 231 - Office Procedures (5 cr)
This course presents the basic office duties of a receptionist. Answering the telephone, mail handling, reprographics, ordering and storage of supplies. Professionalism and human relations concepts also are presented. Guest speakers and tours may be scheduled. (SCC, SFCC)

BT 232 - Office Procedures II (5 cr)
This course prepares students to handle advanced office tasks required of an administrative assistant. Projects require using technology and organizational skills in handling office communications and managing meetings. Critical-thinking and decision-making abilities are emphasized. (SFCC)

BT 233 - Directed Office Practice (3-6 cr)
Students perform at beginning, intermediate and/or advanced levels of office work in a professional environment. A minimum of one or two hours of lab daily is required. Prerequisite: Permission of instructor. (SCC)

BT 234 - Administrative Professional Practicum (5 cr)
Students gain hands-on experience using current integrated office software while working at their own office work stations using electronic mail, calendaring, scheduling and graphics. Students complete simulated office projects requiring application of information, work organization, perception, human relations skills, prioritizing and decision-making skills. (SFCC)

BT 235 - Machine Transcription (5 cr)
Machine transcription techniques are presented in this course and demonstrated with emphasis on language mechanics, including spelling, punctuation, grammar, style, capitalization, abbreviation, word division and expression of numbers. Word processing software is used to achieve these goals. (SFCC)

BT 236 - Virtual Business Practice (5 cr)
This course prepares students to understand the foundations of working for a virtual business. Students identify resources, marketing strategies, and develop an online presence. Students will practice through simulations and online tools. Prerequisite: Permission of instructor. (SFCC)

BT 251 - Current Trends in Technology (5 cr)
This course provides an overview of office information systems for student entering administrative office careers. Students explore current technology used in offices today and how it impacts office workers. Topics include: microcomputer operation, software, hardware and storage; the Internet and Web 2.0 tools; privacy, security, and ethics; social media, and cloud computing. (SCC)

BT 255 - Business Productivity Tools (3 cr)
This course is designed to prepare students to use computerized business productivity tools to support the functions of management: planning, organizing, leading and controlling. Students will design, customize and implement a variety of business applications. (SFCC)

BT 258 - Desktop Publishing (5 cr)
This course is designed to prepare students to create desktop publishing documents for a typical office. Students will be able to design a variety of publications used in an office such as newsletters, letterheads, flyers, and brochures using the latest software. Students will apply design concepts and use appropriate media to present material. (SFCC)

BT 260 - Administrative Office Management (5 cr)
Students are presented with the fundamental principles of office organization and management as applied to business enterprises. Flow of work, routines, equipment and systems are studied. Prerequisite: SCC: Second year standing; SFCC: No prerequisite. (SCC, SFCC)

BT 263 - Integrated Office Applications (5 cr)
This project-based capstone course provides comprehensive coverage of Microsoft Office applications. Critical-thinking and problem-solving learning methods will be employed throughout the course. Prerequisite: BT 165, 204, and 205 or CATT 122. (SCC)

BT 266 - Cooperative Education Seminar (1-2 cr)
For course description, see Cooperative Education. (SCC, SFCC)

BT 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SCC)

BT 272 - Business Correspondence (5 cr)
Business students learn to write a variety of business messages demonstrating an understanding of strategic choices for specific audiences and purposes and the proficient use of grammar, punctuation, and mechanics. Prerequisite: SFCC only - BT 107 or ENGL& 101. (SCC, SFCC)

BT 273 - Business Research and Report Writing (5 cr)
Students learn to compose common types of business correspondence including the various types of letters, memos and reports. Prerequisite: BT 272 or 274. (SCC)

BT 274 - Business Writing for the Web (5 cr)
This course will build on students' knowledge of general business writing including appropriate choices in style, grammar, and mechanics. Students will adapt those skills for online modes and learn new strategies for reaching online audiences and accomplishing business purposes with those audiences. Students will explore the differences between various audiences and the use of text, images, sound, and visual design to accomplish business purposes effectively. (SCC)

BT 280 - Project Management for the Office (2.5-5 cr)
Students learn the key elements of project management. Students also conduct problem analysis, and develop action plans and cost/benefit analysis using project management software to assist in developing and managing their plans. Prerequisite: Second-year student. (SCC)

BT 285 - Administrative Professional Internship (2-3 cr)
Students apply their office and human relation skills during this two-week assignment at an area business. Internship sites are tailored to meet individual student needs to complement the student's program. Grading option: Pass/fail. (SCC, SFCC)

BT 288 - Cooperative Education Work Experience (No Seminar) (1-18 cr)
For course description, see Cooperative Education. (SCC)

BUSINESS, GENERAL

BUS 100 - Money Management (3 cr)
Students are introduced to managing all phases of family finances. Tips and techniques to help consumers survive on a limited budget are presented. Subjects include obtaining and using credit; saving money on food, financial services, automobiles, clothing, major appliances, insurance, travel, renting an apartment or buying a home. Students develop personal financial statements and budgets for future use. (SCC, SFCC)

BUS& 101 - Intro to Business (5 cr)
Students are introduced to the broad field of business and its organization, operation and management. Business opportunities, ownership, marketing, physical factors, human resources, finance, regulations and decision-making processes are emphasized. (SCC, SFCC)

BUS 102 - Math Skills for Business (3 cr)
Vocational number skills with or without the use of calculators are presented in the course. Rounding, decimals, fractions, percents, word problems and using special functions on a calculator are emphasized. Applications include commissions, discounts, invoices, checking accounts and interest. (SCC)

BUS 103 - Basic Business Math and Electronic Calculators (5 cr)
Students work with numbers and solve business problems using a 10-key pad including special features found on most modern business desk calculators and apply basic business math formulas. (SCC)

BUS 104 - Business Mathematics (5 cr)
Practical problems in the various fields of business including a review of fundamentals are emphasized in this course. Financial statements, buying and selling goods, simple and compound interest and discounts, annuities, sinking fund and amortization, consumer credit, and stocks and bonds are presented. Prerequisite: BUS 103. (SCC)

BUS 105 - Principles of Leadership (3 cr)
Students learn several theoretical approaches to leadership applicable within various organizational contexts including profit and nonprofit settings. Experiential learning, self-analysis instruments, role playing, case studies and related learning approaches are used to demonstrate the application of leadership principles. Selected skills and values associated with leadership success are taught. (SFCC)

BUS 106 - Applied Leadership (3 cr)
Study and analyze leadership techniques, experience problem solving alternatives, build skills through case studies and through practicing leadership techniques. (SFCC)

BUS 107 - Introduction to Electronic Calculators (1 cr)
Students learn to perform basic operations of an electronic calculator and develop a reasonable combination of speed and accuracy. (SCC)

BUS 110 - Basic Mathematics Review (1 cr)
Review of basic number skills. Topics include the arithmetic functions of addition, subtraction, multiplication and division of whole numbers, fractions, and decimals. Note: if you have passed BUS 122 or BUS 123 you may not take this course for credit. (SFCC)

BUS 111 - Percents and Simple Interest (1 cr)
Focuses on calculating with percentages and how to solve for simple interest and maturity values. Note: if you have passed BUS 122 or BUS 123 you may not take this course for credit. (SFCC)

BUS 112 - Payroll and Compound Interest (1 cr)
Introduces payroll calculations with employee pay deductions and employer responsibilities, and compound interest with present and future values. Note: If you have passed BUS 122 or BUS 123 you may not take this course for credit. (SFCC)

BUS 113 - Discounts, Markups and Markdowns (1 cr)
Calculate cash and trade discounts and solve for unknown variables regarding product markups and markdowns. Note: if you have already passed BUS 123 you may not take this course for credit. (SFCC)

BUS 114 - Solving for the Unknown and Business Math Review (1 cr)
How to approach and solve business scenarios and a comprehensive review of basic Business Math concepts. Note: if you have already passed BUS 123 you may not take this course for credit. (SFCC)

BUS 120 - International Business (5 cr)
Students investigate the importance of international business and trade within the U.S., the Pacific Northwest, and Washington State as a way of promoting economic growth and future job opportunities. International people management, international finance and accounting, and international legal and political considerations are emphasized. Other topics addressed are the effects of culture, politics, ethics and communication on international business practices, and overseas marketing and advertising, using an interdisciplinary and multicultural approach. International career options and business opportunities are discussed. (SCC)

BUS 122 - Practical Business Math (3 cr)
Utilize mathematical operations to solve practical business application problems. Core topics include review of basic addition, subtraction, multiplication, division, fractions and percents. Applications include bank reconciliation, simple interest and maturity values, compound interest, present and future values. (SFCC)

BUS 123 - Practical Business Math Applications (5 cr)
Utilize mathematical operations to solve practical business application problems. Core topics include review of basic addition, subtraction, multiplication, division, fractions and percents. Applications include bank reconciliation, simple interest and maturity values, compound interest, present and future values, the cost of installment buying, and the effects of paying off installment loans early versus on time and revolving charge credit cards. Additional topics covered are trade discounts, cash discounts, markups and markdowns, break even analysis, payroll calculations with employee pay deductions and employer responsibilities. (SFCC)

BUS 124 - Intermediate Business Math I (2 cr)
Gain exposure to simple depreciation, common inventory methods, and various financial reports. Calculate basic business statistics such as mean, median, mode, and standard deviation for the purpose of making sound business decisions. Prerequisite: BUS 122 or 123 or 125 or instructor permission. (SFCC)

BUS 125 - Consumer Math (3 cr)
Gain exposure to the cost of credit cards and the benefits of paying off early. Explore various types of mortgages and determine the pros and cons of each. Various types of taxes and insurance coverage will be explained and calculated. Reading and evaluating stocks, bonds, and mutual funds quotations complete this course. Prerequisite: BUS 122 or 123 or 124 or instructor permission. (SFCC)

BUS 140 - International Marketing (3 cr)
The problems of marketing in the international arena and how marketers approach and solve them are addressed in this course. Theory and practice of international marketing through the use of practical examples and actual case studies of international marketing organizations are emphasized. (SCC, SFCC)

BUS& 201 - Business Law (5 cr)
Students learn fundamental principles of law and the legal system and their application and operation in society. Analysis of business fact situations, isolating issues and recognizing the need for appropriate legal counsel, and the exercise of preciseness of language and action in matters with legal significance are emphasized. (SCC, SFCC)

BUS 204 - Introduction to Law (5 cr)
Students study today's legal environment including the various types of law, analysis of the different courts and judicial systems. Tort law, consumer law, domestic relations and estate planning are emphasized. How judges make decisions and what type of relief they may grant are presented. (SCC)

BUS 206 - Entrepreneurship and Business Plan Writing (10 cr)
The class gives students an understanding of business principles and how they fit together to assess the feasibility of a business concept and how to write an actionable business plan. Prerequisite: Completion of MMGT 205 with a 2.0 or higher or permission of instructor. (SCC)

BUS 217 - Business Statistics (5 cr)
The application and interpretation of statistics are presented in this course. Descriptive and inferential statistical methods that are most useful in marketing and business research studies are emphasized. Prerequisite: MATH 88, 97, 98, or 99 with a 2.0 or better within the last three years or appropriate placement scores. (SCC, SFCC)

BUS 218 - Marketing Research (2 cr)
A practical approach to applying the methods used in collecting and analyzing market information for managerial decision-making. Topics include research design, data collection, sampling, questionnaire design, qualitative research methods,processing and interpreting data, and presentation of findings. (SFCC)

BUS 280 - Human Relations in Business (5 cr)
The needs of the business or other formal work institutions and how they interact with individual needs are covered in this course. Leadership styles, formal organizational policies and procedures, and general cultural patterns to determine how humans act in a work environment are emphasized. The manager's role in creating an acceptable and satisfying organizational climate is covered. (SCC, SFCC)

BUS 284 - Special Business Topics (1-5 cr)
Students are provided a variety of pertinent, current business topics. Course content varies depending upon the number of credits and topics chosen. (SCC)

BUS 285 - Special Business Topics (1-5 cr)
Students are provided a variety of pertinent, current business topics. Course content varies depending upon the number of credits and topics chosen. (SCC)

BUS 286 - Special Business Topics (1-5 cr)
Students are provided a variety of pertinent, current business topics. Course content varies depending upon the number of credits and topics chosen. (SCC)

CAD DESIGN AND DRAFTING

CAD 101 - Introduction to Technology (3 cr)
This course is an overview of engineering careers, applying concepts and general elements of professionalism, strategies, and computer applications for the engineering office. Basic sketching skills, file management commands, computer terminology, data communication concepts, CAD principles and the practical application of relevant software packages are emphasized. (SCC)

CAD 109 - Introduction to Computer Aided Drafting (2-5 cr)
Students are introduced to the fundamentals of computer aided design (CAD) drafting. AutoCAD software using the principles of mechanical, architectural, civil and electrical/electronics is emphasized. (SCC)

CAD 111 - Applied Technical Math 1 (3 cr)
This course introduces theory and practical application of math concepts emphasizing the fundamentals of algebra. (SCC)

CAD 114 - Engineering Graphics/CAD 1 (5 cr)
This course introduces students to fundamental drafting and CAD practices with emphasis on industry drawing standards using manual drafting, sketching, 2D CAD and an introduction to 3D Solid Modeling. (SCC)

CAD 120 - Basic Blueprint Reading (2-3 cr)
This course introduces students to blueprint reading with emphasis on the interpretation of a variety of drafting styles. Students practice freehand sketching. (SCC)

CAD 121 - Applied Technical Math 2 (3 cr)
This course continues with the concepts introduced in CAD 111 to prepare students for advanced-level math. Basic and advanced algebra are reviewed, and an introduction to practical geometry and trigonometry also is presented. Prerequisite: CAD 111. (SCC)

CAD 122 - Applied Computer Aided Drafting (2-5 cr)
Students apply the fundamentals of computer aided design (CAD) drafting to produce industry quality drawings. AutoCAD software using the principles of mechanical, architectural, civil, metric and schematics is emphasized. Prerequisite: CAD 112. (SCC)

CAD 124 - Engineering Graphics/CAD 2 (5 cr)
This course is an extension of CAD 114 with emphasis on CAD drawing methods used in engineering. Dimensioning techniques, auxiliary views and sectioning methods also are emphasized. Prerequisite: CAD 114. (SCC)

CAD 125 - Introduction to Computer Aided Design (3-5 cr)
Students are introduced to the fundamentals of computer aided design (CAD). AutoCAD software as it applies to drawing in a format using the principles of mechanical, architectural, civil and electrical/electronics is emphasized. Prerequisite: ARCHT 112, CIS 105 or approved equivalent. (SCC)

CAD 130 - Introductory Applied Physics (3 cr)
Students are introduced to the basic concepts of our physical world. This course has minimal computational requirements, therefore little math background is required. (SCC)

CAD 132 - Introduction to Design (5 cr)
This course introduces the development of production-type working drawings. Drafting and CAD techniques used to create assembly and detail drawings in orthographic and pictorial formats are emphasized. Raw materials and general machine components also are introduced as well as the selection processes used in industry. Prerequisite: CAD 122, 124. (SCC)

CAD 133 - Introduction to Design (5 cr)
Introduction to the engineering design process, applying math, science, and engineering standards to hands-on projects. Individual and team design solutions using 3D modeling, problem solving, research, and documentation. Prerequisite: CAD 121, 124. (SCC)

CAD 134 - Applied Precision Measuring (1-3 cr)
Areas of emphasis in this course will include the terminology and use of measuring instruments for fabrication and machining, for layout work, and to determine compliance with dimensions and tolerances on engineering drawings. Covers the fundamental skills required to perform basic and precision dimensional measurements and an introduction to the concepts of Statistical Process Control (SPC). Gain proficiency in using rules, scales, tape measures, protractor, calipers, lasers, micrometers, dial gage, height gage and coordinate measuring machine. (SCC)

CAD 136 - Statics (5 cr)
Students study forced systems including vector force principles, forces and reactions at supports, force vector diagrams, coplanar force systems, stresses in truss systems and applied problems. Prerequisite: CAD 245. (SCC)

CAD 137 - Applied Technical Math and Physics (3 cr)
This course continues with the concepts introduced in CAD 111 and 121. Application problems in algebra, practical geometry and trigonometry are presented as well as introducing engineering math applications in statistics and vectors. Prerequisite: CAD 111. (SCC)

CAD 139 - Hydraulics/Pneumatics (3 cr)
Students are introduced to the application, uses and design of hydraulic and pneumatic components used in industry. Students learn the basic of circuit design. (SCC)

CAD 141 - Shop Practices (2 cr)
This course introduces safety practices in the shop. Students learn the basic operation techniques of the lathe, mill, drill press, and various hand and power tools used in a typical shop. Joining techniques such as welding, brazing, soldering and mechanical fasteners are included. (SCC)

CAD 142 - CAD Solid Modeling (3-5 cr)
This course offers advanced computer aided drafting techniques in three-dimensional solid modeling. Individual part files, assembly files, and application files in weldments and sheet metal are emphasized. Solid model prototype printing and CNC applications are also included. (SCC)

CAD 241 - CAD Solid Modeling/Graphics 1 (3-5 cr)
This course offers advanced computer aided drafting techniques in three-dimensional solid modeling. Individual part files, assembly files, shop drawings and application files are emphasized. Solid model prototype printing and CNC applications are also included. (SCC)

CAD 242 - Mechanical Design Fundamentals (5 cr)
This course is a comprehensive study of the design and drawing of machinery components including fasteners, springs, gears, belt drives, chain drives, couplings and bearings. Prerequisite: CAD 121,137, 142. (SCC)

CAD 243 - Building Systems Mechanical CAD Applications (3 cr)
This course introduces advanced concepts in CAD and applies these skills in introductory mechanical building systems for architectural, structural, and civil drafting and design projects. Students research and begin to explore the definition of this field as well as use CAD to create drafting projects and demonstrate the ability to present their projects in an engineering format. Prerequisite: CAD 124. (SCC)

CAD 244 - Structural CAD Applications (3-4 cr)
This course introduces advanced concepts and applies CAD skills in structural engineering drafting and design projects. Students research and develop a comprehensive definition of this field as well as use CAD to create drafting projects and demonstrate the ability to present their projects in an engineering format. Prerequisite: CAD 132. (SCC)

CAD 245 - Applied Physics (5 cr)
This course introduces basic concepts of our physical world. Application of physics laws using algebra, trigonometry and geometry is employed. A minimum math background equal to MATH 100 or CAD 123 is required to meet computational requirements. Prerequisite: CAD 123 or MATH 100. (SCC)

CAD 246 - Manufacturing Processes and Precision Measuring (2-3 cr)
This course is a comprehensive study of the processing of materials, industry standards and manufacturing techniques used in industry. It also incorporates the application of precision measuring tools for manufacturing, quality, and design considerations. (SCC)

CAD 247 - Shop Practices (2 cr)
This course introduces safety practices in the shop. Students learn the basic operation techniques of the lathe, mill, drill press, and various hand and power tools used in a typical shop. Joining techniques such as welding, brazing, soldering and mechanical fasteners are included. (SCC)

CAD 251 - Applied Tolerances and GD&T (3 cr)
This course introduces the use of geometric calculations and measuring instruments to determine true tolerances on detail drawings. Both linear tolerances and “Geometric Dimensioning and Tolerancing” formats are covered. Prerequisite: CAD 121, 124. (SCC)

CAD 252 - CAD Solid Modeling/Graphics 2 (4-5 cr)
This course presents advanced concepts and applications for computer assisted drafting systems in an engineering environment. Advanced drafting techniques are included with emphasis on three-dimensional solid modeling. Software/hardware customization techniques including menus, start-up, CAD programming fundamentals and management skills are also emphasized. Prerequisite: CAD 241. (SCC)

CAD 253 - Strength of Materials/Materials Science (5 cr)
Students study the strength of materials and the effects of stress. Types of stress and deformation, stress-strain diagrams, stress analysis and design problems are emphasized. Applied machine design, and structural and beam design projects are included. Study the characteristics of a variety of materials including specifications, tolerance, weight, and heat treating capabilities. Prerequisite: CAD 245. (SCC)

CAD 254 - Materials Science (2 cr)
This course is a comprehensive study of the characteristics of a variety of materials including their standards and specifications, tolerance, weight, and heat treating capabilities. Prerequisite: CET 245. (SCC)

CAD 255 - Technical Applications I (3-5 cr)
Students practice applied projects related to engineering technology that include interdepartmental projects, CAD design, shop skills and computer applications. This course may substitute cooperative education courses. Prerequisite: CAD 121, 124, 137, 141, 142. (SCC)

CAD 256 - Mechanical CAD Applications (3-4 cr)
This course introduces advanced concepts and applies CAD skills in mechanical engineering drafting and design projects. Students research and develop a comprehensive definition of this field as well as use CAD to create drafting projects and demonstrate the ability to present their projects in an engineering format. Prerequisite: CAD 132. (SCC)

CAD 258 - Schematic CAD Applications (4 cr)
This course introduces advanced concepts and applies CAD drafting skills in schematic engineering drafting and design projects. Students research and develop a comprehensive definition of this field as well as use CAD to create drafting projects and demonstrate the ability to present their projects in an engineering format. Prerequisite: CAD 132. (SCC)

CAD 260 - Fabrication and Piping CAD Applications (3 cr)
This course introduces advanced concepts and applies CAD drafting skills in sheet metal/HVAC fabrication drafting and piping drafting projects. Students research and develop a comprehensive definition of this field as well as use CAD to create drafting projects and then demonstrate the ability to present their projects in an engineering format. Prerequisite: CAD 132. (SCC)

CAD 261 - Project Design and Management (3-5 cr)
This advanced course is structured to correlate all technical disciplines covered in design and mathematics courses. Power transmission systems and power requirements, design techniques for specific mechanical systems, new product design and documentation are emphasized. Projects are managed with team involvement and planning software and then presented in a formal engineering report format. Prerequisite: CAD 124, 137, 241. (SCC)

CAD 262 - Electrical Theory for Engineering (5 cr)
This course introduces the concepts of basic electrical theory including alternating and direct current. Component identification and manufacturing processes of printed circuit boards, integrated circuits and wiring hardware are emphasized. Students learn to read and create electrical schematic diagrams and flow/logic charts. (SCC)

CAD 263 - Machine Controls (2 cr)
The course introduces machine control systems. Students identify and design electro-mechanical, electronic and hydraulic and pneumatic control systems. The function of programmable logic controllers and basic programming techniques are emphasized. (SCC)

CAD 264 - Technical Applications II (2-5 cr)
The course continues with the applications offered in CAD 255 with emphasis on special projects related to manufacturing practices and shop personnel interactions. Prerequisite: CAD 255. (SCC)

CAD 265 - Manufacturing and Measuring Systems (2-3 cr)
Areas of emphasis in this course will include the terminology and use of manufacturing systems, measuring instruments for fabrication and machining, for layout work, and to determine compliance with dimensions and tolerances on engineering drawings and an introduction to the concepts of Statistical Process Control (SPC). Gain proficiency in using precision measuring tools and coordinate measuring machines. (SCC)

CAD 266 - Cooperative Education Seminar (1-2 cr)
For course description, see Cooperative Education. (SCC)

CAD 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SCC)

CAD 268 - Schematics/Advanced CAD (3 cr)
This course introduces basic CAD Schematic Drafting for electronics, industrial electricity, and hydraulic/pneumatic systems. The course includes advanced functions of CAD and Solid Modeling applications. Prerequisite: CAD 124,142. (SCC)

CAD 269 - Civil CAD Applications (3-4 cr)
This course introduces advanced concepts and applies CAD drafting skills in civil engineering drafting and design projects. Students research and develop a comprehensive definition of this field as well as use CAD to create drafting projects and then demonstrate the ability to present their projects in an engineering format. Prerequisite: CAD 132. (SCC)

CAD 288 - Cooperative Education Work Experience (No Seminar) (1 cr)
For course description, see Cooperative Education. (SCC)

CHEMISTRY

CHEM& 110 - Chemical Concepts w/Lab (5 cr)
A survey course of basic concepts in chemistry with emphasis on the application of these topics in society. Topics covered may include philosophy and methods of science, arithmetic calculations, the metric system, unit conversions, atomic theory, chemical bonding, types of chemical reactions, gases, nuclear chemistry and current chemical issues such as ozone layer depletion, energy and society, acid rain, polymers, or foods and drugs among others. Recommended for non-science and liberal arts majors. Fulfills laboratory science requirement for AA degree. (SCC, SFCC)

CHEM 114 - Introduction to Chemistry-Online (5 cr)
Introduction to chemistry is a non-lab, entry-level chemistry class with a modest prerequisite of elementary algebra. This course is taught online via the Internet and is aimed at students who have no prior chemistry experience. Students gradually learn content and develop skills needed to succeed in a laboratory science and advance to the next level of chemistry curriculum. DOES NOT SATISFY ANY AA DEGREE REQUIREMENTS AND IS NOT TRANSFERRABLE. Prerequisite: Working knowledge of basic algebra. (SCC)

CHEM 115 - Environmental Chemistry w/Lab (5 cr)
This introductory course explores a wide range of topics for nonscience majors. Topics include ozone and SMOG chemistry, airborne particulates and acid rain, the greenhouse effect and ozone layer, structure and chemistry of freshwater bodies, environmental impact of metals and organic pollutants, water soil contaminants and their persistence of contaminants, and soil degradation and chemical assessment of contaminants soils. Soil and water remediation, and energy utilization and conservation are emphasized. Fulfills laboratory science requirements for AA degree. (SCC)

CHEM& 121 - Intro to Chemistry: w/Lab (5 cr)
A survey of inorganic chemistry for nursing and allied health sciences. Includes atomic structure, bonding periodicity, stoichiometry, gases, equilibrium, solution chemistry and nuclear chemistry. Fulfills laboratory science requirement for AA degree. (SCC, SFCC)

CHEM& 122 - Intro to Organic Chem: w/Lab (5 cr)
A survey or organic chemistry including structure, function and chemistry of aliphatic and aromatic hydrocarbons, alcohols, ethers, carboxylic acids, amines and related compounds; mechanisms, and stereochemistry. Fulfills laboratory science requirement for AA degree. Prerequisite: CHEM& 121 or permission of instructor. (SCC, SFCC)

CHEM& 123 - Intro to Biochemistry: w/Lab (5 cr)
A brief survey of biochemical principles, including structures of biomolecules, enzymatic catalysis, thermodynamics, metabolic pathways, genetic expression and biotechnology. Fulfills laboratory science requirement for AA degree. Prerequisite: CHEM& 122 or permission of instructor. (SCC, SFCC)

CHEM& 140 - General Chem Prep with Lab (5 cr)
A survey course of basic topics in chemistry, which may include philosophy and methods of science, arithmetic calculations, the metric system, unit conversions, atomic theory, chemical bonding, types of reactions, stoichiometry, gases, solutions, acid-base chemistry, nuclear chemistry, kinetic molecular theory, equilibrium and redox. Recommended for students who plan to take CHEM& 161 but have not had High School chemistry or for students that want to fulfill laboratory science requirement for AA degree. (SFCC)

CHEM& 161 - General Chem: w/Lab I (5 cr)
This series offers rigorous instruction in general chemistry. Topics include measurements, atomic structure, ionic and molecular compounds, aqueous solutions and molarity, chemical reactions, stoichiometry, gases, quantum theory and electronic structure, periodicity, chemical bonding, molecular geometry, solid and liquid states, solutions, chemical kinetics, chemical equilibrium, acids and bases, solubility equilibriums, thermo chemistry and chemical thermodynamics, and electrochemistry. Other topics selected at the discretion of the instructor include nuclear chemistry, coordination chemistry, environmental chemistry, organic and biochemistry, modern materials, etc. Lab involves both qualitative and quantitative aspects of chemistry with necessary accuracy for such work. Note: the topics in this three-quarter sequence may be presented in various orders depending on the institution and the text used. Students are strongly encouraged to complete all three courses at the same institution to help ensure coverage of the full range of important topics in general chemistry. Prerequisite: Currently enrolled in or have taken: MATH& 141 or higher level math courses, or permission of instructor. (SCC, SFCC)

CHEM& 162 - General Chem w/ Lab II (5 cr)
This series offers rigorous instruction in general chemistry. Topics include measurements, atomic structure, ionic and molecular compounds, aqueous solutions and molarity, chemical reactions, stoichiometry, gases, quantum theory and electronic structure, periodicity, chemical bonding, molecular geometry, solid and liquid states, solutions, chemical kinetics, chemical equilibrium, acids and bases, solubility equilibriums, thermo chemistry and chemical thermodynamics, and electrochemistry. Other topics selected at the discretion of the instructor include nuclear chemistry, coordination chemistry, environmental chemistry, organic and biochemistry, modern materials, etc. Lab involves both qualitative and quantitative aspects of chemistry with necessary accuracy for such work. Note: the topics in this three-quarter sequence may be presented in various orders depending on the institution and the text used. Students are strongly encouraged to complete all three courses at the same institution to help ensure coverage of the full range of important topics in general chemistry. Prerequisite: CHEM& 161 or permission of instructor. (SCC, SFCC)

CHEM& 163 - General Chem w/ Lab III (5 cr)
This series offers rigorous instruction in general chemistry. Topics include measurements, atomic structure, ionic and molecular compounds, aqueous solutions and molarity, chemical reactions, stoichiometry, gases, quantum theory and electronic structure, periodicity, chemical bonding, molecular geometry, solid and liquid states, solutions, chemical kinetics, chemical equilibrium, acids and bases, solubility equilibriums, thermo chemistry and chemical thermodynamics, and electrochemistry. Other topics selected at the discretion of the instructor include nuclear chemistry, coordination chemistry, environmental chemistry, organic and biochemistry, modern materials, etc. Lab involves both qualitative and quantitative aspects of chemistry with necessary accuracy for such work. Note: the topics in this three-quarter sequence may be presented in various orders depending on the institution and the text used. Students are strongly encouraged to complete all three courses at the same institution to help ensure coverage of the full range of important topics in general chemistry. Prerequisite: CHEM& 162 or permission of instructor. (SCC, SFCC)

CHEM& 241 - Organic Chem I (3 cr)
This course covers structure, bonding, molecular properties, an overview of organic reactions, and stereochemistry, with emphasis on the nomenclature, physical properties, chemical reactivity mechanisms and chemical reactions of the following organic families: alkanes, cycloalkanes, alkenes, alkynes and alkylhalides. Prerequisite: CHEM& 163 or equivalent and concurrent enrollment in CHEM& 241, CHEM& 251. (SCC, SFCC)

CHEM& 242 - Organic Chem II (3 cr)
This course is a continuation of CHEM& 241 in which the study of organic families continues with aromatic compounds (benzene), alcohols, thiols, ethers, epoxides, sulfides, aldehydes and ketones. Spectroscopy (IR, UV, NMR, MS) also are discussed. Prerequisite: CHEM& 241, CHEM& 251 and concurrent enrollment in CHEM& 252. (SCC, SFCC)

CHEM& 243 - Organic Chem III (3 cr)
This course is a continuation of CHEM& 242 and focuses on the properties and chemical reactivity, mechanisms, nomenclature and spectroscopy of the rest of the organic families which include carboxylic acids and derivatives (acid halides, acid anhydrides, esters, amides, and nitriles), carbonyl alpha-substitution reactions, carbonyl condensation reactions, aliphatic amines, arylamines and phenols. Optional subjects are biomolecules (carbohydrates, amino acids, proteins, lipids, heterocycles and nucleic acids). Prerequisite: CHEM& 242, CHEM& 252 and concurrent enrollment in CHEM& 253. (SCC, SFCC)

CHEM& 251 - Organic Chem Lab I (2 cr)
This course involves experiments that demonstrate the techniques used in organic synthesis, isolation and purification of organic compounds. These techniques include recrystallization, extraction, chromatographic techniques, distillation techniques, sublimation, melting point determination and reflux. Prerequisite: Concurrent enrollment in CHEM& 241. (SCC, SFCC)

CHEM& 252 - Organic Chem Lab II (2 cr)
This course uses experiments to support lecture in the mechanistic approach of chemical synthesis and instrumentation. Prerequisite: CHEM& 241, CHEM& 251 and concurrent enrollment in CHEM& 242. (SCC, SFCC)

CHEM& 253 - Organic Chem Lab III (2 cr)
This course supports the concepts and mechanisms discussed in CHEM& 243 with organic synthesis experiments. Prerequisite: CHEM& 242, CHEM& 252 and concurrent enrollment in CHEM& 243. (SCC, SFCC)

CHEM 260 - Biochemistry (5 cr)
Course covering modern biochemistry that emphasizes a broad understanding of chemical events in living systems in terms of metabolism and structure-function relationships. Suitable for pre-major students that are interested in health-related careers such as medicine, dentistry, pharmacy, and medical technology. Prerequisite: CHEM& 242. (SFCC, SCC)

CHINESE

CHIN& 121 - Chinese I (5 cr)
Students are introduced to the Chinese language and the current use of simplified characters. Official Mandarin Chinese is used for beginners using Pinyin (Chinese sound system). This course maintains regional standards for competency and vocabulary. Language lab is required. (SFCC, SCC)

CHIN& 122 - Chinese II (5 cr)
Students continue with the concepts introduced in CHIN& 121 to learn the Chinese language and current use of simplified characters. Official Mandarin Chinese is used for beginners using Pinyin (Chinese sound system). This course maintains regional standards for competency and vocabulary. Language lab is required. Prerequisite: CHIN& 121 or permission of instructor. (SFCC, SCC)

CHIN& 123 - Chinese III (5 cr)
Students continue with the concepts introduced in CHIN& 122 to learn the Chinese language and current use of simplified characters. Official Mandarin Chinese is used for beginners using Pinyin (Chinese sound system). This course maintains regional standards for competency and vocabulary. Language lab is required. Prerequisite: CHIN& 122 or permission of instructor. (SFCC, SCC)

COMMUNICATION STUDIES

CMST& 101 - Introduction to Communication (5 cr)
This course surveys the field of communication. It teaches students the theories and skills associated with effective interpersonal, small group, and public communication. Emphasis is on in-class activities and on improving the student's confidence in a variety of communication settings. (SCC, SFCC)

CMST 103 - Effective Listening (3 cr)
Most people assume they are effective listeners; however, according to listening expert Dr. Ralph Nichols, college students test at about 25 percent accuracy in their listening skills. This course is designed to help students assess their listening and learning styles and to develop those skills necessary for success in college and in the job market. (SCC)

CMST 111 - Voice and Articulation I (4 cr)
Students learn to speak and interact in small group settings. Class discussions on a variety of cultural, social and technical topics, and one-on-one assistance in pronunciation/articulation are emphasized. Presentational skills also are included. Prerequisite: Permission of instructor. (SCC)

CMST 112 - Voice and Articulation II (4 cr)
ESL students continue the concepts learned in CMST 111 by speaking and interacting in small group settings. Class discussions on a variety of cultural, social and technical topics, and one-on-one assistance in pronunciation/articulation with a speech clinician are emphasized. Presentational skills also are included. Prerequisite: CMST 111 or permission of instructor. (SCC)

CMST 113 - Voice and Articulation III (4 cr)
ESL students continue the concepts learned in CMST 111 by speaking and interacting in small group settings. Class discussions on a variety of cultural, social and technical topics, and one-on-one assistance in pronunciation/articulation with a speech clinician are emphasized. Presentational skills also are included. Prerequisite: CMST 112 or permission of instructor. (SCC)

CMST 120 - Communication For College Success (3-5 cr)
Many students come to Spokane Community College lacking the communication skills needed for competent and professional interaction with those they encounter while pursuing their advanced education. This course is designed to provide the necessary communication tools needed by students who are new and/or returning to the college setting by identifying important communication principles that are relevant to academic success. (SCC)

CMST 121 - Job Communication Skills (2-5 cr)
This course is designed to meet the needs of specific professional/technical students with emphasis on attitudes, work ethics, resumes and job interviewing skills. (SCC, SFCC)

CMST 127 - Leadership Development (3-5 cr)
Emphasizes integrity and professionalism in the workplace, team-building problem-solving, presentational skills, and selling techniques for success on the job. Variable credits. (SCC)

CMST& 210 - Interpersonal Communication (5 cr)
This course provides an opportunity to learn and apply the theory of interpersonal communication. Learning experiences include work with personal growth, verbal and nonverbal communication skills, active listening, stress management, and resolving communication conflicts to develop healthy personal relationships. (SCC, SFCC)

CMST& 220 - Public Speaking (5 cr)
This course teaches students fundamental principles of researching, writing and delivering an effective public address. Students learn audience adaptation and receive at least 11 hours of instruction in the development and composition of formal preparation outlines for expository, persuasive and motivational speeches. Students study and practice a variety of rhetorical techniques suitable for crafting clear, memorable and persuasive prose. They gain confidence as speakers through the study and practice of a wide variety of proven delivery techniques and styles. (SCC, SFCC)

CMST 226 - Gender Communication (5 cr)
This course provides the opportunity to learn and apply theories of gender communication. Learning experiences include work with both verbal and nonverbal communications as they apply to perception, stereotyping, brain and other biological differences, gender and socialization, processing information, differences in communication style, gender communication in friendships, and gender communication in the workplace. (SCC, SFCC)

CMST 227 - Intercultural Communication (5 cr)
This course is a culture-general approach to intercultural communication. Emphasis is on experiential learning in order to understand and improve intercultural communication at both the domestic and international levels. Students have the opportunity to improve verbal and nonverbal communication skills with different cultures in the community, and to focus on international communication needs. (SCC, SFCC)

CMST 229 - Argumentation and Debate (5 cr)
Argumentation and Debate teaches students the theory and practices associated with analyzing, constructing, and delivering arguments -- in writing and orally -- on topics of controversy. Students develop skills in case construction, using evidence in support of argument, responding to arguments and questions, and effective delivery of arguments to critical audiences. (SCC, SFCC)

CMST& 230 - Small Group Communication (5 cr)
Practical application of problem-solving skills, discussion techniques, task and social roles including leadership are explored. Focus will be on communication behavior in small task-oriented groups. (SCC)

CMST 250 - Managing Conflict Through Communication (5 cr)
Understanding conflict is a critical step in the process of managing it. This course emphasizes both theory and practical application to help students manage conflict by utilizing communication skills. (SCC)

CMST 280 - Public Relations (5 cr)
An introduction to the basic principles of public relations. Areas of interest will include research, ethics and theory, media, and campaign strategy. Prerequisite: College level reading and writing skills. CMST& 101. (SCC)

CMST 287 - Business and Professional Communication (3-5 cr)
This course is designed to focus on how interaction skills affect the individual's and the organization's success. Students learn to maintain employment and to benefit the organization through effective communication skills with managers, co-workers and customers. Some topics covered include organizational communication theory and history, culture, working in teams, presenting at work, conflict management and listening skills. Prerequisite: Second-year student or permission of instructor. (SCC)

CMST 294 - Special Topics in Speech Communication (3-5 cr)
A communication course with content and scope varying from quarter to quarter according to designation and credits filed in advance of each quarter. (SCC, SFCC)

CMST 320 - Professional Communication (5 cr)
This course examines and applies communication theory, principles, and skills in career development and management. Professional Communication covers visual presentation skills, interviewing, listening, portfolio building, and employment and promotion negotiation. Emphasis will be placed on the effective application of these skills to communicate both orally and visually for a range of professional positions. Prerequisite: Applied BAS degree students only. (SFCC)

CMST 430 - Organizational Communication (5 cr)
This course is the study of communication and its practice, effects and improvement in collective organizations; the role of communication in organizational assessment and change; the relationship between communication and leadership practices and organizational effectiveness, and the discursive nature of personal and corporate image and credibility. Prerequisite: Applied BAS degree students only. (SFCC)

COMPUTER APPLICATION TECHNOLOGY TRAINING

CATT 102 - Introduction to Outlook (2.5 cr)
Using Outlook, students learn to communicate through e-mail, maintain electronic calendars, schedule meetings, use contacts, customize menus and taskbars, send/receive faxes, and import/export data among applications. (SCC)

CATT 120 - Microsoft Word I (1-2.5 cr)
Students learn and apply basic functions of Microsoft Word to create, print and edit documents such as letters, tables, memos, reports, labels and envelopes; format characters and paragraphs; insert section and page breaks; add bullets and numbers to lists; and use Word's writing tools. The skills required for the core level of the Microsoft Word MOUS (Microsoft Office User Specialist) certification examination are presented in CATT 120 and 121. (SCC)

CATT 121 - Microsoft Word II (1-2.5 cr)
This course is a continuation of CATT 120. Students learn and apply functions of Microsoft word to add headers, footers and page numbers to documents; create and modify column structure; use Wizard and templates to create new documents; create and modify tables by adding borders and changing table structure; enhance documents with pictures and charts; and manage files. (SCC)

CATT 122 - Microsoft Access I (1-3 cr)
This course presents theory and application in the basic concepts and terminology of relational database management. Students plan and design databases in addition to building and modifying tables and forms. The skills required for the Microsoft Access MOUS (Microsoft Office User Specialist) certification examination are presented in CATT 122 and 123. (SCC)

CATT 123 - Microsoft Access II (1-2.5 cr)
Students learn and apply functions of Microsoft Access to view and organize information, define relationships, produce reports and integrate with other applications. (SCC)

CATT 128 - Desktop Publishing (5 cr)
This introductory course is designed for students with little or no background in desktop publishing. Emphasis is placed on basic concepts and terminology common to popular desktop publishing software. Basic DOS functions used in desktop publishing are introduced. (SCC)

CATT 138 - Microsoft Excel I (1-2.5 cr)
This course presents the basic functions of Microsoft Excel required to create, modify, format and print spreadsheets. The skills required for the core level of the Microsoft Excel MOUS (Microsoft Office User Specialist) certification examination are presented in CATT 138 and 139. (SCC)

CATT 139 - Microsoft Excel II (2.5 cr)
This course is a continuation of CATT 138. Students learn to work with worksheets and workbooks, formulas and functions, and to use charts and objects. (SCC)

CATT 190 - Introduction to PowerPoint (1-2.5 cr)
Students learn and apply the fundamentals of Microsoft PowerPoint to create and modify presentations; and use design templates, the Office Clipboard, Format Painter and Word Art in addition to the drawing tools. Skills required for the PowerPoint MOUS (Microsoft Office User Specialist) certification examination are presented. (SCC)

CATT 191 - Advanced PowerPoint (2.5 cr)
Students learn and apply advanced features of Microsoft PowerPoint to modify and create presentations by customizing the color schemes, adding charts and graphs, building and modifying organization charts importing Word and Excel documents, adding links to presentations, and adding animation. (SCC)

CATT 220 - Advanced Microsoft Word I (2.5 cr)
This course is a continuation of CATT 121. Students learn and apply advanced functions of Microsoft Word to create and edit document styles, work with master documents and subdocuments, create and modify a table of contents or index, use tables with embedded worksheets, sort lists, and create and revise footnotes and endnotes. (SCC)

CATT 221 - Advanced Microsoft Word II (2.5 cr)
This is the final course in a series covering Microsoft Word and is a continuation of CATT 220. Students learn and apply advanced functions of Microsoft Word to sort and create merged documents such as letters, envelopes and labels; to create, apply, copy, rename and edit macros; to create and modify forms; and to collaborate with work groups through comments, multiple versions and tracking of documents. (SCC)

CATT 222 - Advanced Microsoft Access I (2.5 cr)
This course presents advanced Microsoft Access functions including building, modifying tables and forms, and refining queries. (SCC)

CATT 223 - Advanced Microsoft Access II (2.5 cr)
This course is a continuation of CATT 222 and presents advanced Microsoft Access functions with an emphasis on utilizing web capabilities, producing reports, using Access tools and integrating data. (SCC)

CATT 238 - Advanced Microsoft Excel I (2.5 cr)
This course covers advanced concepts for using Microsoft Excel. Students use templates and multiple workbooks; work with toolbars; and record, run and edit macros. (SCC)

CATT 239 - Advanced Microsoft Excel II (2.5 cr)
This course is a continuation of CATT 238. Students record, run and edit macros; extract data and apply data filters; use analysis tools; and learn how to collaborate in workgroups. (SCC)

CATT 241 - Microsoft Project (2.5 cr)
Students develop skills using computer software to plan, execute, control and close a project in order to meet the project's goal. Students use MS Project as a central database to organize all project information. This course focuses on determining tasks and resources, creating project schedules, using Gantt charts and network diagrams to monitor projects, and generating project reports. Prerequisite: CIS 110 or equivalent experience is recommended. (SCC)

CATT 242 - Advanced Microsoft Project (2.5 cr)
Using MS Project, students will continue to develop and enhance the skills they learned in CATT 241. Students will use MS Project to track progress, develop reports, integrate Project information with other MS office software, create and use templates and use a master project. In addition, a major emphasis of this class is on the practical application of MS Project through the use of case studies or projects chosen by the students. Prerequisite: Previous or concurrent enrollment in CATT 241 is required. (SCC)

COMPUTER INFORMATION SYSTEMS

CIS 103 - Mobile Devices (5 cr)
This course introduces students to basic computer concepts and practical application of relevant software as required in the health care system. (SCC)

CIS 104 - Mobile Device Management (5 cr)
This course introduces students to basic mobile device management. Prerequisite: CIS 103 or permission of instructor. (SCC)

CIS 105 - Computer Fundamentals for Vocations I (1-5 cr)
This course introduces students to basic computer concepts and practical application of relevant application software. Course content may vary depending on individual vocational programs needs. (SCC)

CIS 106 - Network Math (2 cr)
This course covers math concepts for Network Design and Administration Students, and covers objectives such as IP addressing, subnetting, number system conversion, and systematic troubleshooting using network models. Prerequisite: MATH 91 with a 2.0 or better within the last three years; or appropriate placement score and concurrently enrolled in CIS 108. (SCC)

CIS 107 - Software Math (2 cr)
This course covers math concepts for Software Development Students, and covers objectives such as floating point math, assignment operations vs. equations, computer precedence, Boolean logic, and math related computer programming concepts. Prerequisite: MATH 91 with a 2.0 or better within the last three years; or appropriate placement score and concurrently enrolled in CIS 108. (SCC)

CIS 108 - Computer Math (3 cr)
Previously known as MATH 104. This course consists of general computer math concepts for all CIS AAS students. Students then continue with either math targeted to specific Network Design and Administration objectives or specific Software Development objectives. Prerequisite: Concurrent enrollment in CIS 106 or CIS 107. (SCC)

CIS 110 - Introduction to Computer Applications (5 cr)
The basic principles of computers and business application software including word processing, spreadsheets and database software are introduced in this course. The in-depth study of basic commands and concepts, and the applications of a variety of commercial software are emphasized. (SCC)

CIS 111 - HTML5/CSS I (5 cr)
This course introduces basic concepts of the HyperText Markup Language (HTML) and Cascading Style Sheets (CSS). Students learn the technology required to develop and maintain static web sites. (SCC)

CIS 112 - Web Graphics with Photoshop (3 cr)
This course provides an in-depth exploration of how to plan, design and execute visually appropriate images using Adobe Photoshop. Masks, text, effects, and general photo composition are utilized to create posters, 3-d images, and images which can eventually be utilized in website design and construction. (SCC)

CIS 114 - JavaScript/jQuery (5 cr)
This course teaches the fundamentals of the JavaScript language and how to create sophisticated and interactive web pages through client-side scripting using jQuery libraries. Prerequisite: CIS 130 and (256 or 282) each with a passing grade of 2.0 or better or permission of instructor. (SCC)

CIS 126 - DBMS/SQL (5 cr)
This course introduces ANSI SQL. Students learn the uses of SQL scripting as it pertains to common database management systems such as MySQL, Oracle, SQL Server or DB2. Students acquire the ability to create, modify and delete data and data structures. Students also learn to implement SQL using web technologies. Prerequisite: CIS 146 with a passing grade of 2.0 or better or permission of instructor. (SCC)

CIS 127 - SQL Server and Transact-SQL (5 cr)
Students learn to design and implement a SQL Server database. Once the relational database is developed, students program web applications using stored procedures created with Transact-SQL. Prerequisite: CIS 126 or permission of instructor. (SCC)

CIS 130 - HTML5/CSS II (5 cr)
Students are introduced to the techniques, processes and terminologies for designing a static web site from the first concept to the finished web site. Planning aspects and basic elements necessary to publish a successful site are emphasized. Cascading Style Sheets (CSS) are heavily emphasized. Prerequisite: CIS 111 with a passing grade of 2.0 or better; CIS 112 recommended; or permission of instructor. (SCC)

CIS 138 - Home Networking (2.5 cr)
This course introduces the basic terminology, concepts and architecture of computer home networking. (SCC)

CIS 139 - Small Office Home Office Computer Basics (2.5 cr)
This course prepares students for basic set-up, maintenance, and troubleshooting of Small Office/Home Office computers and associated devices. (SCC)

CIS 146 - Introduction to Programming/VB (5 cr)
Students will explore basic programming concepts using Microsoft Visual Basic. Concepts include object-oriented principles and implementation, structured programming principles (data types, variables, loops, selection structures) and debugging techniques are utilized by students to solve beginning-level computer application problems. The understanding and mastery of the terms, concepts, and theories of today's information technology programmers/analysts are the main objectives of this course. (SCC)

CIS 147 - Emerging Technologies 1 (1-5 cr)
Students research and evaluate emerging technologies. In addition, students make presentations about the features and uses of web technology to both the class and the entire software development program. This class hones writing, development and presentation skills both as an individual and in team settings. Course content varies depending upon the number of credits and topics chosen. Prerequisite: CIS 146 with a passing grade of 2.0 or better or permission of instructor. (SCC)

CIS 149 - Networking for Developers (5 cr)
This course presents computer networking principles specific to the needs of the software developer. Students learn standard networking terms, protocols, and tools for a general overview of networking from the development perspective. Content will include, but is not limited to, the following: Web Protocols such as FTP, NNTP, HTTP, HTTPS, SSH, POP3, SMTP, and Telnet; Web application and site deployment techniques, remote monitoring and review of web access and error log files, simple debugging of networking problems, and wireless home security and port forwarding. Prerequisite: CIS 130,146 with a passing grade of 2.0 or better or permission of instructor. (SCC)

CIS 154 - Beginning Flash Development (5 cr)
This course introduces students to the methods and techniques used in the development of multimedia materials and presentations using Adobe Flash. Specific emphasis is placed on creating graphic elements as a means of visual communication. Focus is placed on conceptualization and sequencing, analysis of animated graphics, the technology of computer-aided animation, application of visual theory, and organization to principles of animation. Prerequisite: CIS 112 with a passing grade of 2.0 or better or permission of instructor. (SCC)

CIS 201 - IT Essentials - A+ (5 cr)
This course maps to objectives for A+ Certification by introducing basic to advanced concepts in PC hardware, software, and troubleshooting. Basic concepts in networking, security, mobile devices, peripherals, and professionalism are also introduced. (SCC)

CIS 205 - Windows Client OS (5 cr)
Students learn skills to install, configure and upgrade, diagnose and repair systems. Major features of the Windows operating system and its components, troubleshooting techniques and maintaining systems are emphasized. (SCC)

CIS 206 - Introduction to Linux/Unix (5 cr)
This course introduces the LINUX/UNIX operating system. Students learn to configure the latest version and set up the graphical interface with the X Window System. Many tips and techniques for specific uses of LINUX/UNIX, such as installing and configuring applications are presented. (SCC)

CIS 213 - Advanced Linux/Unix (5 cr)
Students with experience in LINUX/UNIX servers use skills to administer LINUX/UNIX systems in a network environment. They maintain LINX/UNIX systems, configure and troubleshoot the Network File System (NFS), and configure a Network Information Service (NIS) environment. Prerequisite: CIS 206, 250. (SCC)

CIS 217 - Mobile Development I (5 cr)
This course presents the standards of creating Mobile Websites with the use of HTML5, CSS3, and jQuery. It will teach how to utilize standard responsive website design to create single websites that can be utilized with a wide variety of mobile devices, tablets, laptops, and desktop computers with varying screen sizes. Prerequisite: CIS 114, 256 and 283 with a passing grade of 2.0 or better or permission of instructor. (SCC)

CIS 218 - Mobile Development II (5 cr)
This course presents the standards of creating Mobile Websites through the use of either Android Operating System Development and the Java Language or iPhone/iPad through the Objective-C language. Prerequisite: CIS 217, 230, 284 with a passing grade of 2.0 or better or permission of the instructor. CIS 258 with a passing grade of 2.0 or better or concurrent enrollment. (SCC)

CIS 219 - Mobile Development III (5 cr)
This course presents advanced concepts of creating Mobile Websites through the use of either Android Operating System Development and the Java Language or iPhone/iPad through the Objective-C language. In addition, the building of mobile application aware websites through standard Application Programming Interfaces (API) will be presented. Prerequisite: CIS 218 with a passing grade of 2.0 or better or permission of the instructor. (SCC)

CIS 221 - Mobile IV-IOS 1 (5 cr)
This course presents the standards of creating Mobile Applications through the use of Advanced Apple iOS Development and the Swift programming language. Prerequisite: CIS 217 or permission of the instructor. (SCC)

CIS 222 - Mobile V-IOS 2 (2 cr)
This course presents the standards of creating Mobile Applications through the use of Apple iOS Development and the Swift programming language. Prerequisite: CIS 221 or permission of the instructor. (SCC)

CIS 230 - PHP Programming (5 cr)
Students learn to create powerful, interactive, database-driven web sites. How PHP scripting language interacts with forms is discussed. Students also learn to generate dynamic pages, and data representation is introduced using MySQL database tables. Prerequisite: CIS 114, 126 with a passing grade of 2.0 or better or permission of instructor. (SCC)

CIS 234 - Network Scripting (3 cr)
Students write scripts utilizing Microsoft Visual Basic Scripting Edition (VBScript), Windows Script Host (WSH) and UNIX/LINUX shell scripting languages to manage Windows and Unix/LINUX based systems. Prerequisite: CIS 206, 244. (SCC)

CIS 236 - Windows Server Administration (5 cr)
This course explores Windows Server Administration and covers topics for Microsoft certification exams. The course focuses on installing and configuring network services in a Windows Server environment. Prerequisite: CIS 244. (SCC)

CIS 239 - Software Project Management (2.5 cr)
Examines project management theory and practices from a managerial perspective. Students define a software project, create project objectives, determine resource requirements and create a project plan and schedule. Students will implement the concepts, tools and skills developed in this course while they successfully complete a software project. Prerequisite: CIS 130, 146, ENGL& 101 with a passing grade of 2.0 or better, or permission of instructor. (SCC)

CIS 244 - Windows Server Installation and Configuration (5 cr)
This course introduces managing, maintaining and troubleshooting devices, users, groups, and resource access in a Windows Server environment. Prerequisite: CIS 201. (SCC)

CIS 247 - Virtualization Technologies (5 cr)
This course is designed to provide students with a working knowledge of leading virtualization technologies. Students will learn how to apply virtualization technology to set up virtual servers and clients, configure virtual networks and device, deploy virtual applications and manage virtual machine resources. Prerequisite: CIS 201. (SCC)

CIS 250 - Cisco I Introduction to Networks (5 cr)
This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. Topics include network terminology, media, protocols, equipment, OSI and TCP models, basic router and switch configuration, Ethernet concepts and IP addressing. (SCC)

CIS 251 - Cisco II Routing and Switching Essentials (5 cr)
Students are provided with hands-on experience configuring and troubleshooting routers and switches in a network. Topics include static and dynamic routing protocols, virtual LANS and inter-VLAN routing, and routing in IPv4 and IPv6 networks. Prerequisite: CIS 250 with a passing grade of 2.0 or better, or instructor permission. (SCC)

CIS 252 - Cisco III Scaling Networks (5 cr)
Students learn to configure and troubleshoot routers and switches for advanced functionality. Students learn to resolve common issues with OSPF, EIGRP, and STP in both IPv4 and IPv6 networks, and how to implement a WLAN in a small to medium network. Prerequisite: CIS 250 with passing grade of 2.0 or better or instructor permission. (SCC)

CIS 253 - Cisco IV Connecting Networks (5 cr)
Students learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. Students also develop the knowledge and skills needed to implement IPSec and virtual private network (VPN) operations in a complex network. Prerequisite: CIS 250, 251, 252 with a passing grade of 2.0 or better or instructor permission. (SCC)

CIS 256 - C# (5 cr)
Students use the object-oriented, event-driven .NET platform to learn programming concepts in this course. Students plan and create interactive Windows applications. Students also learn to write selection and repetition statements as well as create and manipulate sequential access files, random access files and arrays. Graphical User Interface (GUI) design skills are emphasized throughout this course. Prerequisite: CIS 146 with a passing grade of 2.0 or better or permission of instructor. (SCC)

CIS 258 - ASP.NET (5 cr)
Students learn to create web-based applications using n-tier architecture to distribute their presentation services, business logic and data services. Students also learn .NET methodologies including state, database driven websites and basic security using C#. Prerequisite: CIS 126, 256 each with a passing grade of 2.0 or better or permission of instructor. (SCC)

CIS 259 - Advanced .NET (5 cr)
This course introduces students to advanced website design topics including AJAX, ADO.Net, website security and web services. Upon completion of this course, students should have a solid foundation in ASP.net essentials to research and design most dynamic websites including informational and e-commerce driven sites. Prerequisite: CIS 114, 258 with a passing grade of 2.0 or better or permission of instructor. (SCC)

CIS 263 - Advanced Windows Server (5 cr)
This course explores Windows Server Administration and covers topics for Microsoft certification exams. The course focuses on advanced topics such as managing, securing, and troubleshooting networking features and services in a Windows Server environment. Prerequisite: CIS 236. (SCC)

CIS 270 - Principles of Network Security (5 cr)
This course is an introduction to network security. Topics covered relate to general network security, common network attacks and how to safeguard against them, authentication methods, e-mail, directory and file transfers. Prerequisite: CIS 251. (SCC)

CIS 271 - Server and Introduction to Wireless Technologies (5 cr)
This course introduces students to advanced-level technical competency of server and introductory wireless issues including planning, installation, configuration, upgrading, maintenance, troubleshooting and disaster recovery. Prerequisite: CIS 205. (SCC)

CIS 272 - Agile Software Development (5 cr)
Students will learn about iterative and incremental development techniques found in agile programming methodologies. Students will have hands on experience working in teams and using tools to do source code versioning, testing, refactoring, and continuous integration. Prerequisite: CIS 258, 284 with a passing grade of 2.0 or better or permission of instructor. (SCC)

CIS 275 - Networking Capstone (5 cr)
This course is a culmination of the network engineering program in which student's research and evaluate emerging technologies and utilize the knowledge gained through the program. Students complete a research paper on technologies currently used in the networking field. Students also set up a network using current and legacy operating systems/hardware. Prerequisite: Permission of instructor only. (SCC)

CIS 276 - Software Development Capstone (5 cr)
Students apply the concepts of structured and object-oriented development to a team project-oriented environment to produce working software. Students choose the appropriate development platform for implementation. Students will work with non-profit organizations, businesses, or college departments in an effort to serve the community. Prerequisite: Permission of instructor. (SCC)

CIS 277 - Database Administration (5 cr)
This course provides a thorough introduction to database administration principles and practices necessary to perform Microsoft SQL Server administration in an enterprise environment and helps in preparing for the Microsoft Certified Solutions Associate Exam 70-462. Prerequisite: CIS 236. (SCC)

CIS 282 - Programming I - Ruby (5 cr)
Students learn programming fundamentals using the RUBY platform. Students implement Ruby with programming concepts using object-oriented terminology. Prerequisite: CIS 146 with a passing grade of 2.0 or better or permission of instructor. (SCC)

CIS 283 - Programming II - Ruby (5 cr)
This course is an extension of CIS 282 and introduces the power of object-oriented programming. Students are challenged to solve problems in an object-oriented fashion. Students learn to extend a class, inheritance and use exceptions, streams and files. Prerequisite: CIS 126, 282 with a passing grade of 2.0 or better or permission of instructor. (SCC)

CIS 284 - Ruby on Rails (5 cr)
Students use the Ruby language and Rails web framework to create scalable and robust web applications. Students learn to develop server-side applications to interface with web pages, making web sites more dynamic and powerful using database driven technologies. Web 2.0 ideas are implemented using AJAX technologies. Prerequisite: CIS 283 with a passing grade of 2.0 or better or permission of instructor. (SCC)

CIS 286 - Cisco Emerging Technologies (5 cr)
Students are introduced to in-demand Cisco Technologies and Certification paths such as CCNA-RS, VoIP, Security, and Wireless Technologies. Topics will vary, and will include a variety of learning materials including hands-on labs and online resources. Prerequisite: CIS 252. (SCC)

CIS 288 - Cooperative Education Work Experience (No Seminar) (1-18 cr)
For course description, see Cooperative Education. (SCC)

COMPUTING-COMPUTER APPLICATIONS

CAPPS 100 - Beginning Computer Skills (2 cr)
For new computer users. A beginning class with a focus on computer terminology and skills. Topics include Windows, Internet, beginning email, and beginning office software applications. (SFCC)

CAPPS 102 - Introduction to Office (1 cr)
This beginning course is designed for students with no previous computer experience. Students learn the basics of Word, Excel, Access, and PowerPoint software. Students apply learning to various business activities and personal applications. (SFCC)

CAPPS 104 - Beginning Windows Operating System (1 cr)
This beginning course introduces students to the latest Microsoft PC Operating System. Students learn how to customize, navigate, manage files and folders, and browse the Internet. Students also learn various control features and settings on the computer. (SFCC)

CAPPS 141 - Word I (2 cr)
Microsoft Word at an introductory level. Students will learn how to navigate, create, edit, format, and save documents. Students will also be able to use headers and footers, lists, pictures, clip art, and tables to enhance documents. (SFCC)

CAPPS 142 - Word II (2 cr)
Microsoft Word at an intermediate level. Students will learn how to create and use styles, WordArt, drawing tools, outlines, charts, web pages, and track changes. Prerequisite: CAPPS 141. (SFCC)

CAPPS 151 - Excel I (2 cr)
Microsoft Excel at an introductory level. Students will learn how to navigate worksheets and workbooks, use formulas and functions, format worksheets and cells. (SFCC)

CAPPS 152 - Excel II (2 cr)
Microsoft Excel at an intermediate level. Students will learn how to use IF functions, create charts and tables, sort and filter data, and use graphic elements. Prerequisite: CAPPS 151. (SFCC)

CAPPS 161 - Access I (2 cr)
Microsoft Access at an introductory level. Students will learn how to create and work with tables, sort and filter records, create and use queries. (SFCC)

CAPPS 162 - Access II (2 cr)
Microsoft Access at an intermediate level. Students will learn how to create and modify forms, reports, table relationships, and queries. Prerequisite: CAPPS 161. (SFCC)

CAPPS 171 - PowerPoint I (2 cr)
PowerPoint at an introductory level. Students will create and edit presentations. Students will be able to format slide elements, insert and apply slide transitions, use themes, clip art, and speaker notes. (SFCC)

CAPPS 172 - PowerPoint II (2 cr)
PowerPoint at an intermediate level. Students will be able to enhance a presentation with graphic elements, insert sound, and create photo albums. Students will also be able to apply and modify slide transitions and animation effects, use charts and graphics in presentations. Prerequisite: CAPPS 171. (SFCC)

CAPPS 180 - Outlook (2 cr)
The purpose of this course is to introduce students to the tools needed to send and receive e-mail, organize schedules, maintain contact lists and notes. Students also may learn other tools to manage messaging and business information. (SFCC)

CAPPS 185 - Digital Marketing Platforms (3 cr)
This course is the study of the theory and practice of social networks. Emphasis is placed on understanding social networks and how they are utilized for business. Students will create, personalize, and manage various social media accounts. (SFCC)

CAPPS 222 - Software Update (1-4 cr)
This course is for intermediate to advanced users of Word, Excel, Access, and PowerPoint. Students will learn the most up-to-date features and commonly used tools of the application software and be able to apply new methods to a variety of problem solving activities. (Repeatable up to 4 credits.) Prerequisite: Permission of instructor. (SFCC)

CAPPS 241 - Word III (2 cr)
Microsoft Word at an advanced level. Students will learn advanced table features, mail merging, and forms. Prerequisite: CAPPS 142. (SFCC)

CAPPS 242 - Word IV (2 cr)
Microsoft Word at an advanced level. Students will learn to work with multi-page documents creating and managing master documents, indexes, and contents pages. Students will also be able to create and use macros and integrate Word with other applications. Prerequisite: CAPPS 241. (SFCC)

CAPPS 251 - Excel III (2 cr)
Microsoft Excel at an advanced level. Students will learn how to create and use named ranges, templates, 3D references. Students will also learn how to use database features and functions and use statistical and logical functions. Prerequisite: CAPPS 152. (SFCC)

CAPPS 252 - Excel IV (2 cr)
Microsoft Excel at an advanced level. Students will learn how to create macros, templates, and forms. Students will also learn nesting functions, data tables, scenarios, and solver. Prerequisite: CAPPS 251. (SFCC)

CAPPS 261 - Access III (2 cr)
Microsoft Access at an advanced level. Students will learn how to create and format forms, create efficient reports, and automate forms. Students will also learn how to integrate Access with other applications. Prerequisite: CAPPS 162. (SFCC)

CAPPS 271 - PowerPoint III (2 cr)
PowerPoint at an advanced level. Students will create and publish custom presentations. Students will learn to integrate PowerPoint with other applications and prepare a culminating project. Prerequisite: CAPPS 172. (SFCC)

COMPUTING-COMPUTER SCIENCE

CS 101 - Computer Literacy (5 cr)
This is an introductory course in computer technology, concepts, operations and applications. Computer terminology is emphasized. It examines the complete system, including hardware, software, data, people and procedures. Students have extensive laboratory exercises in computer operating systems such as exposure to UNIX, DOS and Macintosh; various word processors, spreadsheets, databases and graphics. An exposure to the programming process is provided. Internet and general networking principles are included. Meets the Computer Literacy Requirement for Eastern Washington University and is considered a generally transferable course by the Intercollege Relations Commission (ICRC). (SFCC)

CS 121 - UNIX/Linux (3 cr)
This course is designed for students with some prior computing experience, especially with some operating system experience. The UNIX/Linux operating system will be installed and explored. Students learn how to navigate and administer Linux / Unix from both the command line and through a graphical user interface. Additional topics include software installation, using Linux applications, security and servers. Recommended knowledge of another operating system: DOS, VMS, etc. (SFCC)

CS& 141 - Computer Science I Java (5 cr)
This course is an introduction to the concepts and practices of information representation, computer algorithms, hardware fundamentals, and computer program design and implementation. This course allows students to write, compile, debug, run, analyze and evaluate computer programs written in a current object-oriented language. Prerequisite: MATH& 141 (can be concurrent) or permission of instructor. (SFCC)

CS 142 - Introduction to Computer Science II (5 cr)
This course continues where Introduction to Computer Science I left off, introducing the student to concepts and practices of information representation, computer algorithms, hardware fundamentals, and computer program design and implementation. This course introduces data structures and algorithms basic to the study of computer science, and object-oriented design and implementation. Prerequisite: CS& 141 or permission of instructor. (SFCC)

CS 211 - C for Programmers (5 cr)
This course is designed to cover the syntax of the "C" programming language in the context of structured programming and with the Linux Operating System. It is intended for students with prior experience in computer programming. This course allows students to apply the "C" language and structured programming concepts to a series of programming problems concerning Makefiles, Graphics API's, System API's, Libraries, and Optimization Tools. Prerequisite: CS& 141 or permission of instructor. (SFCC)

CS 223 - Programming for IT (5 cr)
This course focuses on fundamental principles of programming and scripting, and presenting unique visual and object-oriented features. The course allows students to become proficient in scripting and programming, and the principles of good program design. Students write and demonstrate simple structured programs, but with well-developed user interfaces. Programming assignments include procedural techniques and event-driven processing. Prerequisite: IS 144, 210. (SFCC)

CS 253 - Object-Oriented Programming with C++ (5 cr)
This course is designed to cover the main topics of the "C++" programming language and object-oriented programming. It is intended for students with prior experience in computer programming, in general, and the "C" language in particular. This course allows students to apply the "C++" language and object-oriented concepts to a series of programming problems. Prerequisite: CS 142 and CS 211 or permission of instructor. (SFCC)

CS 255 - C for Engineers (5 cr)
This course introduces structured computer programming and problem solving, specifically for pre-engineering students, using the C language. Problem examples emphasize numerical solutions common to engineering. Emphasis is placed on programming principles, programming techniques and the process of solving problems using computers. Prerequisite: MATH& 141 (Can be concurrent). (SFCC)

CS 280 - Data Structures (5 cr)
This course explores data types, abstract data types, and data structures. Efficiency of algorithms is discussed extensively. Sequential and linked lists will be implemented. Students will be able to create, represent, and traverse binary trees. Searching is extensively covered, including dictionaries, priority queues, and hashing. Directed graphs and depth-first algorithms will be introduced. Additional topics include: garbage collection, dynamic storage allocation and sorting. Prerequisite: CS 142. (SFCC)

COMPUTING-INFORMATION SYSTEMS

IS 101 - Planning For Information Technology Students (1 cr)
Three main objectives comprise this course. First, inform students of options, outcomes and consequences of information technology education and training programs. Second, lead students in determining their education/training objectives and developing goals. Finally, prepare specific plans for subsequent education/training. Although concentration on information technology programs at SFCC, other programs are evaluated to determine which are most effective for each student. Students participate in group projects, documenting their research in written and oral reports. Upon completion of the course, students possess a detailed training/education plan. (SFCC)

IS 103 - Information Technology Fundamentals (5 cr)
Students learn computing hardware, operating systems and software applications. They learn to perform daily computer operations, including setting up a computer and installing new software. Skills are developed to evaluate and select business computer software and hardware and discuss and compare common operating systems. Hardware management and network terminology are introduced and selected operating systems are available for the students to experience. (SFCC)

IS 105 - Applications for IT I (3 cr)
This course has three objectives. First, inform students about information technology-related applications available and currently used in the industry. Second, teach the use of these applications through projects based creation and completion. Although concentrating on information technology programs, students are assisted in evaluating other applications to determine which are most effective. Students participate in group projects, documenting their research in written and oral reports. Upon completion of the course, students possess detailed, practical experience with some information technology standard applications. Prerequisite: CAPPS 151 or IS 144. (SFCC)

IS 107 - Applications for IT II (3 cr)
Students build on the skills obtained in IS 105. They expand their knowledge on applications, including word processing, spreadsheets, databases design and management, collaboration applications, and other information technology related applications. Prerequisite: IS 105 or permission of instructor. (SFCC)

IS 120 - Business Computer Use (3 cr)
This is an introductory course for those unfamiliar with computers. The course provides an overview of common software applications. The topics include computer operation, computer terminology, word processing, electronic spreadsheets, graphics, database management and telecommunications. (SFCC)

IS 132 - Computer Ethics and Law (5 cr)
This class will address basic cyberspace legal issues and policy problems. Specific problems in applying law to cyberspace in areas such as intellectual property, privacy, computer crime, and the bounds of jurisdiction will be explored. (SFCC)

IS 140 - Computer and Network Support (5 cr)
This course is a comprehensive, lecture and hands-on course for people who must install and maintain computer systems in a business environment. Hardware technology, operating systems and integration of computers in a network are included in this course. Troubleshooting techniques are studied. Prerequisite: IS 103 or permission of instructor. (SFCC)

IS 144 - Programming Fundamentals (3 cr)
Students learn the system design process and the basics of programming logic. They apply that knowledge with the use of current programming tools. Emphasis is based on process rather than on extensive coding exercises. Prerequisite: IS 210 or permission of instructor. (SFCC)

IS 160 - Internet Fundamentals (1 cr)
This class introduces students to the use of computers for data communications. Students use local area networks (LANs) and telecommunications hardware and software to experience Internet, electronic mail and information services. (SFCC)

IS 162 - Data Communications and Networks (3 cr)
This is an intensive course covering a broad spectrum of telecommunications topics. Telecommunications processes, principles, protocols and media are discussed in depth. Students use telecommunications and network software, study the pros and cons of various systems. The OSI model is studied. (SFCC)

IS 210 - Internet Programming I (1-5 cr)
Students create web pages using XHTML and other scripting languages. Experience is gained in designing and structuring effective and accessible web pages, including pages with tables, forms and frames. Students format pages using cascading style sheets and advanced concepts, including Applets, Flash, XML and JavaScript for XHTML documents. Credits are determined by the successful completion of modules as required by the program or personal learning goals. This course may be repeated up to a maximum of 5 credits. (SFCC)

IS 228 - Internet Servers (5 cr)
This course provides an overview of services installed on an Internet server. Email servers, web servers, database servers will be installed, configured, secured and managed on multiple platforms. Prerequisite: IS 262. (SFCC)

IS 234 - Computer Forensics I (5 cr)
Students learn to provide a secure computer environment and learn techniques for collecting and analyzing computer-related evidence. This class is designed to train computer technicians in the elements of computer forensics investigation. Prerequisite: IS 132 or permission of instructor. (SFCC)

IS 236 - Computer Forensics II (5 cr)
Students learn to provide a secure computer environment and learn techniques for collecting and analyzing computer-related evidence. This class is designed to train computer technicians in the elements of computer forensics investigation. Prerequisite: IS 234 or permission of instructor. (SFCC)

IS 244 - Network Security I (5 cr)
Network Security focuses on the fundamental principles of computer and network security. It is a survey of security fundamentals, networks threats, network operating systems security features, firewalls, virtual private networks, encryption and intrusion detection. Prerequisite: Permission of instructor. (SFCC)

IS 245 - Network Security II (5 cr)
This course is an introduction to the development of Network Systems defense and countermeasures. Students learn the steps utilized to respond to techniques used to compromise networks. It specifically leads students through the process of learning the foundations of network security, firewall implementation and intrusion detection. Prerequisite: IS 244 or permission of instructor. (SFCC)

IS 260 - Database Theory (5 cr)
This course serves as a foundation for working with all types of databases. It reviews what a database is and moves into the various database models such as hierarchical, network, relational, entity and object oriented. It also covers design concepts, SQL, normalization and database administration. Prerequisite: Permission of instructor. (SFCC)

IS 262 - Network Management (5 cr)
This is an intensive course in the technical management of computer networks including servers and workstations. Students, who are expected to understand the principles of telecommunications, will learn to install, manage and maintain a network. Microsoft and Linux are the primary software used. However, other Network Operating Systems (NOS) are installed. This course stresses concepts and practical usage of many types of NOS. Prerequisite: IS 162. (SFCC)

IS 266 - Cooperative Education Seminar (1-2 cr)
For course description, see Cooperative Education. (SFCC)

IS 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SFCC)

COOPERATIVE EDUCATION

COOP 266 - Cooperative Education Seminar (1-2 cr)
Students study areas such as self-awareness and assessment, career awareness and exploration, career decision making, career planning and placement, success factors and attitudes on the job, motivation and initiative, human behavior and relations, and employability skills. A maximum of six credits are allowed toward any degree. Prerequisite: Permission of instructor/coordinator. (SCC, SFCC)

COOP 267 - Cooperative Education Work Experience (1-18 cr)
This course offers coordinated on-the-job, supervised work experience related to the student's field of study. Students may receive variable credits for hours of structured work experience during a quarter. The credit award is based on a maximum of one credit for every three weekly cooperative education hours during a quarter. See specific program requirements for number of credits allowed. Prerequisite: Permission of instructor/coordinator. (SCC, SFCC)

COOP 288 - Cooperative Education Work Experience (No Seminar) (1-18 cr)
This course offers coordinated on-the-job, supervised work experience related to the student's field of study. Students may receive variable credits for hours of structured work experience during a quarter. The credit award is based on a maximum of one credit for every five weekly cooperative education hours during a quarter. See specific program requirements for number of credits allowed. This course differs from COOP 267 in that it has no seminar requirement. Prerequisite: Permission of instructor/coordinator. (SCC, SFCC)

COSMETOLOGY

COS 101 - Introduction to Cosmetology (2 cr)
This course provides introductory concepts in cosmetology. Students learn licensing requirements and state laws, the importance of rest and relaxation, effective communication, and human relationship skills. (SCC)

COS 111 - Cosmetology, Esthetics and Manicuring Concepts I (5 cr)
Students are introduced to the basic concepts of cosmetology. Theories introduced include manicuring, pedicuring, haircutting, permanent waving, hair styling, coloring, shampooing, rinsing, draping and thermal styling. Bacteriology, sterilization and sanitation also are presented. Prerequisite: Concurrent enrollment in APLED 121, COS 112 or permission of department. (SCC)

COS 112 - Cosmetology, Esthetics and Manicuring Applications I (12 cr)
Students are introduced to the basic application techniques and clinical practice on models and mannequins in the areas of thermal styling, hair shaping and styling, shampooing, rinsing and conditioning, permanent waving, manicuring and pedicuring. Safety and sanitary measures are emphasized. No more than 25 percent of the services are performed on mannequins. Prerequisite: Concurrent enrollment in APLED 121, COS 111 or permission of department. (SCC)

COS 113 - Manicuring Concepts I (4 cr)
Students are introduced to the basic concepts of manicuring. Theories presented include the proper use of implements, cosmetics and materials used in manicures, pedicures, and artificial nail applications. Principles of bacteriology and sanitation methods are emphasized. (SCC)

COS 114 - Manicuring Applications I (10 cr)
Students learn basic application techniques and clinical practice on models and mannequins in the following areas: Manicuring, pedicuring, nail preparation, acrylic sculpture, tip application, overlays and nail removal. Sanitation methods utilized in a salon setting are emphasized. No more than 25 percent of all services are performed on models. (SCC)

COS 115 - Manicuring Concepts II (4 cr)
This course continues with the concepts of manicuring introduced in COS 113. Nail structure, nail diseases and disorders, bacteriology, and sanitation methods are emphasized. (SCC)

COS 116 - Manicuring Applications II (10 cr)
Students learn advanced application techniques and clinical practice on models and mannequins in the following areas: Manicuring, pedicuring, nail preparation, acrylic sculpture, tip application, various nail overlays and nail removal. Safety and sanitary methods are emphasized. No more than 25 percent of all services are performed on models. Prerequisite: COS 113, 114. (SCC)

COS 119 - Advanced Manicuring Concepts (1 cr)
This course continues the concepts introduced in COS 115 with an emphasis on the safe use of drills, advanced artificial nail applications, nail art and nail enhancements. Prerequisite: COS 113, 115. (SCC)

COS 121 - Cosmetology, Esthetics and Manicuring Concepts II (5 cr)
Students are introduced to the basic concepts of skin and nail care, and their disorders and diseases. Chemistry for esthetics, electricity and light therapy also are introduced. Bacteriology, decontamination and infection control are emphasized. Prerequisite: COS 111, 112 and concurrent enrollment in CIS 105, COS 122, EMS 120 or permission of department. (SCC)

COS 122 - Cosmetology, Esthetics and Manicuring Applications II (11 cr)
Students are introduced to the basic application techniques and clinical practice on patrons for facials, packs, masks, machine facials, massage, temporary superfluous hair removal, eyebrow arching, lash and brow tintings, and artificial lashes. No more than 25 percent of the services are performed on mannequins. Prerequisite: COS 111, 112 and concurrent enrollment in CIS 105, COS 121, EMS 120 or permission of department. (SCC)

COS 123 - Esthetics Concepts I (4 cr)
This course introduces students to the basic concepts of skin care, skin disorders and diseases of the skin. Chemistry for esthetics, bacteriology, sanitation and sterilization, and electricity and light therapy are emphasized. (SCC)

COS 124 - Esthetics Applications I (10 cr)
Students learn basic application techniques and obtain clinical practice on clients in facials, packs, masks, machine facials, massage, temporary superfluous hair removal, eyebrow arching, lash and brow tinting and artificial eyelashes. No more than 25 percent of all services are performed on models. (SCC)

COS 125 - Esthetics Concepts II (4 cr)
This course introduces students to advanced concepts of skin care, skin structure, color theory, makeup techniques and facials with the aid of machines. (SCC)

COS 126 - Esthetics Applications II (10 cr)
This course introduces students to intermediate application techniques and clinical practice on clients in facials, packs, masks, machine facials, massage techniques, temporary superfluous hair removal, eyebrow arching, lash and brow tinting, artificial eyelash application, make-up application and skin analysis. No more than 25 percent of the services are performed on mannequins. Prerequisite: COS 123, 124. (SCC)

COS 127 - Advanced Esthetics Concepts (1 cr)
This course provides students with advanced concepts required for success in a cosmetology setting. Advanced topics include body treatments and tinting of facial and body hair. Prerequisite: COS 123, 124. (SCC)

COS 129 - Advanced Manicuring Applications (2 cr)
Students are introduced to the advanced concepts of manicuring. Theories presented include the proper use of implements, cosmetics and materials used in manicures, pedicures, nail art and the application of artificial nails. Principles of bacteriology and sanitation methods are emphasized. Prerequisite: COS 113. (SCC)

COS 131 - Intermediate Cosmetology I (5 cr)
This comprehensive course introduces intermediate concepts of hair and scalp structures, disorders, and diseases. Haircutting, permanent waving, hair coloring and curl reformation are emphasized. Prerequisite: COS 121, 122 and concurrent enrollment in COS 132 or permission of department. (SCC)

COS 132 - Intermediate Cosmetology Applications I (11 cr)
Students are introduced to intermediate application and clinical practice in all aspects of cosmetology with emphasis on permanent waving, hair coloring and cutting techniques, and curl reformation. No more than 25 percent of the services are performed on mannequins. Prerequisite: COS 121, 122 and concurrent enrollment in COS 131 or permission of department. (SCC)

COS 135 - Esthetics Concepts III (4 cr)
This advanced course is a continuation of skin care, skin structure, color theory, makeup techniques and facials previously introduced. Prerequisite: COS 123, 125. (SCC)

COS 136 - Esthetics Applications III (5 cr)
This advanced course continues concepts introduced in previous courses to application techniques and clinical practice on clients in facials, packs, masks, machine facials, massage techniques, temporary superfluous hair removal, eyebrow arching, lash and brow tinting, artificial eyelash application, make-up application and skin analysis. No more than 25 percent of the services are performed on mannequins. Prerequisite: COS 123, 124, 125. (SCC)

COS 227 - Advanced Esthetics Applications (2 cr)
This course provides students with advanced practice required for success in a cosmetology setting. Students gain practice in advanced topics including body treatments and tinting of facial and body hair. Since this is an advanced application course, students are expected to complete the assigned projects in a given time with pre-established accuracy rates. Prerequisite: COS 123, 124, 125, 126, 127. (SCC)

COS 241 - Intermediate Cosmetology II (5 cr)
This comprehensive course introduces intermediate concepts of hair styling, permanent waving chemistry, and the care and styling of artificial hair. An in-depth review of skin disorders, as well as hair and scalp disorders, is discussed. Prerequisite: COS 131, 132 and concurrent enrollment in APLED 112, COS 242 or permission of department. (SCC)

COS 242 - Intermediate Cosmetology Applications II (10 cr)
Students are introduced to permanent waving chemistry, intermediate concepts of hair styling, and the care and styling of artificial hair. An in-depth review of skin, hair and scalp disorders is presented. No more than 25 percent of the services are performed on mannequins. Prerequisite: COS 131, 132 and concurrent enrollment in APLED 112, COS 241 or permission of department. (SCC)

COS 251 - Advanced Cosmetology I (5 cr)
This course presents advanced concepts of hair color chemistry and a comprehensive review of haircutting, styling and skin disorders in preparation for the state board exam. Prerequisite: COS 241, 242 and concurrent enrollment in APLED 125, COS 252 or permission of department. (SCC)

COS 252 - Advanced Cosmetology Applications I (10 cr)
This course introduces advanced applications and clinical practice in all aspects of cosmetology with emphasis on permanent waving, haircutting, coloring and styling. No more than 25 percent the services are performed on mannequins. Prerequisite: COS 241, 242 and concurrent enrollment in APLED 125, COS 251 or permission of department. (SCC)

COS 261 - Advanced Cosmetology II (5 cr)
This comprehensive course prepares students for the state board examination with a complete review of textbooks. Hair chemistry and properties, electricity, nail structures and disorders are emphasized. Prerequisite: COS 251, 252 and concurrent enrollment in COS 262, MMGT 205 or permission of department. (SCC)

COS 262 - Advanced Cosmetology Applications II (7-10 cr)
This course introduces advanced applications and clinical practice in all phases of manicuring and cosmetology. Hair styling, haircutting and chemical applications are emphasized. No more than 25 percent of the services are performed on mannequins. Prerequisite: COS 251, 252 and concurrent enrollment in COS 261, MMGT 205 or permission of department. (SCC)

COS 288 - Cooperative Education Work Experience (No Seminar) (1-18 cr)
For course description, see Cooperative Education. (SCC)

CRIMINAL JUSTICE

CJ& 101 - Intro to Criminal Justice (5 cr)
Students will demonstrate an understanding of the U.S. Criminal Justice System in the United States. Students will learn and demonstrate an understanding of the different components of the criminal justice system and how they work together. They will learn the history of American policing and how law enforcement techniques have evolved over the years. Students will learn the different types of crime and its causation. Finally, students will demonstrate an understanding of criminal law and the impact of crime in America. (SCC)

CJ 102 - Administration of Justice (5 cr)
Students explore the processes of criminal justice in this course. The court system, corrections, juvenile justice and the law officer's role are emphasized. (SCC)

CJ 103 - Police Organization and Administration (3 cr)
Students are introduced to principles, concepts and theories relating to police organization and administration within line and staff functions in the uniform and investigative units. (SCC)

CJ& 104 - Intro to Policing (5 cr)
This course examines the role of policing in American society. Theories and practices are covered from historical and contemporary perspectives. This course identifies challenges in law enforcement including the political, social, organizational, and legal environments where the police perform their roles. (SCC)

CJ& 105 - Intro to Corrections (5 cr)
An introduction and survey of the principles and practices of the corrections field in criminal justice settings. The objectives of probation and parole with an overview of rehabilitation methods and institutional settings. An overview of the history of corrections and the justifications and philosophies supporting various correctional programs. (SCC)

CJ& 106 - Intro to Juvenile Justice (5 cr)
Students are introduced to patterns of juvenile crime and delinquency and theories of juvenile criminology. Students will learn theories of how environment, biology, and culture impact juvenile crime. Students will receive an overview of the functions and purpose of juvenile law, as well as the procedures for arrest, detention, petition, records, interviewing, and constitutional law surrounding the processing of juvenile offenders. (SCC)

CJ 107 - Dynamics of Deviant Behavior (5 cr)
Students identify, compare and analyze common behaviors exhibited by offenders in corrections. (SCC)

CJ 108 - Intro to Traffic Enforcement (3 cr)
Students will learn the history, purposes and methods of traffic law enforcement. Students will learn the importance of officer discretion, ethics and professional conduct, with special attention upon their affect on public relations. Students will learn basic accident investigation, DUI investigation, and current issues and trends in traffic safety and enforcement. (SCC)

CJ 109 - Crime Scene Diagramming (5 cr)
Formerly CJ 104. The course emphasis is on the reconstruction of traffic collision scenes and crime scenes. This course prepares students to accurately diagram collision and crime scenes using standard measuring equipment and computer based hardware and software, to aid investigations and prepare exhibits for court. (SCC)

CJ& 110 - Intro to Criminal Law (5 cr)
Students will learn elements of criminal liability, elements of a crime, special elements to prove inchoate crimes and conspiracy crimes. Students will learn the sources of criminal law and how laws can become void for constitutional violations. This course will help students to prosecute crimes in their future careers as law enforcement officers and other criminal justice professionals. Prerequisite: ENGL& 101. (SCC)

CJ& 112 - Intro to Criminology (5 cr)
Students will demonstrate an understanding of the field of criminology, concepts of crime, law, and the nature and extent of crime, theories of crime causation, victimization, social conflict, restorative justice, crime typologies, political crime, and terrorism. Finally, students will demonstrate an understanding of blue collar, white collar, and green collar crimes as well as public order and cybercrimes. (SCC)

CJ 116 - Juvenile Justice (3 cr)
Formerly CJ 106. This course covers the elements, functions and purpose of juvenile law. Arrest, detention, petition, records, interviewing interrogation, overview of contributing factors to delinquency and the officer's role in prevention are emphasized. (SCC)

CJ 128 - Police Ethics (5 cr)
This course provides an exploration ethics and cultural perspectives in criminal justice. In presenting ethics, both the individual perspective and the organizational standpoint will be examined. The presentation of cultural perspectives is designed to aid law enforcement officers to better understand and communicate with members of other cultures. Implicit bias training is presented to help students to examine their beliefs to address any biases which may interfere with fair and equal treatment of citizens. (SCC)

CJ 150 - Criminal Justice Report Writing (5 cr)
This course presents technical writing content specific to the criminal justice system. Students learn standard grammar/punctuation and basic composition skills. The content is chosen from a menu that may include, but is not limited to, the following: standard police reports where information may be obtained from investigations, interrogations or other written reports; forms such as traffic citations, traffic accidents or evidence tags; and a variety of technical reports related to law enforcement. (SCC)

CJ 200 - Police Operations (5 cr)
Students develop principles and skills of risk management as related to daily patrol situations. Skills include cover vs. concealment, command, contain, control and coordination, as well as communication, background and kill zone tactics. Students' skills are tested in a series of real-to-live police situations (field problems). Prerequisite: CJ 150, 201, 205, 237. (SCC)

CJ 201 - Constitutional Law and Criminal Procedure (5 cr)
Students gain understanding of how Constitutional Amendments and United States Supreme Court decisions effect law enforcement procedures. Special focus is made on procedural laws surrounding arrests, searches and seizures. Prerequisite: ENGL& 101, ENGL& 102, and CJ& 110. (SCC)

CJ 202 - Criminal Justice Communications (4 cr)
Students will learn and practice standard techniques for gathering complete, truthful, and accurate information through interviewing witnesses, victims, and suspects. Students will learn to identify internal and external factors, which can influence accuracy of a statement along with techniques to address these problems. Students will learn and practice courtroom demeanor, appearance, and testimony. (SCC)

CJ 203 - Police Interviewing Techniques (3 cr)
The use of scientific interrogation aids are introduced in this course. Complaints, witnesses, psychological implications, admissions, confessions and statements are explored. (SCC)

CJ 204 - Community Relations (5 cr)
Students will identify and discuss the history of Community Oriented Policing and apply 21st Century policing methods used to communicate and build partnerships with diverse cultures. Students will demonstrate an understanding of ethical policing as it relates to working with gangs, juvenile youth, and families. Students will learn and demonstrate an understanding of use of force incidents that impact the community and the importance of building relationships with the media. (SCC)

CJ 205 - Introduction to Criminal Law (5 cr)
Basic concepts of Title 9 and 9A of the Revised Code of Washington are presented in this course. Elements, purposes and functions of criminal law are emphasized. Prerequisite: CJ& 101, CJ 102. (SCC)

CJ 209 - Human Relations (3 cr)
Students develop objective approaches to human relations problems. Students must demonstrate the ability to exercise skills in personal power and nonjudgmental communication skills. (SCC)

CJ& 210 - Police Organization and Management (5 cr)
Students are introduced to the command structure of modern law enforcement organizations as well as the essential functions of law enforcement executives, managers, and supervisors. Students will be able to identify and discuss leadership skills to include communication, problem solving, decision making, and motivating personnel. Finally, students will demonstrate an understanding of community needs and the designing of department goals and objectives to meet these needs. (SCC)

CJ 211 - Crime Scene Investigations (6 cr)
This comprehensive course covers all aspects of crime scene investigations. Areas of emphasis include fundamentals and techniques of investigations; crime scene search; field applications in the development, collection and preservation of physical evidence. Classification and rules of evidence, admissibility, weight and value of evidence, witnesses, and presentation of evidence in court also are included. Prerequisite: CJ 104, 150, 201, 203, 205. (SCC)

CJ 212 - Professional Development (2 cr)
Students will learn to prepare themselves for a job interview by identifying recruiting requirements with various law enforcement agencies. Students will demonstrate an understanding of completing the recruitment and testing process. The importance of ethics and communication will be discussed. (SCC)

CJ 213 - Criminology (3 cr)
Formerly CJ 210. Theories of perception, emotion, motivation, personality and nonverbal communication used as tools by police officers in everyday contacts are introduced in this course. Understanding behavior and predicting human behavior in common police situations are emphasized. (SCC)

CJ 215 - Corrections-Security-Practice and Procedure (5 cr)
Students learn to perform necessary security and procedural functions, operate security devices and understand inmate management principles utilized in security settings. (SCC)

CJ 217 - Criminal Justice Technical Writing (5 cr)
Students will learn and practice writing complete, chronological, and accurate police reports using appropriate formats from information gathered from interviews, their observations, and evidence located at the scene. Traffic tickets, evidence logs, and other common law enforcement forms, as well as more complicated documentations such as search and arrest warrants, and affidavits will be taught and practiced. Prerequisite: ENGL& 101 and ENGL& 102. (SCC)

CJ 225 - Advanced Techniques in Correctional Programming (5 cr)
Students engage in the process of studying, practicing and evaluating correctional program and treatment approaches. (SCC)

CJ 227 - Minority Studies (5 cr)
Students study and participate in discussions of ethnic history, cultural conflicts and legal rights issues, and how they affect the offender. (SCC)

CJ 228 — Ethics - Standards of Conduct (3 cr)
Issues of attitudes, professional responsibility, ethics of professional relationships and personal appearances are incorporated in this seminar format. Interaction with offenders and professionals in the field is included. (SCC)

CJ 229 - Crisis Intervention Training (5 cr)
Students will demonstrate theories of perception, emotion, motivation, personality, and nonverbal communication used as tools by police officers and members in the criminal justice system to deal with those in crisis. Understanding and predicting human behavior from those suffering from mental illness, drug, alcohol, and prescription drug addictions. Students will develop objective approaches to de-escalation and effective communication skills. Students will be exposed to and must show an understanding of various scenarios presented to them in the form of sit sims in the classroom. (SCC)

CJ 230 - Institutional Programming (3 cr)
Students develop program plans, learn prisoners' rights, and supervise and manage inmates. (SCC)

CJ 234 - Organized Crime and Homeland Security (4 cr)
Students will identify and define organized crime and the characteristics of organized crime as well as the similarities and differences between organized crime and terrorism. Students will demonstrate an understanding of the theories such as cultural transmission, differential association, differential opportunity, and social control theory. Finally, students will show an understanding of the structure and business operations of various criminal organizations throughout the United States and the world. (SCC)

CJ 235 - Firearms Safety (2 cr)
Students learn basic knowledge of firearms safety. This course is required to be taken concurrently with CJ 236 Firearms Qualification. This course is currently taught by Range Safety Officers at the Spokane Police Academy. All students handling firearms will be required to pass a background check. Prerequisite: Concurrent enrollment in CJ 236. (SCC)

CJ 236 - Firearms Qualifications (2 cr)
Students learn basic theory and practice of shooting, as well as handling and cleaning firearms. Students fire .9mm handguns and are required to pass the practical police course of fire. This course must be taken concurrently with CJ 236 Firearms Safety. This course is currently taught by firearms instructors at the Spokane Police Academy. Prerequisite: Concurrent enrollment in CJ 235. (SCC)

CJ 237 - Criminal Justice Self-defense (3 cr)
Students study weaponless defense of police officers emphasizing mental control of suspects, crowd control and proper use of the police baton. Prerequisite: Students must pass one quarter of criminal justice physical training with a 2.0 or higher. (SCC)

CJ& 240 - Intro to Forensics (5 cr)
Students will learn the origin, history, and role of forensic science in the investigative process. The value and practical use of evidence, rules for admitting evidence, expert testimony into trial, and the unifying principles of forensic will be discussed. The major fields of forensic science will be explored and the practical application of forensic science in law enforcement will be emphasized. (SCC)

CJ 249 - 21st Century Police Operations (5 cr)
This is a capstone course and students will put into practice all of what they have learned throughout the criminal justice program to include basic police operations as it relates to calls for service, patrol functions, traffic, investigations, reasonable suspicion, and probable cause to arrest. Students will complete crime and arrest reports, demonstrate an understanding of the search warrant process, booking evidence, interview witnesses, victims, and suspects. Students will demonstrate an understanding of radio calls, competing crime broadcasts and an understanding of tactics and officer safety issues. Finally, Students will be subjected to scenarios where they must make decisions to conduct a simple field interview, make an arrest, or complete a crime report. Prerequisite: ENGL& 101 and CJ& 110. (SCC)

CJ 250 - Career Assessment (1-5 cr)
The course emphasis is on gathering and documenting career related training and experience in a portfolio that will be assessed for comparable academic credit. Prerequisite: Basic Computer Skills Recommended. Permission of instructor and evidence of employment required. (SCC)

CJ 266 - Cooperative Education Seminar (1-2 cr)
For course description, see Cooperative Education. (SCC)

CJ 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SCC)

CJ 270 - Introduction to Homeland Security (5 cr)
An introduction to the vocabulary, components and agencies associated with Homeland Security. An examination of historical events, critical threats and state, national, and international laws impacting Homeland Security. Prerequisite: Basic Computer Skills Recommended. Permission of instructor and evidence of employment required. (SCC)

CJ 271 - Intelligence Analysis and Security Management (5 cr)
An exploration of intelligence gathering and analysis outlining basic intelligence policies and functions of the U.S., including dependability and reliability of source information and applying ethical and professional behaviors to intelligence gathering. Prerequisite: Basic Computer Skills Recommended. Permission of instructor and evidence of employment required. (SCC)

CJ 272 - Transportation and Border Security (5 cr)
Identify vulnerabilities and differing security threats for passenger versus freight transportation systems. Explore roles, functions and interdependency between local, federal, international and military agencies regarding border security. Prerequisite: Basic Computer Skills Recommended. Permission of instructor and evidence of employment required. (SCC)

CRIMINAL JUSTICE PHYSICAL EDUCATION

CJPE 132 - Criminal Justice Physical Training (1 cr)
The concept of physical training as a job screen assessment and a lifestyle are explored in this course. Students work toward a fitness level that will allow them to pass any fitness standard based on the National Aerobics Model (Cooper Test) which is also used in Washington State. Five quarters of CJPT are required for graduation. Prerequisite: Students must have medical insurance, a doctor’s release if needed and a fitness assessment is required. (SCC)

CJPE 133 - Criminal Justice Physical Training (1 cr)
The concept of physical training as a job screen assessment and a lifestyle are explored in this course. Students work toward a fitness level that will allow them to pass any fitness standard based on the National Aerobics Model (Cooper Test) which is also used in Washington State. Five quarters of CJPT are required for graduation. Prerequisite: Students must have medical insurance, a doctor's release if needed and a fitness assessment is required. (SCC)

CJPE 241 - Criminal Justice Physical Training (1 cr)
The concept of physical training as a job screen assessment and a lifestyle are explored in this course. Students work toward a fitness level that will allow them to pass any fitness standard based on the National Aerobics Model (Cooper Test) which is also used in Washington State. Five quarters of CJPT are required for graduation. Prerequisite: Students must have medical insurance, a doctor's release if needed and a fitness assessment is required. (SCC)

CJPE 242 - Criminal Justice Physical Training (1 cr)
The concept of physical training as a job screen assessment and a lifestyle are explored in this course. Students work toward a fitness level that will allow them to pass any fitness standard based on the National Aerobics Model (Cooper Test) which is also used in Washington State. Five quarters of CJPT are required for graduation. Prerequisite: Students must have medical insurance, a doctor's release if needed and a fitness assessment is required. (SCC)

CJPE 243 - Criminal Justice Physical Training (1 cr)
The concept of physical training as a job screen assessment and a lifestyle are explored in this course. Students work toward a fitness level that will allow them to pass any fitness standard based on the National Aerobics Model (Cooper Test) which is also used in Washington State. Five quarters of CJPT are required for graduation. Prerequisite: Students must have medical insurance, a doctor's release if needed and a fitness assessment is required. (SCC)

CULINARY ARTS

CUL 110 - Introduction to Culinary Arts (5 cr)
Students learn basic cooking principles including modern kitchen organization, standards of professionalism, and the tools and equipment used in the cooking process. (SCC)

CUL 115 - Food Sanitation (3 cr)
Students are introduced to basic food service sanitation principles with emphasis on cleaning/sanitation methods and the safe storage of food. (SCC)

CUL 123 - Espresso (1-2 cr)
This course introduces students to the techniques and procedures required to successfully operate an espresso stand. (SCC)

CUL 124 - Cooking Applications I (10 cr)
This course continues with the concepts introduced in CUL 110. Students work with raw materials, preliminary cooking and flavoring, and apply a variety of cooking methods including the preparation of stocks, soups, salads, and vegetable and starch products. Prerequisite: Permission of instructor or counselor. (SCC)

CUL 126 - Food Science (5 cr)
This course emphasizes basic cooking methods including the preparation of soups, stocks and sauces; meat, fish and poultry; vegetables, fruits and starches; as well as an introduction to breakfast and baking preparation. Prerequisite: Permission of instructor or counselor. (SCC)

CUL 127 - Banquet Service (2 cr)
Students study theory and learn practical applications in the organization and management of banquets. (SCC)

CUL 131 - A la Carte Service (9 cr)
This course introduces practical applications in the methods used to provide exceptional a la carte services in a variety of settings. Prerequisite: Concurrent enrollment in HM 130. (SCC)

CUL 243 - Theory of Restaurant Baking (5 cr)
Students are introduced to the basic principles of restaurant baking with emphasis on ingredients, yeast dough formulas and techniques, and the mixing and baking of a variety of breads, pies and pastries. (SCC)

CUL 244 - Restaurant Baking Applications (10 cr)
Students are introduced to the preparation of baked goods, desserts and pastries, and the acquisition of baking skills and artistic abilities. Production techniques also are addressed. (SCC)

CUL 253 - Advanced Cooking Theory (5 cr)
Students are introduced to the composition and structure of meats with emphasis on the identification of primal cuts and their relationship to meat selection and cooking methods. Fundamentals of sauce making are also addressed. (SCC)

CUL 254 - A la Carte Cooking I (10 cr)
Students use the skills acquired in CUL 124 and develop more technical skills necessary to cook foods to exceptional levels on a consistent basis while working in a professional kitchen. (SCC)

CUL 255 - Menu Planning (3 cr)
Students are introduced to the composition of menus including the areas of purchasing procedures, merchandising, servicing and pricing of foods. Planning a functional, operative menu using appropriate menu copy and layout is emphasized. Prerequisite: APLED 121. (SCC)

CUL 260 - Presidential (1 cr)
Methods used to provide formal service in a variety of elegant settings are addressed in this course. (SCC)

CUL 263 - Theory of Modern Cuisine (5 cr)
Students are introduced to the cooking principles commonly utilized in the preparation of ethnic and international cuisines. (SCC)

CUL 264 - A la Carte Cooking II (9 cr)
This course continues the concepts introduced in CUL 254 and emphasizes the selection of appropriate cooking methods and the handling, cutting and cooking of a variety of meats and fish products. (SCC)

CUL 265 - Hospitality Cost Controls (5 cr)
Students are introduced to the principles and procedures involved in an effective system of food, labor and sales income control. The development and use of standards, and the calculation of actual costs are emphasized. Prerequisite: Successful completion of first year culinary coursework. (SCC)

CUL 288 - Cooperative Education Work Experience (No Seminar) (1-18 cr)
For course description, see Cooperative Education. (SCC)

CYBER SECURITY

CYBR 320 - Ethical Hacking (5 cr)
This course will prepare students with a working knowledge of how hackers attack networks and digital assets. The course will focus on penetration testing, intrusion detection, social engineering and malware investigation. Prerequisite: Applied BAS degree students only. (SFCC)

CYBR 330 - Endpoint Security (5 cr)
This course will build on students' existing knowledge of common IT resources such as Windows, Linux and network configurations to develop a strong understanding of securing operating systems, applications and network communications. Prerequisite: Applied BAS degree students only. (SFCC)

CYBR 350 - Risk Management (5 cr)
This course is an introduction to the structured process of Risk Management for cyber security professionals. This course will introduce the fundamentals of Risk Management and apply the basics to scenarios to refine the concepts. Prerequisite: Applied BAS degree students only. (SFCC)

CYBR 410 - Encryption (5 cr)
This course will introduce students to the basic theories of encryption. It will examine practical application of encryption technologies such as Public Key Infrastructure and cipher concepts. Prerequisite: Applied BAS degree students only. (SFCC)

CYBR 430 - Cyber Security Policies and Framework (5 cr)
This course will examine the creation and purpose of cyber security focused policies such as Incident Response, Disaster Recovery, Business Continuity. The course will also introduce students to frameworks such as COBIT and ITIL. Prerequisite: Applied BAS degree students only. (SFCC)

CYBR 440 - Security and Compliance (5 cr)
This course will examine current compliance and legal requirements for protecting information resources. Students will examine compliance standards, such as Payment Card Industry Data Security Standards. Students will also examine regulations, such as Sarbanes-Oxley. Certification criteria and processes will be compared. Prerequisite: Applied BAS degree students only. (SFCC)

CYBR 470 - Identity Management (5 cr)
This course will build on students existing knowledge of authentication, authorization and access control. This course will explore the principles of managing identities in the enterprise and examine common enterprise solutions. Prerequisite: Applied BAS degree students only. (SFCC)

CYBR 475 - Capstone Internship (5 cr)
The capstone Internship course offers students the opportunity to integrate their academic studies and apply their knowledge to real world scenarios. The applied approach to blend classroom exercises with actual support cases will finalize our students' learning experience. This course is designed to help our students make final connection between the concepts taught by instructors and how their skills will be used in their careers. Grading option: Pass/Fail. Prerequisite: Applied BAS degree students only. (SFCC)

DENTAL ASSISTING

DENT 111 - Introduction to Dental Assisting (5 cr)
This course is an introduction to the techniques of chairside assisting using principles of four-handed dentistry, instrumentation, maintenance of equipment and administration of local anesthetic. Prerequisite: Concurrent enrollment in DENT 112, 116. (SCC)

DENT 112 - Chairside Related Theory (4 cr)
This course is an introduction to the role of the dental assistant as a member of the dental health team. Techniques and principles of preventive dentistry and microbiology as they relate to aseptic techniques in the dental office are emphasized. Infection control, safety standards and hazardous waste management are addressed. Prerequisite: Concurrent enrollment in DENT 111, 116. (SCC)

DENT 114 - Introduction to Dental Radiology (3 cr)
This course offers instruction in the basic principles of radiography physics, modern intraoral dental radiographic techniques, arrangements and care of darkroom equipment, composition and preparation of solutions, procedure for processing films, mounting films, mannequin practice in exposing films, patient interproximal X-rays for diagnostic purposes, radiation protection and safety guidelines. Prerequisite: Concurrent enrollment in DENT 111, 112, 116. (SCC)

DENT 116 - Dental Restorative Techniques (3 cr)
This course offers instruction in the physical properties, manipulation and uses of dental materials commonly used in restorative dental procedures. Maintenance of equipment used in the laboratory is emphasized. Prerequisite: Enrolled in first quarter of the dental assisting program. (SCC)

DENT 118 - Dental Anatomy (4 cr)
Students learn interrelationships of body structure and functions of all body systems, head and neck anatomy, oral embryology, histology, tooth morphology and dental charting. (SCC)

DENT 121 - Intermediate Chairside Assisting (6 cr)
This course continues with the concepts learned in DENT 111 emphasizing the procedures and instruments of the recognized specialties. Prerequisite: Successful completion of first quarter and concurrent enrollment in DENT 122. (SCC)

DENT 122 - Chairside Related Theory (4 cr)
This course offers instruction in nutrition and dietary counseling as part of dental treatments, applied pharmacology, dental pathology and emergencies in a dental office. Prerequisite: Successful completion of first quarter and concurrent enrollment in DENT 121. (SCC)

DENT 124 - Advanced Dental Radiology (2 cr)
This course offers instruction in advanced techniques of dental radiology, anatomical landmarks and dental anatomy pertaining to dental radiology. Practice taking full-mouth radiographs on children and adults for diagnosis by a dentist and evaluation of films are emphasized. Instruction in maintenance of automatic processors, duplicating, panoramic techniques and equipment also is offered. Prerequisite: Successful completion of first quarter and concurrent enrollment in DENT 121, 122. (SCC)

DENT 126 - Dental Restorative Techniques (4 cr)
This course offers instruction in the physical properties and manipulation of dental materials used in diagnostic and prosthetic procedures. Appropriate instrumentation also is included. Prerequisite: Successful completion of first quarter and concurrent enrollment in DENT 121, 122. (SCC)

DENT 129 - Chairside Clinical Experience (2 cr)
Students acquire clinical practice in handling patients and assisting in four-handed dentistry procedures. The clinical instruction is conducted in selected private dental offices. Clinical assignments are designed to enhance students' competence in performing dental assisting functions. General dentistry is emphasized. Seminars are devoted to evaluation of the clinical experience, discussion of communication in the dental practice and attitude of the dental assisting student. Prerequisite: Successful completion of second quarter with 2.0 GPA or better and satisfactory progress in DENT 121, 122, 124, 126. (SCC)

DENT 131 - Advanced Chairside Assisting (6 cr)
This course offers instruction and practical application of procedures permitted the dental assistant in the State of Washington according to the current State Dental Practice Act. Prerequisite: Successful completion of second quarter. (SCC)

DENT 136 - Dental Restorative Techniques (2 cr)
This course offers advanced instruction in the physical properties and manipulation of dental materials involved in prosthetic procedures. Prerequisite: Successful completion of second quarter and concurrent enrollment in DENT 131. (SCC)

DENT 138 - Office Management (3 cr)
Students learn the nonclinical functions that dental auxiliaries are required to perform emphasizing communications, scheduling, appointments, making financial arrangements, collection techniques, recalls, completion of insurance forms, maintaining an inventory and supply system, and familiarization with computer programs used in dentistry. Prerequisite: Successful completion of second quarter and concurrent enrollment in DENT 131. (SCC)

DENT 139 - Chairside Clinical Experience (8 cr)
Students acquire clinical practice to perfect their competence in performing dental assisting functions that take place under the direct supervision of dentists in private practices, specialties and dental clinics. The major portion of students' time is spent actually assisting or actively participating in patient care. Seminars are held to evaluate and review clinical applications. Prerequisite: Successful completion of second quarter with 2.0 grade or better and satisfactory progress in DENT 131, 136, 138. (SCC)

DENT 141 - EFDA Review Class (5 cr)
This course is designed to provide the Certified Dental Assistant (CDA) review for the Expanded Function Dental Auxiliary (EFDA) course content. The course includes the evaluation of the student's ability to perform skills under the dentist's general supervision to include: Patient oral health instruction; coronal polishing; fluoride treatments; sealants; expose, process and mount dental radiographs. Prerequisite: Successful completion of the Dental Assistant program with a 2.0 grade or better. Admission to the program and concurrent enrollment in DENT 142, 144, 145, 148. (SCC)

DENT 142 - EFDA Review Lab (2 cr)
This course is designed to provide the Certified Dental Assistant (CDA) review for the Expanded Function Dental Auxiliary (EFDA) course content. The course includes correct ergonomic positioning and skills on typodonts and/or simulated patients. Prerequisite: DENT 141, 142. Admission to the program and concurrent enrollment in DENT 141, 144, 145, 148. (SCC)

DENT 144 - EFDA Amalgam Restorations (2 cr)
This course is designed to focus on the didactic, laboratory and clinical components of the amalgam curriculum to include: Armamentarium including various matrices, classification of restorations; components of the prepared tooth; materials, composition of amalgam, advantages and disadvantages, indications and contraindications; placement, condensing and carving; evaluation of restoration; occlusal adjustment. Prerequisite: DENT 141, 142. Admission to the program and concurrent enrollment in DENT 141, 142, 145, 148. (SCC)

DENT 145 - EFDA Amalgam Lab (4 cr)
This course is designed to focus on the didactic, laboratory and clinical components of the amalgam curriculum to include: Armamentarium including various matrices, classification of restorations; components of the prepared tooth; materials, composition of amalgam, advantages and disadvantages, indications and contraindications; placement, condensing and carving; evaluation of restoration; occlusal adjustment. This course includes the lab portion of amalgam restoration. Prerequisite: DENT 141, 142. Admission to the program and concurrent enrollment in DENT 141, 142, 144, 148. (SCC)

DENT 148 - EFDA Amalgam Clinical (3 cr)
This course is designed to focus on the didactic, laboratory and clinical components of the amalgam curriculum to include: Armamentarium including various matrices, classification of restorations; components of the prepared tooth; materials, composition of amalgam, advantages and disadvantages, indications and contraindications; placement, condensing and carving; evaluation of restoration; occlusal adjustment. This course includes the clinical portion of amalgam restoration. Prerequisite: DENT 141, 142. Admission to the program and concurrent enrollment in DENT 141, 142, 144, 145. (SCC)

DENT 151 - EFDA Composite Restorations (3 cr)
This course is designed to focus on the didactic, laboratory and clinical components of the amalgam curriculum to include: Armamentarium including various matrices, classification of restorations; components of the prepared tooth; materials, composition of composite, advantages and disadvantages, indications and contraindications; placement, condensing and carving; evaluation of restoration; occlusal adjustment. Prerequisite: DENT 141, 142. Admission to the program and concurrent enrollment in DENT 152, 154, 155, 158, 160. (SCC)

DENT 152 - EFDA Composite Lab (4 cr)
This course is designed to focus on the didactic, laboratory and clinical components of the amalgam curriculum to include: Armamentarium including various matrices, classification of restorations; components of the prepared tooth; materials, composition of composite, advantages and disadvantages, indications and contraindications; placement, condensing and carving; evaluation of restoration; occlusal adjustment. This course includes the laboratory portion of the course. Prerequisite: DENT 141, 142. Admission to the program and concurrent enrollment in DENT 151, 154, 155, 158, 160. (SCC)

DENT 154 - EFDA Composite Clinical (3 cr)
This course is designed to focus on the didactic, laboratory and clinical components of the amalgam curriculum to include: Armamentarium including various matrices, classification of restorations; components of the prepared tooth; materials, composition of composite, advantages and disadvantages, indications and contraindications; placement, condensing and carving; evaluation of restoration; occlusal adjustment. This course includes the clinical portion of the course. Prerequisite: DENT 141, 142. Admission to the program and concurrent enrollment DENT 151, 152, 155, 158, 160. (SCC)

DENT 155 - EFDA Impressions/Provisional (3 cr)
This course is designed to focus on the didactic, laboratory components of the taking preliminary and final impressions and bite registrations to include computer assisted design and computer assisted manufacture applications. Prerequisite: DENT 141, 142. Admission to the program and concurrent enrollment in DENT 151, 152, 154, 158, 160. (SCC)

DENT 158 - EFDA Impressions/Provisional-Lab (2 cr)
This course is designed to focus on the didactic, laboratory components of the taking preliminary and final impressions and bite registrations to include computer assisted design and computer assisted manufacture applications. This course includes the laboratory portion of the course. Prerequisite: DENT 141, 142. Admission to the program and concurrent enrollment in DENT 151, 152, 154, 155, 158, 160. (SCC)

DENT 160 - EFDA Exam Preparation (3 cr)
This course is designed to focus on the didactic, laboratory components of the taking preliminary and final impressions and bite registrations to include computer assisted design and computer assisted manufacture applications. This course includes the examination portion of the course. Prerequisite: DENT 141, 142. Admission to the program and concurrent enrollment in DENT 151, 152, 154, 155, 158. (SCC)

DIAGNOSTIC MEDICAL SONOGRAPHY

SONO 111 - Diagnostic Ultrasound I (2 cr)
This course is an introduction to the field of diagnostic sonography and the role of the sonographer. The importance of professionalism, ethical and legal issues including AIDS and written communications is stressed. Various types of sonographic procedures will be discussed with their applications to abdominal scanning. Various discussion groups and tours are an integral component of this course. Prerequisite: Admission to the Diagnostic Medical Sonography program and concurrent enrollment in SONO 121, 125. (SCC)

SONO 112 - Vascular Fundamentals (4 cr)
This course is an introduction to basic vascular anatomy of the lower and upper extremities, abdomen, visceral organs and cerebral vasculature with emphasis on the physiology of these systems. An introduction to the concepts essential for the performance and interpretation of vascular exams is also included. Laboratory experience is required. (SCC)

SONO 121 - Human Cross-Section Anatomy (4 cr)
Transverse and sagittal cross-sectional anatomy of the human body is compared to the tomographic images obtained by ultrasound, magnetic resonance (MR) and computed tonography (CT). Emphasis is placed on gross human anatomy as sliced into tomographic planes and the tissue characteristics that create image variations. Laboratory experience is provided. Prerequisite: Admission to Diagnostic Medical Sonography Program and concurrent enrollment in SONO 111, 125. (SCC)

SONO 122 - Vascular Procedures I (4 cr)
This course introduces students to the basic vascular procedures used to assess the lower and upper extremities, abdomen, visceral organs and cerebral vasculature with emphasis on the ultrasonic examinations of these systems. Instrumentation commonly used in the vascular laboratory is also presented. Laboratory experiences are required. Prerequisite: Admission to the program and concurrent enrollment in SONO 135. (SCC)

SONO 123 - Survey of Cardiac Sonography (5 cr)
A survey of basic fetal and adult cardiac sonography with an emphasis on normal cardiac development, normal anatomy, congenital defects, and acquired heart disease states. Standard sonographic imaging techniques of fetal and adult cardiac structures, instrumentation and examination protocols will be reviewed. Laboratory experience is required. Prerequisite: Admission to Diagnostic Medical Sonography program and concurrent enrollment in SONO 141. (SCC)

SONO 125 - Ultrasound Physics and Instrumentation I (5 cr)
This course emphasizes ultrasound physics, the physics of waves, sound transmission, attenuation, pulse wave principles, transducer and ultrasound systems operations. Prerequisite: Admission to Diagnostic Medical Sonography Program and concurrent enrollment in SONO 111, 121. (SCC)

SONO 131 - Diagnostic Ultrasound II (5 cr)
This course is an investigation of the application for ultrasound in the abdomen, small parts and intraoperative. The pathophysiology of the abdomen, small parts and intraoperative applications is discussed. Emphasis is on the technique and image assessment. Both normal and abnormal anatomy is identified. Laboratory experience is provided. Prerequisite: Concurrent enrollment in SONO 135. (SCC)

SONO 132 - Abdominal Pathophysiology (4 cr)
Students study the process of disease development in the various organs of peritoneal and retroperitoneal cavities. Infectious, inflammatory, and neoplastic conditions of each organ/gland are explored. (SCC)

SONO 135 - Ultrasound Physics and Instrumentation II (5 cr)
This is a continuation of the concepts introduced in SONO 125. Ultrasound physics with emphasis on the Doppler techniques, artifacts, and utilizing instrumentation to investigate the principles of Doppler technique and artifacts. Prerequisite: Admission to Diagnostic Medical Sonography Program and concurrent enrollment in SONO 131. (SCC)

SONO 141 - Diagnostic Ultrasound III (5 cr)
Ultrasonic procedures and techniques utilized within the OB/GYN specialty are discussed. Scanning techniques, pathology and ethical issues are also included. Laboratory experience is provided using ultrasound simulation to develop normal and abnormal anatomy identification. Prerequisite: Admission to Diagnostic Medical Sonography program and concurrent enrollment in SONO 131. (SCC)

SONO 142 - Diagnostic Ultrasound IV (4 cr)
Applications of ultrasound in the assessment of normal structures and pathology found within the areas of neck, thyroid, prostate, scrotum, breast and musculoskeletal structures. Emphasis is placed on the sonographic identification of anatomy and pathophysiology using sonographic techniques. Laboratory experience is provided and required. (SCC)

SONO 143 - Sonography Clinical I (9 cr)
Students are introduced to the clinical environment by spending four weeks in the clinical setting under the direction of a staff sonographer. Weekly clinical seminars are conducted with faculty. A clinical consciousness is developed with emphasis on professionalism, clinical rapport, medical ethics and patient care. Prerequisite: Admission to Diagnostic Medical Sonography program and concurrent enrollment in SONO 142. (SCC)

SONO 144 - OB/GYN Pathophysiology (4 cr)
Students study the disease process in the female reproductive system, abnormal maternal conditional associated with pregnancy and abnormal fetal development. Infectious, inflammatory, and neoplastic conditions of female pelvis, maternal syndromes, and abnormal fetal development are explored. (SCC)

SONO 251 - Advanced Sonography (4 cr)
Advanced applications of ultrasound in the assessment of pathophysiology found within the abdominal scan, small parts and intraoperative scans, and OB/GYN scans are discussed. Emphasis is placed on the identification of anatomy and physiology as identified in the abnormal situation using ultrasound. (SCC)

SONO 253 - Sonography Clinical II (9 cr)
This course provides hands-on experience in the hospital and clinical environment. Emphasis is placed on the development of clinical techniques in the use of current ultrasound instrumentation in the evaluation of an acquired disease. Students then apply the principles of medical legal ethics and professionalism to the patient, physicians and other members of the health team. Clinical case reports are required. Prerequisite: Admission to Diagnostic Medical Sonography program concurrent enrollment in SONO 251. (SCC)

SONO 263 - Sonography Clinical III (13 cr)
This course provides hand-on experience in the hospital and clinical environment. Emphasis is placed on the development of clinical techniques in the use of current ultrasound instrumentation in the evaluation of an acquired disease. Students then apply the principles of medical legal ethics and professionalism to the patient, physicians and other members of the health team. Clinical case reports are required. Prerequisite: Admission to Diagnostic Medical Sonography program. (SCC)

SONO 273 - Sonography Clinical IV (13 cr)
This course is a continuation of SONO 263. This course is a full-time clinical internship and is completed in an affiliated local or out-of-town hospital, clinic or physician's office. Emphasis of this course is on the clinical skills necessary for the performance of and evaluation of the various sonography procedures. Written reports, review of current literature and attendance at conferences is required. Prerequisite: Admission to Diagnostic Medical Sonography program. (SCC)

DIESEL/HEAVY DUTY EQUIPMENT

HEQ 101 - Commercial Driver's License Theory (6 cr)
This course introduces students to the concepts required to properly operate combination vehicles. Emphasis is placed on the knowledge and procedures needed for safe operation by the professional driver. Prerequisite: Concurrent enrollment in HEQ 102. (SCC)

HEQ 102 - Commercial Driver's License Applications (6 cr)
This course is a continuation of HEQ 101 with emphasis on the application of the theory presented in the theory class. The development of safe driving habits and professional characteristics of the tractor trailer driver is stressed throughout the course. Prerequisite: Concurrent enrollment in HEQ 101. (SCC)

HEQ 111 - Basic Electrical Theory (7 cr)
Students are introduced to the theories of basic low voltage DC electricity and mobile air conditioning and their application to the repair of heavy equipment systems. Ignition systems, starting and charging systems, vehicle wiring and auxiliary electrical/electronic components are emphasized. Prerequisite: Concurrent enrollment in HEQ 112. (SCC)

HEQ 112 - Basic Electrical Applications (9 cr)
Students continue learning the concepts introduced in HEQ 111 with emphasis on the diagnosis and repair of low voltage DC electrical and mobile air conditioning systems common to heavy equipment. Prerequisite: Concurrent enrollment in HEQ 111. (SCC)

HEQ 121 - Basic Principles of Engine Theory (7 cr)
Students are introduced to basic engine theory and operation, and their application to the maintenance and repair of heavy equipment. Engine systems and their component parts are emphasized. Prerequisite: Concurrent enrollment in HEQ 122. (SCC)

HEQ 122 - Basic Engine Applications (9 cr)
Students continue learning concepts introduced in HEQ 121 with emphasis on the diagnosis and repair of the basic gasoline and diesel engine systems common to heavy equipment. Prerequisite: Concurrent enrollment in HEQ 121. (SCC)

HEQ 131 - Principles of Power Train Theory (7 cr)
Students are introduced to the theory and operation of clutches, transmissions, differentials, brakes (air and hydraulic), and their application to heavy equipment. Prerequisite: Concurrent enrollment in HEQ 132. (SCC)

HEQ 132 - Power Train Applications (9 cr)
Students continue to learn the concepts introduced in HEQ 131 with emphasis on the diagnosis and repair of clutches, transmissions, differential (air and hydraulic). Practice in the repair and maintenance of bearings and seals, steering and alignment, and fluid couplings is covered. The correct use of specialized shop tools and equipment is emphasized. Prerequisite: Concurrent enrollment in HEQ 131. (SCC)

HEQ 241 - Heavy Equipment Hydraulic Theory (7 cr)
Students are introduced to basic hydraulic theory and operation and their application to the maintenance and repair of heavy equipment. Hydraulic systems and their component parts are emphasized. Prerequisite: HEQ 111, 112, 121, 122, 131 and 132, or permission of instructor and concurrent enrollment in HEQ 242. (SCC)

HEQ 242 - Heavy Duty Equipment Hydraulic Application (9 cr)
This course offers practical application of students' knowledge. Students diagnose, repair and test a variety of hydraulic equipment. Prerequisite: HEQ 111, 112, 121, 122, 131 and 132, or permission of instructor and concurrent enrollment in HEQ 241. (SCC)

HEQ 251 - Practical Shop Procedures (7 cr)
This course offers practical shop application of students' knowledge and skills for the repair of basic electrical, engine, power train and heavy equipment. Prerequisite: HEQ 111, 112, 121, 122, 131 and 132, or permission of instructor and concurrent enrollment in HEQ 252. (SCC)

HEQ 252 - Practical Shop (9 cr)
This course continues with practical shop skills acquired in HEQ 251. Students receive shop experience in repairing a wider variety of heavy equipment. Prerequisite: HEQ 111, 112, 121, 122, 131 and 132, or permission of instructor and concurrent enrollment in HEQ 251. (SCC)

HEQ 261 - Practical Shop Procedures (7 cr)
This course continues with practical shop experience gained in HEQ 251, 252. Simulated shop operations for the repair and maintenance of various power train components are emphasized. Prerequisite: HEQ 111, 112, 121, 122, 131 and 132, or permission of instructor and concurrent enrollment in HEQ 262. (SCC)

HEQ 262 - Practical Shop (6 cr)
Students learn extensive practical applications of all aspects of heavy equipment repair. Use of specialized equipment, tools, machines and techniques is emphasized. In addition, comprehensive diagnosis and repair of transmissions are stressed. Prerequisite: HEQ 111, 112, 121, 122, 131 and 132, or permission of instructor and concurrent enrollment in HEQ 261. (SCC)

HEQ 266 - Cooperative Education Seminar (1-2 cr)
For course description, see Cooperative Education. (SCC)

HEQ 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SCC)

HEQ 288 - Cooperative Education Work Experience (No Seminar) (1-18 cr)
For course description, see Cooperative Education. (SCC)

HEQ 294 - Special Problems (3 cr)
Individualized student needs are addressed in this shop program. Students are assigned specialized shop projects and receive in-depth instruction about the specific aspects of heavy equipment repair. Prerequisite: Permission of instructor. (SCC)

DRAMA

DRMA& 101 - Intro to Theatre (5 cr)
Dramatic forms and styles, historic developments of the theater and contemporary theater practices. (SCC, SFCC)

DRMA 106 - Rehearsal and Performance (1-5 cr)
This is a course in which students receive training and practical experience in acting, directing or technical theater. Each quarter's production provides the necessary laboratory experience. Recommended for those desiring an overall acquaintance with various phases of theatrical production. Prerequisite: Permission of instructor. (SCC, SFCC)

DRMA 107 - Rehearsal and Performance (1-5 cr)
This is a course in which students receive training and practical experience in acting, directing or technical theater. Each quarter's production provides the necessary laboratory experience. Recommended for those desiring an overall acquaintance with various phases of theatrical production. Prerequisite: Permission of instructor. (SCC, SFCC)

DRMA 108 - Rehearsal and Performance (1-5 cr)
This is a course in which students receive training and practical experience in acting, directing or technical theater. Each quarter's production provides the necessary laboratory experience. Recommended for those desiring an overall acquaintance with various phases of theatrical production. Prerequisite: Permission of instructor. (SCC, SFCC)

DRMA 120 - Performance and Audition Techniques (3 cr)
Familiarization with the stage and technique in movement, development of technique and character through pantomimic suggestion, and study of the script from the actor's point of view. (SFCC)

DRMA 121 - Contemporary Acting (3 cr)
Definition of character and exercises in character portrayal, definition of mood or emotion and exercises in portrayal of attitude, and performance of characterization in representative scenes from major works of dramatic literature. Prerequisite: DRMA 106 or 120 or permission of instructor. (SFCC)

DRMA 211 - Scenic Design I (3-5 cr)
Students learn the foundations and processes of scenic design for the stage, including period research, rendering, 3D modeling and construction. Students participate in the collaborative construction of a set. This course is appropriate for students with interests in drama, interior design and fine arts. (SFCC)

DRMA 212 - Costume Design I (3-5 cr)
Students learn the foundations and processes of costume design, including period research, rendering and fabrication. This course is appropriate for students with interests in drama, fashion and fine arts. (SFCC)

DRMA 220 - Classical Acting (5 cr)
Students study definition of character and exercises in character portrayal, definition of mood or emotion. They do exercises in portrayal of attitude and performance of characterization in scenes from major classical works of dramatic literature. Prerequisite: DRMA& 101 or DRMA 120 or 121 or permission of instructor. (SFCC)

DRMA 230 - Stagecrafting Theatrical Design (1-5 cr)
Students become proficient in understanding the theater environment, specifically theory of scene design and plans, construction techniques, scene painting, stage lighting techniques, purpose of lighting and design and costuming, properties and sound. May be repeated for a total of 15 credits. (SFCC)

DRMA 233 - Makeup (2 cr)
Purposes of stage makeup, physical features affected by makeup techniques, and technical skills in the application of stage makeup. (SFCC)

EARLY CHILDHOOD EDUCATION

ECED& 100 - Child Care Basics (3 cr)
Designed to meet licensing requirements for early learning lead teachers and family home child care providers, STARS 30 hour basics course recognized in the MERIT system. Topics: child growth/ development, cultural competency, community resources, guidance, health/safety/nutrition and professional practice. (SFCC)

ECED 103 - College Success (3 cr)
This course provides an opportunity for students entering early childhood education to learn about services and strategies to help them become successful college students. Prerequisite: Concurrent enrollment in any ECED course. (SFCC)

ECED& 105 - Introduction to Early Childhood Education (5 cr)
Explore the foundations of early childhood education. Examine theories defining the field, issues and trends, best practices, and program models. Observe children, professionals, and programs in action. (SFCC)

ECED& 107 - Health, Safety, Nutrition (5 cr)
This course emphasizes the development of skills needed to ensure good health, nutrition, and safety of children in group care and education programs. Students recognize the signs of abuse and neglect, responsibilities for mandated reporting, and available community resources. (SFCC)

ECED 118 - Early Childhood Education Seminar (0.5-11 cr)
These short-term, skill-building seminars provide students with training options for the early childhood education profession. Content focuses on a variety of aspects of early childhood education. Seminars can be taken prior to ECE coursework or to meet one-time and/or ongoing training requirements. These seminars address 11 Core Competencies outlined in the Washington State Training and Registry System (STARS) and can be used to meet annual requirements. (SFCC)

ECED& 120 - Practicum-Nurturing Relationships (2 cr)
In an early learning setting apply best practice for engaging in nurturing relationships with children. Focus on keeping children healthy and safe while promoting growth and development. (SFCC)

ECED& 132 - Infants and Toddlers (3 cr)
Examine the unique developmental needs of infants and toddlers. Study the role of the caregiver, relationships with families, developmentally appropriate practices, nurturing environments for infants and toddlers, and culturally relevant care. (SFCC)

ECED 133 - Practicum: Infants/Toddlers Care (2 cr)
In an infant or toddler childcare and education program, apply best practices for responsive, respectful, and reciprocal care. 66 practicum hours required in an approved infant or toddler program. (SFCC)

ECED& 134 - Family Child Care (3 cr)
Learn the basics of home/family child care program management. Topics include: licensing requirements; business management; relationship building; health, safety, and nutrition; guiding behavior and; promoting growth and development. (SFCC)

ECED& 139 - Administration of Early Learning Programs (3 cr)
Develop administrative skills required to develop, open, operate, manage, and assess early childhood education and care programs. Explore techniques and resources available for Washington State licensing and NAEYC standard compliance. (SFCC)

ECED& 160 - Curriculum Development (5 cr)
Investigate learning theory, program planning, and tools for curriculum development promoting language, fine/gross motor, social-emotional, cognitive and creative skills and growth in young children (birth-age 8). (SFCC)

ECED& 170 - Learning Environments for Young Children (3 cr)
Design, evaluate, and improve indoor and outdoor environments which ensure quality learning, nurturing experiences, and optimize the development of young children. (SFCC)

ECED& 180 - Language and Literacy (3 cr)
Develop teaching strategies for language acquisition and literacy skill development at each developmental stage (birth-age 8) through the four interrelated areas of speaking, listening, writing, and reading. (SFCC)

ECED& 190 - Observation and Assessment (3 cr)
Collect and record observation of and assessment data in order to plan for and support the child, the family, the group and the community. Practice reflection techniques, summarizing conclusions and communicating findings. (SFCC)

ECED 191 - Practicum: Observation and Assessment (2 cr)
In an early care and education classroom apply best practices working with young children, including observation and assessment of young children. 66 practicum hours required in an approved program. (SFCC)

ECED 282 - Practicum I (5 cr)
This course focuses on the documentation of children's growth and development through a portfolio project. One hundred and thirty-three hours of field experience are required. Prerequisite: ECED& 120 or ECED 102 (SFCC)

ECED 283 - Practicum II (5 cr)
This practicum course is designed to be a synthesizing experience where a student puts theory into practice. It is a continuation of skill building developed in previous practice. Students examine all of the skills/competencies of the professional teacher and develop documentation of his/her own competencies. One hundred and thirty-three hours of field experience are required. Prerequisite: ECED& 120 or ECED 102 (SFCC)

ECHOCARDIOGRAPHY

ECHO 100 - Introduction to Echo and Vascular (2 cr)
Introduction to the field of Echocardiography and Vascular Technology with emphasis on the role of these career pathways. Stresses the importance of professionalism, ethical behavior, and communications. Career opportunities, credentialing, program and health science student handbooks will be reviewed. Prerequisite: Admission to program and concurrent enrollment in ECHO 112, 125. (SCC)

ECHO 112 - Vascular Fundamentals (4 cr)
This course is an introduction to basic vascular anatomy of the lower and upper extremities, abdomen, visceral organs and cerebral vasculature with emphasis on the physiology of these systems. An introduction to the concepts essential for the performance and interpretation of vascular exams is also included. Laboratory experience is required. Prerequisite: Admission to program and concurrent enrollment in ECHO 100, 125. (SCC)

ECHO 116 - Acute Coronary Syndrome (1 cr)
A study of the nations number one killer in its acute phase. Pathophysiology of atherosclerosis. The stable versus the unstable patient. Vulnerable plaque types. STEMI versus NSTEMI patient presentations. The national door to balloon initiative. 12 lead EKG recognition of the signs of ischemia/infarct patterns. Prerequisite: Enrollment in ECHO program or permission of instructor. (SCC)

ECHO 117 - Cardiovascular Pharm 1 (1 cr)
Introduction to cardiovascular pharmacology. A review of control of heart rate, blood pressure, and cardiac output and the common drug groups employed to manipulate these parameters. Prerequisite: Enrollment in ECHO program or permission of instructor. (SCC)

ECHO 122 - Vascular Procedures I (4 cr)
This course introduces students to the basic vascular procedures used to assess the lower and upper extremities, abdomen, visceral organs and cerebral vasculature with emphasis on the ultrasonic examinations of these systems. Instrumentation commonly used in the vascular laboratory is also presented. Laboratory experiences are required. Prerequisite: Admission to program and concurrent enrollment in ECHO 135. (SCC)

ECHO 125 - Ultrasound Physics and Instrumentation I (5 cr)
This course emphasizes ultrasound physics, the physics of waves, sound transmission, attenuation, pulse wave principles, transducer and ultrasound systems operations. Prerequisite: Admission to program and concurrent enrollment in ECHO 100, 112. (SCC)

ECHO 126 - Hemodynamics (2 cr)
Introduction to various forms of invasive monitoring. Emphasis is placed on the basics of hemodynamic monitoring and interpretation. Normal and pathologic examples are introduced. Prerequisite: Enrollment in ECHO program or permission of instructor. (SCC)

ECHO 127 - Technical Skills/Reading Hemodynamics (1 cr)
Introduction to various forms of invasive monitoring. Emphasis is placed on the basics of hemodynamic monitoring and interpretation. Normal and pathologic examples are introduced. Supports concepts taught in ECHO 126. Prerequisite: Permission of instructor. (SCC)

ECHO 128 - Cardiovascular Pharm 2 (1 cr)
Continuation of ECHO 117 Intro to CV Pharm. Advanced Cardiac Life Support drugs are introduced. Pharmacy math is introduced. Pharmacy law is studied. Principles of IV therapy are introduced. Prerequisite: Enrollment in ECHO program or permission of instructor. (SCC)

ECHO 129 - Technical Skills/Pharmacology (1 cr)
Supports ECHO 127 concepts. Case studies of patients during cardiac emergencies will be evaluated for appropriate drug selection. Pharmacy math calculations will be taught. IV therapy techniques will be taught. Prerequisite: Enrollment in ECHO program or permission of instructor. (SCC)

ECHO 131 - Core Concepts in Echo Vasc (2 cr)
The core concepts in cardiac and vascular imaging will be explored. Applications of blood flow and hemodynamic analysis using Doppler and imaging technologies. Review of current literature and standards documents will be conducted. Prerequisite: Admission to program and concurrent enrollment in ECHO 136,138, 253. (SCC)

ECHO 133 - Echo Fundamentals (5 cr)
Introduction to the basic principles and application of the Doppler and echocardiographic procedures. The anatomy, image assessment, hemodynamics and clinical applications of cardiac ultrasound are emphasized. Laboratory experiences are provided. Prerequisite: Admission to program and concurrent enrollment in ECHO 122, 135. (SCC)

ECHO 135 - Ultrasound Physics and Instrumentation II (5 cr)
This course is a continuation of the concepts introduced in ECHO 125. Ultrasound physics emphasizes the Doppler techniques, artifacts, bio utilizing instrumentation to investigate the principles of Doppler techniques and artifacts. Prerequisite: Admission to program and concurrent enrollment in ECHO 122, 133. (SCC)

ECHO 136 - Comparative Imaging Analysis (3 cr)
The student will be exposed to normal anatomy and pathology cases that combine diagnostic medical sonography, computed tomography, magnetic resonance imaging and angiography. The student will gain an understanding of how diagnoses are made and patients are managed on the basis of findings from multiple imaging modalities. Prerequisite: Admission to the program and concurrent enrollment in ECHO 131, 253, 254. (SCC)

ECHO 138 - Cardiovascular Physiology (4 cr)
This course is an advanced study of normal cardiovascular physiology presented in a series of physician lectures and lab demonstrations with applications in invasive and noninvasive cardiology. Prerequisite: BIOL& 241, 242. Admission to program and concurrent enrollment in ECHO 131, 133. (SCC)

ECHO 139 - Surgical Asepsis (1 cr)
Surgical asepsis for health care providers. This class will prepare the student to create a sterile field. Gown and glove themselves and others. Procedural awareness of working in a sterile field will be developed. Prerequisite: Enrollment in ECHO program or permission of instructor. (SCC)

ECHO 140 - Technical Skills/Surgical Asepsis (1 cr)
This class supports ECHO 139. The skills of surgical asepsis and infection control are taught. Working in a sterile field and gowning and gloving are taught. Develop a surgical conscience. Prerequisite: Enrollment in ECHO program or permission of instructor. (SCC)

ECHO 141 - Data Collection and Presentation (3 cr)
Students explore applications in medicine and develop the ability to use the microprocessor for word processing database management and statistical analysis. Principles of statistics are reviewed and applied through database management. Prerequisite: Admission to program and concurrent enrollment in ECHO 142, 143. (SCC)

ECHO 142 - Echo Clinical Preparation (4 cr)
Students develop basic imaging skills by imaging normals within the SCC echocardiography laboratory. Clinical requirements are discussed and defined. The role and job description of the noninvasive cardiovascular technologist are evaluated. Prerequisite: Admission to program and concurrent enrollment in ECHO 141, 143. (SCC)

ECHO 143 - Echo Clinical I (6 cr)
Students spend four weeks in a clinical setting. Two weeks are spent in an echocardiography laboratory assisting staff in patient preparation; imaging time is provided when appropriate. Two weeks are spent in a noninvasive electrophysiology laboratory performing ECGs, exercise tolerance testing, Holter monitoring and pacemaker checks under the direction of a staff technologist. Weekly clinical seminars are conducted with SCC staff. A clinical consciousness is developed with emphasis on professionalism, clinical rapport, medical ethics and patient care. Prerequisite: Admission to program and concurrent enrollment in ECHO 141, 142. (SCC)

ECHO 213 - Electrophysiology (4 cr)
Students are introduced to the field of cardiovascular technology, basic cardiac anatomy; physiology and electrophysiology with emphasis on the performance and interpretation of the electrocardiogram. Laboratory experiences to support these concepts also are included. Prerequisite: Enrollment in noninvasive cardiovascular technology program or permission of instructor. (SCC)

ECHO 251 - Echocardiography Clinical II (6 cr)
Students obtain hands-on experience in hospital and clinical environments. Development of clinical technique in the utilization of current echocardiographic instrumentation in the evaluation of acquired cardiovascular disease is emphasized. Students apply the principles of medical legal ethics and professionalism to the patient, physician and other members of the health team. Clinical case reports are required. Prerequisite: Admission to program and concurrent enrollment in ECHO 253. (SCC)

ECHO 252 - Cardiovascular Pathophysiology (1 cr)
This course describes the pathophysiology of pulmonary diseases, their diagnosis and treatment. Prerequisite: Completion of previous quarter. (SCC)

ECHO 253 - Echocardiography I (6 cr)
Students utilize the fundamentals presented in the first year of noninvasive cardiovascular technology to evaluate acquired cardiovascular testing with emphasis on the performance and interpretation of M-mode, two-dimensional and Doppler echocardiography. Related physician lectures, clinical and laboratory experiences are presented. Prerequisite: Admission to program and concurrent enrollment in ECHO 136, 138, 254. (SCC)

ECHO 254 - Technical Skills Echocardiography I (2 cr)
The student will develop basic skills in performing the Doppler Echo examination on student volunteers. All procedures are performed under the supervision of credentialed cardiac sonographers. Prerequisite: Admission to program and concurrent enrollment in ECHO 253. (SCC)

ECHO 255 - Research Methods and Biostatistics (3 cr)
This course will discuss the basic principles of epidemiology and descriptive biostatistics as they apply to echocardiography and vascular technology. Topics include basic statistics, disease occurrence and recurrence, patterns and trends in a population, and interpretation of results. Prerequisite: Admission to program and concurrent enrollment in ECHO 263, 264. (SCC)

ECHO 261 - Echocardiography Clinical III (14 cr)
Students utilize the skills learned and obtain advanced experience in hospital and clinical environments. Development of clinical technique in the utilization of current echocardiographic instrumentation in the evaluation of acquired cardiovascular disease is emphasized. Students apply the principles of medical legal ethics and professionalism to the patient, physician and other members of the health team. Clinical case reports are required. Prerequisite: Admission to program. (SCC)

ECHO 263 - Echocardiography II (7 cr)
A continued study of cardiac noninvasive diagnostics with emphasis on the new developments and specialty applications. This course includes the echocardiographic approach to congenital heart disease. Physician lectures are utilized. Students will present registry review topics. Statistics and research methods are utilized. Prerequisite: Admission to program and concurrent enrollment in ECHO 261. (SCC)

ECHO 264 - Technical Skills Echo II (2 cr)
A continued study of cardiac noninvasive diagnostics with emphasis on the new developments and specialty applications. Laboratory experiences are provided in a clinical simulation format to develop the essential skills in the performance of the Doppler Echo imaging techniques. This course integrates the complete echocardiographic examination utilizing both fundamental and advanced techniques in a clinical simulation environment. Prerequisite: Admission to program and concurrent enrollment in ECHO 263. (SCC)

ECHO 273 - Echocardiography Clinical IV (14 cr)
Students practice clinical skills previously developed through active participation in a noninvasive cardiovascular laboratory. This full-time clinical internship is completed in an affiliated local or out-of-town hospital. Clinical skills necessary to the performance and evaluation of the M-mode, two-dimensional and Doppler Echocardiogram are emphasized. Written reports, review of current literature and attendance at conferences are required. Prerequisite: Admission to program. (SCC)

ECHO 299 - Independent Studies in Noninvasive Cardiovascular Technology (1-13 cr)
This course is designed for students wishing to complete specialized studies in the field of noninvasive cardiovascular technology. Objectives are developed jointly by the student and instructor. Credit hours are assigned according to the length of time required to complete the objectives. Credits are agreed upon at the time of enrollment. Students complete specialized clinical internships in pediatric echocardiography, color flow mapping or vascular technology. Prerequisite: Current enrollment or graduate of ECHO, or permission of instructor. (SCC)

ECONOMICS

ECON 100 - Fundamentals of Economics (5 cr)
A general introduction covering microeconomics (small sections of the economy), macroeconomics (economic system as a whole) and comparative economic systems. Students who plan to enroll in ECON& 201 or ECON& 202 should not enroll in ECON 100. (SCC, SFCC)

ECON& 201 - Micro Economics (5 cr)
Students are introduced to American economy with emphasis on prices, taxes, wages, production, farm problems, monopolies, labor, poverty and problems of the world economy. (SCC, SFCC)

ECON& 202 - Macro Economics (5 cr)
The general introductory course covering the organization, operation and control of the American economy--problems of inflation, unemployment, taxation, public debt, money and banking, business cycles and economic growth. Capitalism compared with communism and socialism. (SCC, SFCC)

EDUCATION PARAPROFESSIONAL, SPECIAL EDUCATION

EDUC 100 - Exploring Teaching (5 cr)
This course focuses on personal qualities of teachers, the changing face of education, learning theories, teaching methods, classroom management and career planning. Observations in educational settings occur to identify differences in grade levels, child development, and teaching styles. In addition, practical, hands-on experiences are incorporated to complement academic training. (SFCC)

EDUC& 115 - Child Development (5 cr)
Build a functional understanding of the foundation of child development, prenatal to adolescence. Observe and document physical, social, emotional, and cognitive development of children, reflective of cross cultural and global perspectives. (SFCC)

EDUC& 130 - Guiding Behavior (3 cr)
Examine the principles and theories promoting social competence in young children and creating safe learning environments. Develop skills promoting effective interactions, providing positive individual guidance, and enhancing group experiences. (SFCC)

EDUC& 136 - School-Age Care (3 cr)
Develop skills to provide developmentally appropriate and culturally relevant activities and care, specifically: preparing the environment, implementing curriculum, building relationships, guiding academic/social skill development, and community outreach. (SFCC)

EDUC& 150 - Child, Family, Community (3 cr)
Integrate the family and community contexts in which a child develops. Explore cultures and demographics of families in society, community resources, strategies for involving families in the education of their child, and tools for effective communication. (SFCC)

EDUC& 202 - Intro to Education (5 cr)
An orientation course designed to help the student--through an analysis of current educational issues--make a determination as to whether he or she should enter the field of teaching. (SCC, SFCC)

EDUC& 204 - Exceptional Child (5 cr)
This course introduces students to various categories of disabilities, legal and historical foundations for special education services, as well as opportunities to design and access educational resources for exceptional students from infancy to adulthood, within a community of collaboration and inclusion. (SCC, SFCC)

EDUC 252 - Social/Emotional Development (5 cr)
This course begins with an orientation to the discipline of social and personality development through research methodologies and classical theories. Early social and emotional development are explored as are topics of the development of self-achievement, gender issues, and aggression and antisocial conduct. We conclude by considering the impact of family as well as extrafamilial influences, such as TV, peers and schools. Theory and research are applied to real life. (SFCC)

EDUC 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SCC)

EDUC 270 - Introduction to Developmental Disabilities (5 cr)
This course addresses etiology of retardation, unresolved social questions, and problems related to the identification, education and professional/technical training of persons with developmental disabilities. Students are assigned to community agencies where they receive practical experience working with children or adults. Orientation includes current problems and trends in the field of developmental disabilities. Forty-four hours of field experience are required. Prerequisite: EDUC& 204 or permission of instructor. (SFCC)

EDUC 275 - Learning Disabilities (5 cr)
Basic difficulties encountered by children that lead to the label of "learning disabled" are addressed. Perceptual and neurological problems, reading difficulties and other etiological considerations are discussed. Practical classroom suggestions for treatment and remediation of learning disabilities are examined and outlined. Students are assigned to community agencies for practical experience working with children or adults who are experiencing learning problems. Forty-four hours of field experience are required. (SFCC)

EDUC 280 - Behavior/Classroom Management (5 cr)
This course provides a forum in which to explore various behavioral prevention and intervention strategies used in the education of children. Through this course students have opportunities to conduct observations, to develop prevention and interventions for specific situations, and to discuss the ethical issues with regard to behavioral support and management. (SFCC)

EDUC 281 - Education/Special Education Practicum I (5 cr)
Students are placed in an educational setting commensurate with their intended career goal. Key professional competencies are developed incorporating elements of teaching and learning. Integration of theory and practice is accomplished through practical engagement for 132 hours under close supervision. Prerequisite: Permission of instructor. (SFCC)

EDUC 282 - Education/Special Education Practicum II (5 cr)
Students in the education paraprofessional program are placed in a practicum setting, such as a public school or community service agency, where they have an opportunity to observe and work in settings in accordance with their career direction. Students work under the supervision of a qualified professional. As a culminating experience, students publicly present a capstone project of their own design. Prerequisite: EDUC 281. (SFCC)

ELECTRICAL MAINTENANCE AND AUTOMATION

ELMT 102 - Electrical Basics (6 cr)
Students are introduced to the concepts of basic electrical theory, circuitry, meters, and introduction to electrical safety. (SCC)

ELMT 111 - Electrical Math (5 cr)
Concepts of mathematics and their application to the electrical field are presented. Additional areas covered include Ohm's Law, the metric system, algebraic formulas and trigonometry. (SCC)

ELMT 112 - Electrical Theory (5 cr)
Students study matter, atomic structure, electron theory, sources of electricity and magnetism. Prerequisite: ELMT 111 or MATH 96 or permission of instructor. (SCC)

ELMT 113 - Safety and Tools (4 cr)
A theoretical and practical study and its application to the electrical field is presented. This course provides general safety concepts to be applied when working with electric circuits, as well as job safety concepts. (SCC)

ELMT 114 - Materials and Fasteners (4 cr)
Students learn to identify electrical materials and their applications. In addition, students classify, grade and use fasteners, such as bolts, screws, and rivets. Proper torque values are explained. (SCC)

ELMT 122 - DC Circuits (1-5 cr)
Theory and shop application in Ohm's Law, voltage, current, resistance, and power in series, parallel and series-parallel direct current circuits are presented in this course. Prerequisite: ELMT 112 or permission of instructor. (SCC)

ELMT 123 - AC Theory (5 cr)
Students analyze AC series, parallel, and combination circuits with resistance, inductance and capacitive elements using mathematics, measuring devices and other test equipment. Prerequisite: ELMT 122 or permission of instructor. (SCC)

ELMT 124 - Motor Maintenance (2-5 cr)
Students learn to perform the mechanical disassembly, assembly, and/or inspection of bearings, commutators, slip rings, brushes and insulation found in small and medium-sized motors. (SCC)

ELMT 131 - Solid State (2-5 cr)
This course introduces the study of theory and operation of solid state devices such as diodes, transistors, triacs and SCRs. Prerequisite: ELMT 123. (SCC)

ELMT 132 - DC Generators and Motors (1-5 cr)
Theory, design, application and testing of direct current (DC) motors and generators are presented in this course. The teardown and reassembly of DC generators also are included. Prerequisite: ELMT 122. (SCC)

ELMT 133 - AC Motors and Alternators (4 cr)
Theory, design, application and testing of alternating current (AC) motors; single- and three-phase generation of alternating current (single-and poly-phase); paralleling alternators and calculating load and power factor characteristics under various load conditions are presented. Prerequisite: ELMT 123 or permission of instructor. (SCC)

ELMT 134 - Introduction to AC Controls (5 cr)
This course introduces pilot devices, wiring diagrams and basic motor circuits. Areas of emphasis include overload, hand-off automatic and parallel stop-start controls. The wiring and troubleshooting of various motor control circuits also are introduced. (SCC)

ELMT 135 - DC Motor Controls (4 cr)
Students study DC motor control devices such as manual starting rheostats, reduced voltage starting, braking and speed control. The development of ladder diagrams to NFPA standards is addressed. Prerequisite: ELMT 132. (SCC)

ELMT 241 - AC Motor Controls (5 cr)
This course continues with the concepts introduced in ELMT 134 with emphasis on pilot devices, timing circuits, control voltage, ladder diagrams and sensors. Wiring and troubleshooting of various motor control circuits also are included. Prerequisite: ELMT 134. (SCC)

ELMT 242 - Advanced AC Controls (5 cr)
This course is a continuation of the concepts introduced in ELMT 134 and 241 with emphasis on forward and reversing, motor deceleration and braking, advanced timing circuits, and basic sequence control. The wiring and troubleshooting of various motor control circuits also are included. Prerequisite: ELMT 241 or permission of instructor. (SCC)

ELMT 243 - Introduction to Programmable Controllers (4 cr)
This course is an introduction to programmable controllers, hardware, programming fundamentals, numbering systems, memory organization and peripheral devices. Prerequisite: ELMT 134 or permission of instructor. (SCC)

ELMT 244 - Solid State Motor Controls (4 cr)
This course includes the theory of operation, testing and programming of solid-state starters, and DC and AC variable frequency drives. Students use test equipment and manuals including digital volt meters and oscilloscopes. Prerequisite: ELMT 131, 134 or permission of instructor. (SCC)

ELMT 251 - National Electric Code (4 cr)
The National Electrical Code and its application to the safe installation of electrical conductors and equipment is explained in this course. (SCC)

ELMT 252 - Transformers and Industrial Lighting (5 cr)
This course is a comprehensive study of the theory and operation of transformers and industrial lighting. The functions of various types of transformers and the maintenance and repair of industrial lighting systems are emphasized. Students perform the actual hookup and testing of basic single-phase and three-phase transformer connections, observe and demonstrate proper safety and maintenance techniques, and develop service wiring skills. Prerequisite: ELMT 123 or permission of instructor. (SCC)

ELMT 253 - National Electric Code - Article 430 (1-5 cr)
This course offers an in-depth study of Article 430 of the National Electrical Code and its application to motors, motor circuits and controllers. (SCC)

ELMT 254 - Programmable Controller Applications (5 cr)
Practical experience in programming circuits using relay type instructions, timers, counters, data manipulation, arithmetic functions and other advanced techniques is offered in this class. Prerequisite: ELMT 244 or permission of instructor. (SCC)

ELMT 262 - Raceways (1-5 cr)
This course provides practical shop experience in the bending of conduit using hand, mechanical and hydraulic benders. Prerequisite: ELMT 111 or MATH 96 or permission of instructor. (SCC)

ELMT 263 - Wiring Techniques (4 cr)
Students are offered actual lab experience in project layout, support and installation of electrical systems. (SCC)

ELMT 265 - Advanced Programmable Controllers (1-5 cr)
This course is an introduction to the concepts of analog input/output devices, motion control, vision basics, networking programmable controllers, software installation and graphical man/machine interfaces. Practical experience applying this information to motor control is emphasized. Prerequisite: ELMT 254 or permission of instructor. (SCC)

ELMT 266 - Cooperative Education Seminar (1-2 cr)
For course description, see Cooperative Education. (SCC)

ELMT 267 - Cooperative Education Work Experience (1-16 cr)
For course description, see Cooperative Education. (SCC)

ELMT 268 - Programmable Controller Integration (1-5 cr)
This course provides practical experience in industrial process control applications and hardware, plant floor communication networks, and operator interface devices. Prerequisite: ELMT 265. (SCC)

ELMT 288 - Cooperative Education Work Experience (No Seminar) (1-18 cr)
For course description, see Cooperative Education. (SCC)

ELECTRONICS ENGINEERING TECHNICIAN

ELECT 105 - Basic Electronics 3 (5 cr)
Students continue to advance their knowledge of AC circuits including inductors and filters. Prerequisite: ELECT 125, 126, 127 or department chair approval. (SCC)

ELECT 106 - Basic Electronics 3 Lab (4 cr)
This hands-on lab allows students to build, evaluate, and troubleshoot additional AC circuits using oscilloscopes, AC meters, and signal generators. Prerequisite: ELECT 125, 126, 127 or department chair approval and concurrent enrollment in ELECT 105 or department chair approval. (SCC)

ELECT 107 - Electronics Math 3 (3 cr)
In this class students learn to apply logarithmic equations and equations with complex numbers to AC Circuits analysis. Binary, Octal, and Hexadecimal number systems are introduced. Prerequisite: ELECT 125, 126, 127 or department chair approval. (SCC)

ELECT 111 - DC Circuits (9 cr)
Students are introduced to Basic DC Circuit theory, circuit analysis, resistors, conductors, insulators, Ohm's Law, and Kirchhoff's Laws. (SCC)

ELECT 112 - DC Circuits Lab (5 cr)
This hands-on lab allows students to build, evaluate, and troubleshoot, basic DC circuits using DC meters and power sources. Students create technical documents in Microsoft Word and Excel, and simulate circuits in MultiSim. Basic solder techniques are introduced. Prerequisite: Concurrent enrollment in ELECT 111 or department chair approval. (SCC)

ELECT 113 - DC Electronics Math (5 cr)
In this class students review math concepts such as fractions, decimals, percent, and powers of 10, as they apply to DC Circuits. Students also learn to calculate DC circuit parameters using algebraic equations. (SCC)

ELECT 115 - Basic Electronics 1 (6 cr)
Students are introduced to Basic DC Circuit theory, circuit analysis, resistors, conductors, insulators, Ohm's Law, and Kirchhoff's Laws. (SCC)

ELECT 116 - Basic Electronics 1 Lab (3 cr)
This hands-on lab allows students to build, evaluate, and troubleshoot basic DC circuits using DC meters and power sources. Students create technical documents in Microsoft Word and Excel and simulate circuits in MultiSim. Basic solder techniques are introduced. Prerequisite: concurrent enrollment in ELECT 115 or department chair approval. (SCC)

ELECT 117 - Electronics Math 1 (4 cr)
In this class students review math concepts such as fractions, decimals, percent, and powers of 10, as they apply to DC Circuits. Students will also solve algebraic equations and simultaneous linear equations. (SCC)

ELECT 121 - AC Circuits (9 cr)
Students are introduced to basic AC circuit theory, circuit analysis, capacitors, inductors, and filters. Prerequisite: ELECT 111, 112, 113 or department chair approval. (SCC)

ELECT 122 - AC Circuits Lab (5 cr)
This hands-on lab allows students to build, evaluate, and troubleshoot, basic AC circuits using oscilloscopes, AC meters, and signal generators. Prerequisite: ELECT 111, 112, 113 or department chair approval and concurrent enrollment in ELECT 121 or department chair approval. (SCC)

ELECT 123 - AC Electronics Math (5 cr)
In this class students learn to apply Pythagorean Theorem, trigonometric functions, logarithmic equations, and equations with complex numbers to AC Circuits analysis. Binary, Octal, and Hexadecimal number systems are introduced. Prerequisite: ELECT 111, 112, 113 or department chair approval. (SCC)

ELECT 125 - Basic Electronics 2 (7 cr)
Students continue with DC theory and are introduced to basic AC circuit theory, circuit analysis, and capacitors. Prerequisite: ELECT 115, 116, 117 or department chair approval. (SCC)

ELECT 126 - Basic Electronics 2 Lab (3 cr)
This hands-on lab allows students to build, evaluate, and troubleshoot basic DC and AC circuits using oscilloscopes, AC meters, and signal generators. Prerequisite: ELECT 115, 116, 117 or department chair approval and concurrent enrollment in ELECT 125 or department chair approval. (SCC)

ELECT 127 - Electronics Math 2 (3 cr)
In this class students will expand on their knowledge of DC circuit parameter calculations and learn to apply quadratic equations, Pythagorean Theorem, and trigonometric functions. Prerequisite: ELECT 115, 116, 117 or department chair approval. (SCC)

ELECT 131 - Solid State Devices (5 cr)
Students are introduced to the operation and characteristics of semiconductor devices including diodes, transistors, and FETs. Prerequisite: ELECT 121, 122, 123 or department chair approval. (SCC)

ELECT 132 - Solid State Devices Lab (4 cr)
This hands-on lab allows students to build, evaluate, and troubleshoot semiconductor based circuits using oscilloscopes, meters, power supplies, and signal generators. Prerequisite: ELECT 121, 122, 123 or department chair approval and concurrent enrollment in ELECT 131 or department chair approval. (SCC)

ELECT 133 - Computer Systems (5 cr)
Students are introduced to basic computer systems including the motherboard, Bus architecture, BIOS, storage devices, audio/video devices, as well as, computer operating systems, installation, and hardware setup. Prerequisite: ELECT 121, 122, 123 or department chair approval. (SCC)

ELECT 134 - Computer Systems Lab (4 cr)
The course gives the student a hands-on approach to basic computer systems including the motherboard, Bus architecture, BIOS, storage devices, audio/video devices, as well as, computer operating systems, installation, and hardware setup. Prerequisite: ELECT 121, 122, 123 or department chair approval and concurrent enrollment in ELECT 133. (SCC)

ELECT 211 - Digital Concepts (5 cr)
Students are introduced to digital devices such as logic gates, counters, and flip-flops. Students learn how to implement logical expressions in digital circuitry. Prerequisite: ELECT 131, 132, 133, 134 or department chair approval. (SCC)

ELECT 212 - Digital Concepts Lab (4 cr)
Students experience a hands-on approach to theories by performing lab assignments pertaining to the subjects covered in ELECT 211 using digital trainers and logic probes. Prerequisite: ELECT 131, 132, 133, 134, or department chair approval and concurrent enrollment in ELECT 211. (SCC)

ELECT 213 - Basic Computer Systems (5 cr)
Students are introduced to basic computer systems; the motherboard including Bus architecture, BIOS, storage devices, audio/video devices, printing devices, computer power supplies and other I/O devices. Basic peer-to-peer networks are also covered. Prerequisite: ELECT 136, 137, 138, 139 or department chair approval. (SCC)

ELECT 214 - Basic Computer Systems Lab (4 cr)
The course gives the student a hands-on approach to basic computer systems; the motherboard including Bus architecture, BIOS, storage devices, audio/video devices, printing devices, computer power supplies and other I/O devices. Basic peer-to-peer networks are also covered. System maintenance and troubleshooting is emphasized. Prerequisite: ELECT 136, 137, 138, 139 or department chair approval and concurrent enrollment in ELECT 213 or department chair approval. (SCC)

ELECT 215 - Linear Devices (5 cr)
Students are introduced to the characteristics and operation of amplifiers, linear circuits, active filter circuits, and specialized circuits such as comparator, integrator, and differentiator amplifiers. Prerequisite: ELECT 131, 132, 133, 134 or department chair approval. (SCC)

ELECT 216 - Linear Devices Lab (4 cr)
This hands-on lab allows students to build, evaluate, and troubleshoot linear circuits, filter circuits, and other circuits discussed in ELECT 215 using oscilloscopes, meters, power supplies, and signal generators. Prerequisite: ELECT 131, 132, 133, 134 or department chair approval and concurrent enrollment in ELECT 215 or department chair approval. (SCC)

ELECT 221 - RF Communications (5 cr)
Students are introduced to RF communication fundamentals, AM and FM modulations, transmitters, receivers, and antennas. Prerequisite: ELECT 211, 212, 215, 216 or department chair approval. (SCC)

ELECT 222 - RF Communications Lab (4 cr)
Students experience a hands-on approach to theories by performing lab assignments pertaining to the subjects covered in ELECT 221 using spectrum analyzers and RF equipment. Advanced soldering techniques will be introduced. Prerequisite: ELECT 211, 212, 215, 216 or department chair approval and concurrent enrollment in ELECT 221 or department chair approval. (SCC)

ELECT 223 - Advanced Computer Systems (5 cr)
This advanced computer course will cover computer operating systems, installation and hardware setup, specialized computer interfacing, digital communications, data transmission, data cabling and computer diagnostics. Prerequisite: ELECT 213, 214 or department chair approval. (SCC)

ELECT 224 - Advanced Computer Systems Lab (4 cr)
Students experience a hands-on approach to computer operating systems, installation and hardware setup, specialized computer interfacing, digital communications, data transmission, data cabling and computer diagnostics. Prerequisite: ELECT 213, 214 or department chair approval and concurrent enrollment in ELECT 223 or department chair approval. (SCC)

ELECT 225 - Internet of Things (5 cr)
Students are introduced to the Internet of Things including technologies, architectures, connectivity, protocols, security, and regulations. Prerequisite: ELECT 211, 212, 215, 216 or department chair approval. (SCC)

ELECT 226 - Internet of Things Lab (4 cr)
In this hands-on lab students will learn to apply networking hardware fundamentals, demonstrate networking protocol fundamentals, and apply communication network advanced troubleshooting techniques and procedures. Prerequisite: ELECT 211, 212, 215, 216 or department chair approval and concurrent enrollment in ELECT 225. (SCC)

ELECT 231 - Advanced Communications (5 cr)
This course covers transmission lines, radio wave propagation, antennas and fiber optics. The utilization of transmission and receiver techniques is emphasized. Prerequisite: ELECT 221, 222 or department chair approval. (SCC)

ELECT 232 - Advanced Communications Lab (4 cr)
Students experience a hands-on approach to theories by performing lab assignments pertaining to subjects covered in ELECT 231. Prerequisite: ELECT 221, 222 or department chair approval and concurrent enrollment in ELECT 231 or department chair approval. (SCC)

ELECT 233 - Microprocessors and DSP (5 cr)
Students are introduced to microprocessors, digital signal processing, bandwidth characteristics, and signal transmission techniques. Prerequisite: ELECT 221, 222, 225, 226 or department chair approval. (SCC)

ELECT 234 - Microprocessors and DSP Lab (4 cr)
Students experience a hands-on approach to theories by performing lab assignments pertaining to the subjects covered in ELECT 233 such as programming small robots and mini computers. Prerequisite: ELECT 221, 222, 225, 226 or department chair approval and concurrent enrollment in ELECT 233 or department chair approval. (SCC)

ELECT 235 - Photonics I (5 cr)
This course is designed to teach students the fundamental principles of optics, electro-optics, and lasers. Prerequisite: ELECT 221, 222, 225, 226 or department chair approval. (SCC)

ELECT 236 - Photonics I Lab (2 cr)
This hands-on lab is designed to aid students in the understanding of the fundamental principles of optics, electro-optics, and lasers. Prerequisite: ELECT 221, 222, 225, 226 or department chair approval and concurrent enrollment in ELECT 235 or department chair approval. (SCC)

ELECT 245 - Principles of Avionics (5 cr)
Students are introduced to avionics communication, navigation, and flight control systems. Operation and testing using specialized equipment is emphasized. FAA regulations: Parts 43 and 91 as well as FCC requirements are also covered. Prerequisite: Instructor approval and concurrent enrollment in ELECT 246. (SCC)

ELECT 246 - Principles of Avionics Lab (4 cr)
Students experience a hands-on approach to theories by performing lab assignments pertaining to subjects covered in ELECT 245. Operation and testing using specialized equipment is emphasized. Prerequisite: Instructor approval and concurrent enrollment in ELECT 245. (SCC)

ELECT 247 - Avionics Systems (5 cr)
This course covers advanced navigation, flight control, interfacing and troubleshooting systems. FAA required certification testing of transponders, altitude encoders, pitot/static systems and altimeters is also covered. Prerequisite: Instructor permission and concurrent enrollment in ELECT 248. (SCC)

ELECT 248 - Avionics Systems Lab (4 cr)
Students experience a hands-on approach to theories by performing lab assignments pertaining to the subjects covered in ELECT 247. Special emphasis is given to FAA required certification testing of transponders, altitude encoders, pitot/static systems and altimeters. Prerequisite: Instructor permission and concurrent enrollment in ELECT 247. (SCC)

ELECT 255 - Digital Data Communications (5 cr)
This course covers digital modulation, mulitplexing, digital signal processing, systems and data protocols, network operation, troubleshooting techniques, and security policies. Prerequisite: ELECT 231, 232 or department chair approval and concurrent enrollment in ELECT 256 or department chair approval. (SCC)

ELECT 256 - Digital Data Communications Lab (4 cr)
This course allows students to experience a hands-on approach to theories by performing lab assignments pertaining to subjects covered in ELECT 255. Prerequisite: ELECT 231, 232 or department chair approval and concurrent enrollment in ELECT 255 or department chair approval. (SCC)

ELECT 257 - Wireless Communications (5 cr)
This course covers spread spectrum technologies, troubleshooting wireless local area networks, antenna options, security, system design, and installation standards and regulations. Prerequisite: ELECT 231, 232 or department chair approval and concurrent enrollment in ELECT 258 or department chair approval. (SCC)

ELECT 258 - Wireless Communications Lab (4 cr)
Students experience a hands-on approach to theories by performing lab assignments pertaining to subjects covered in ELECT 257. Prerequisite: ELECT 231, 232 or department chair approval and concurrent enrollment in ELECT 257 or department chair approval. (SCC)

ELECT 266 - Cooperative Education Seminar (1-2 cr)
For course description, see Cooperative Education. (SCC)

ELECT 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SCC)

ELECT 271 - Electronics Applications Seminar (5 cr)
This series of lectures focuses on electronics applications and industries. Emphasis will be placed on student interests and future employment opportunities. Students may also work on their resumes. Prerequisite: ELECT 233, 234, 235, 236 or department chair approval and concurrent enrollment in ELECT 272 or department chair approval. (SCC)

ELECT 272 - Electronics Applications Capstone Project (10 cr)
In this hands-on, project based capstone, students identify an area of special interest (for example, robotics, photonics, Internet of Things), research, and build a project. The final projects will be presented to the class. Projects could incorporate devices like Raspberry Pi or Arduino. Students could learn to make their own Printed Circuit Board. Prerequisite: ELECT 233, 234, 235, 236 or department chair approval and concurrent enrollment in ELECT 271 or department chair approval. (SCC)

ELECT 278 - RF Communications (5 cr)
This course covers FCC rules and regulations; radiation power exposure and safety; and television systems including transmitters, translators and receivers. Prerequisite: ELECT 231, 232 or department chair approval and concurrent enrollment in ELECT 279 or department chair approval. (SCC)

ELECT 279 - RF Communications Lab (4 cr)
Students experience a hands-on approach to theories by performing lab assignments pertaining to subjects covered in ELECT 278. Prerequisite: ELECT 231, 232 or department chair approval and concurrent enrollment in ELECT 278. (SCC)

EMERGENCY MEDICAL SERVICES

EMS 120 - Basic First Aid in the Workplace (2 cr)
This is a basic first aid course encompassing the following: bleeding control and bandaging; practical methods of artificial respiration including mouth-to-mouth and mouth-to-nose resuscitation; cardiopulmonary resuscitation; poisons, shock, unconsciousness and stroke; burns and scalds, sunstroke, heat exhaustion, frostbite and freezing; strains, sprains and hernias; fractures and dislocations; proper transportation of injured; bites and stings; and subjects covering specific health hazards likely to be encountered by coworkers of first aid students enrolled in the course. (SCC)

EMS 121 - Emergency Management Training for Professionals (3 cr)
This course was designed to meet new accreditation guidelines and requirements for Allied Health and Nursing students. This course will cover First Aid for Professionals, AHA (CPR for Health Care Providers) and Emergency Preparedness and Management for Health Care Professionals. Successful completion of this course will include a First Aid Card and Health Care Provider CPR card. (SCC)

EMS 122 - Basic Wilderness Survival (4 cr)
This course was designed to meet the basic needs of wilderness survival. This course covers the importance of preparation prior to leaving on a wilderness trip. Understanding how the body responds in different environments, with an emphasis on clothing and gear selection. Students will learn how to build and maintain a fire, build a shelter and learn signaling techniques in survival situations. Students will also learn the importance of water and food in survival situations. (SCC)

EMS 125 - EMT Refresher (3 cr)
This course is designed to meet WA state and NREMT standards for EMT recertification. (SCC)

EMS 128 - Emergency Medical Technician Lecture (10 cr)
This course is for students actively involved in providing pre-hospital care and is not intended as a first aid course to the general public. Students learn to recognize the nature and seriousness of a patient's injury, assess the need for emergency medical care; and administer medical care that may include lifting, moving and positioning the patient to minimize discomfort and prevent further injury safely and effectively. The course meets the NHTSA, Washington State and National Registry for EMT requirements for certification as an EMT-Basic. Prerequisite: 18 years of age, high school diploma or GED certificate, AHA Healthcare Provider or ARC CPR for the Professional Rescuer, and the physical strength to perform normal functions of an EMT-Basic. Students are not eligible for certification until they become a functioning member of a state recognized affiliated EMS providing agency. (SCC)

EMS 129 - Emergency Medical Technician (3.1 cr)
This course is for students actively involved in providing pre-hospital care and is not intended as a first aid course to the general public. Students learn to recognize the nature and seriousness of a patient's injury, assess the need for emergency medical care; and administer medical care that may include lifting, moving and positioning the patient to minimize discomfort and prevent further injury safely and effectively. The course meets the NHTSA, Washington State and National Registry for EMT requirements for certification as an EMT-Basic. Prerequisite: 18 years of age, high school diploma or GED certificate, AHA Healthcare Provider or ARC CPR for the Professional Rescuer, and the physical strength to perform normal functions of an EMT-Basic. Students are not eligible for certification until they become a functioning member of a state recognized affiliated EMS providing agency. (SCC)

EMS 200 - Introduction to Paramedicine (3 cr)
This course prepares students for certification as EMT-P. Students are presented with a solid base of education regarding the paramedic's roles and responsibilities, and the medical/legal issues that apply to the profession. Prerequisite: BIOL& 160, 241, 242 and current Emergency Medical Technician Certification. Admission to the program. (SCC)

EMS 202 - Medical Communication and Documentation (3 cr)
This course describes the appropriate communication and documentation techniques to be used within the EMS Profession with differentiation between medical professionals and the lay public. Instruction will include communication techniques specific to the profession as well as terminology and styles for communication. Prerequisite: Permission of the instructor. (SCC)

EMS 206 - General Pharmacology (3 cr)
This course introduces students to paramedic pharmacology and certification as EMT-P. Students are presented with a solid base of education regarding the paramedic's rules and responsibilities and the medical/legal issues that apply to patient assessment. Prerequisite: BIOL& 160, 241, 242 and current Emergency Medical Technician Certification. Admission to the program. (SCC)

EMS 208 - Patient Assessment (3 cr)
This course introduces students to paramedic pharmacology and certification as EMT-P. Students are presented with a solid base of education regarding the paramedic's rules and responsibilities and the medical/legal issues that apply to patient assessments, proper communication and documentation techniques. Prerequisite: BIOL& 160, 241, 242 and current Emergency Medical Technician Certification. Admission to the program. (SCC)

EMS 210 - General Medicine I (3 cr)
This course introduces students to paramedic topics in general medicine. Prerequisite: Successful completion of prior program course work and permission of the instructor. (SCC)

EMS 212 - General Cardiology (3 cr)
This course prepares students for certification as EMT-P. Extensive coverage of the cardiovascular system, its disease process and the treatment is emphasized. Prerequisite: Successful completion of prior program course work and permission of the instructor. (SCC)

EMS 214 - General Traumatology (3 cr)
This course prepares students for certification as EMT-P. Students are introduced to pharmacology, its applications and the role it plays in the treatment of injured patients. Prerequisite: Successful completion of prior program course work and permission of the instructor. (SCC)

EMS 220 - General Medicine II (3 cr)
This course continues studies on paramedic topics in general medicine. Prerequisite: Successful completion of prior program course work and permission of the instructor. (SCC)

EMS 222 - Life Span Medicine (3 cr)
This course introduces students to differences in medicine applied throughout the life span from pediatrics to geriatrics. Prerequisite: Successful completion of prior program course work and permission of the instructor. (SCC)

EMS 224 - Paramedic Operations (3 cr)
This course introduces students to paramedic operational support. Prerequisite: Successful completion of prior program course work and permission of the instructor. (SCC)

EMS 230 - Special Topics in Paramedicine (3 cr)
Student are provided a variety of pertinent, current Emergency Medical Technician (Paramedic) topics. Course content varies depending upon the topics chosen. Prerequisite: Successful completion of prior program course work and permission of the instructor. (SCC)

EMS 240 - Paramedic Skills Lab I (2 cr)
This course prepares students for certification as EMT-P. The application of various types of intravenous access are introduced. Issues of hemorrhage and shock including numerous types and forms of trauma such as musculoskeletal trauma, soft tissue injuries, burns, head and face trauma, thoracic, abdominal and spinal trauma are emphasized. Prerequisite: BIOL& 160, 241, 242 and current Emergency Medical Technician Certification. Admission to the program. (SCC)

EMS 242 - Paramedic Skills Lab II (2 cr)
This course continues studies in paramedic skills in the laboratory. Prerequisite: Successful completion of prior program course work and permission of the instructor. (SCC)

EMS 244 - Paramedic Skills Lab III (2 cr)
This course continues instruction on paramedic skills in the laboratory. Prerequisite: Successful completion of prior program course work and permission of the instructor. (SCC)

EMS 250 - Paramedic Clinical I (4 cr)
Students are introduced to the clinical environment by spending four weeks in the clinical setting under the direction of a staff Emergency Medical Technician (Paramedic). Weekly clinical seminars are conducted with faculty. A clinical consciousness is developed with emphasis on professionalism, clinical rapport, medical ethics and patient care. Prerequisite: Successful completion of prior program course work and permission of the instructor. (SCC)

EMS 252 - Paramedic Clinical II (4 cr)
This course provides hands-on experience in the hospital and clinical environment. Emphasis is placed on the development of clinical techniques in the emergency department; obstetrics; pediatrics and ICU units. Student then apply the principles of principles of medical legal ethics and professionalism to the patient, physicians and other members of the health team. Clinical case reports are required. Prerequisite: Successful completion of prior program course work and permission of the instructor. (SCC)

EMS 260 - Paramedic Internship I (5 cr)
This course incorporates all of the previous courses into clinical experience for students in the pre-hospital environment. Students spend time with emergency medical service providers practicing and refining the skills acquired during the earlier training medical incident classes. Additional education in related fields including air-operations, medical incident command, rescue awareness, crime scenes and hazardous materials is emphasized. Prerequisite: Successful completion of prior program course work and permission of the instructor. (SCC)

EMS 262 - Paramedic Internship II (5 cr)
This course continues to incorporate all of the previous courses into clinical experience for students in the pre-hospital environment. Students spend time with emergency medical service providers practicing and refining the skills acquired during the earlier training medical incident classes. Additional education in related fields including air-operations, medical incident command, rescue awareness, crime scenes and hazardous materials is emphasized. Prerequisite: Successful completion of prior program course work and permission of the instructor. (SCC)

ENGINEERING

ENGR 103 - Engineering Graphics/CAD (5 cr)
This is a basic graphics course for engineers using manual and computer-aided (CAD) methods. The course emphasizes visualization, spatial relations and design. Multiview working drawings and 3-D pictorial drawings are combined into a design project at course conclusion. Descriptive geometry principles are studied for graphical problem solving, as well as CAD solids modeling. Prerequisite: MATH 94. (SFCC)

ENGR 110 - Engineering Problems and Orientation (3 cr)
This course is an introduction to the world of engineering. It also is an orientation for students who have an interest in engineering but know little about the various disciplines or functional areas. Simple application problems in mechanics, thermal and electrical sciences, and fluids are examined to give students an appreciation for these subjects. There also is an introduction to the personal computer in engineering work. Prerequisite: MATH 94. (SFCC)

ENGR 111 - Engineering Projects (2 cr)
This is a project course that complements ENGR 110. Students work in teams to design and/or build an object. Robots, 3D CAD and creative devices can be used. Prerequisite: ENGR 110 or concurrent enrollment in ENGR 110. (SFCC)

ENGR 120 - Introduction to Engineering Computation (2 cr)
Introduction to modern engineering computing as applied to problems in engineering, mathematics, and science. Introductory instruction using MATLAB software with topics including array and matrix manipulation, functions, graphical analysis, and basic script programming. Prerequisite: MATH& 141. (SFCC)

ENGR 190 - Electronic Logic (5 cr)
The operation and use of linear and digital circuits normally used in and with micro- and minicomputers. Use of system and logic design; build and test typical circuits using TTL logic. Prerequisite: Basic electronics courses with permission of instructor and concurrent enrollment in MATH& 141. (SFCC)

ENGR 201 - Statics (5 cr)
A fundamental course in engineering mechanics for particles and rigid bodies in equilibrium. Problems in two and three dimensions using both scalar and vector algebra methods. Prerequisite: Concurrent enrollment in MATH& 151. (SFCC)

ENGR 202 - Dynamics (5 cr)
Fundamental course in engineering mechanics for particles and rigid bodies experiencing acceleration. Students study unbalanced forces and torques acting on bodies, and the resulting motion using scalar and vector algebraic methods. Prerequisite: ENGR 201. (SFCC)

ENGR 203 - Mechanics of Materials (5 cr)
The study of internal stresses, strains, and deformations of structural members and parts resulting from externally applied loads. Covers design criteria for beams, columns, pressure vessels, bolts, shafts, etc. Prerequisite: ENGR 201. (SFCC)

ENGR 210 - Electric Circuit Theory (5 cr)
A first course in elementary linear circuit analysis for the electrical sciences designed for electrical engineers. Circuit analysis laws, theorems and reduction techniques are studied for first- and second-order circuits. These circuits contain dependent sources and multiple configurations of capacitors and inductors. A weekly lab complements the class lectures. Prerequisite: MATH& 153 (SFCC)

ENGR 211 - Electrical Circuits Applications (1 cr)
In this course, students will explore experimental applications of electrical circuits. Students will design, analyze and test electrical circuits to perform instrumentation, amplification, and control applications. ENGR 211 is intended for students planning to transfer to a semester-based electrical engineering program or for students who would like to gain more experience with electrical circuits. Prerequisite: ENGR 210 or concurrent enrollment in ENGR 210. (SFCC)

ENGR 240 - Applied Numerical Methods for Engineers (3 cr)
Numerical solutions to engineering problems using modern scientific computing tools. Application of mathematical judgment in selecting computational algorithms and communicating results. Prerequisite: ENGR 120 and concurrent enrollment in MATH& 153. (SFCC)

ENGLISH

ENGL 50 - ESL Writing (5 cr)
This course is for ESL students at the low-intermediate level whose writing skills require additional preparation before entering ENGL 61 or ENGL 71. Emphasis is on writing compound and complex sentences. The course provides strategies for developing vocabulary and applying the rules of grammar and punctuation to English sentences. (SCC, SFCC)

ENGL 52 - ESL Reading (5 cr)
This course is for ESL students at the low-intermediate level whose reading skills require additional practice before entering ENGL 62 or ENGL 72. Students work on vocabulary development and improving reading comprehension. (SCC, SFCC)

ENGL 53 - ESL Listening and Speaking (5 cr)
This course is for ESL students at the low-intermediate level whose reading skills require additional practice before entering ENGL 62 or ENGL 72. Students work on vocabulary development and improving reading comprehension. (SCC, SFCC)

ENGL 54 - Beginner Applied Grammar (5 cr)
This course focuses on the grammatical structures high-beginner English language learners need to function in both the real world and academic settings. The course emphasizes controlled and communicative practice through use of grammar in listening, speaking, reading, and writing activities. Prerequisite: Appropriate placement score and by permission of the instructor. (SCC, SFCC)

ENGL 61 - ESL Writing (5 cr)
This course is for ESL students at the intermediate level whose writing skills require additional preparation before entering ENGL 71 or ENGL 81. It provides strategies for developing vocabulary, applying the rule of grammar and punctuation, writing compound and complex sentences, and composing basic paragraphs. (SCC, SFCC)

ENGL 62 - ESL Reading (5 cr)
This course is for ESL students at the intermediate level whose reading skills require additional practice before entering ENGL 72 or ENGL 82. Students work on vocabulary development and improving reading fluency and comprehension. (SCC, SFCC)

ENGL 63 - ESL Listening and Speaking (5 cr)
This course is for ESL students at the intermediate level whose listening and speaking skills require additional practice before entering ENGL 73 or ENGL 83. Students work on listening, speaking and interaction skills necessary for communicating in an academic environment. Emphasis is on experiential learning. Students are given opportunities to develop language competence by participating in various classroom, college and community activities. (SCC, SFCC)

ENGL 64 - Pre-Intermediate Applied Grammar (5 cr)
This course focuses on the grammatical structures English language learners at a pre-intermediate level need to function in both the real world and academic settings. The course emphasizes controlled and commutative practice through use of grammar in listening, speaking, reading, and writing activities. Prerequisite: Appropriate placement score and by permission of the instructor. (SFCC, SCC)

ENGL 71 - ESL Writing (5 cr)
This course prepares ESL (English as a second language) students for college-level writing tasks. The course helps prepare students to write a variety of coherent, well-developed paragraphs and increases the student's fluency and independence in writing. Prerequisite: TOEFL score of 440 or demonstration of the same by written essay. (SCC, SFCC)

ENGL 72 - ESL Reading (5 cr)
This course prepares ESL (English as a second language) students for college-level reading and study tasks. Students concentrate both on learning and applying the skills needed for comprehending various types of required college reading and learn the study strategies to prepare them for college success. Prerequisite: TOEFL score of 440 or demonstration of the same by written essay. (SCC, SFCC)

ENGL 73 - ESL Listening and Speaking (5 cr)
This course prepares ESL (English as a second language) students with the oral communication skills and listening comprehension strategies needed both for communicating with and understanding others in an academic environment. Prerequisite: TOEFL score of 440 or demonstration of the same by written essay. (SCC, SFCC)

ENGL 74 - Intermediate Applied Grammar (5 cr)
This course focuses on the grammatical structures intermediate English language learners need to function in both the real world and academic settings. The course emphasizes controlled and commutative practice through use of grammar in listening, speaking, reading, and writing activities. Prerequisite: Appropriate placement score and by permission of the instructor. (SCC, SFCC)

ENGL 81 - ESL Writing (5 cr)
This course is designed for the ESL (English as a second language) student whose writing skills require additional preparation before entering ENGL 99 or ENGL& 101. (SCC, SFCC)

ENGL 82 - Reading and Study Skills for the ENS (English for the Non-native Speaker (5 cr)
This course is designed to increase the confidence and success of the non-native speaker of English in college-level courses. The course focuses on developing reading, study and testing strategies. (SCC, SFCC)

ENGL 83 - ESL Conversation (5 cr)
This course is designed to increase the ESL (English as a second language) student's ability to understand and use both written and spoken American English at the college level. (SCC, SFCC)

ENGL 84 - High Intermediate/Advanced Applied Grammar (5 cr)
This course will focus on the grammatical structures high-intermediate/advanced English language learners need to function in both the real world and academic settings. The course emphasizes controlled and commutative practice through the use of grammar in listening, speaking, reading, and writing activities. Prerequisite: Appropriate placement score and by permission of instructor. (SCC, SFCC)

ENGL 93 - Individualized Study Skills (1-5 cr)
This course sharpens students' skills in textbook study, note taking and time management as well as in memory improvement and general classroom survival skills. It may not be taken simultaneously with ENGL 94 or ENGL 151. Students can enroll in the same lab course no more than three quarters regardless of the number of hours for which they enroll. Grading option: Pass/fail. (SFCC)

ENGL 94 - Study Skills (5 cr)
This course sharpens students' skills in textbook study, note taking and time management as well as in memory improvement, reading comprehension and classroom survival skills. Students also may be introduced to methods which increase reading rates and develop vocabulary. Prerequisite: SCC-Self-Placement. (SCC, SFCC)

ENGL 96 - Reading Improvement (3-5 cr)
This course focuses on helping students improve their reading. Students will practice various reading comprehension strategies, including vocabulary improvement, pre-reading, active reading, and organizing information. Prerequisite: SCC-Self-Placement. (SCC, SFCC)

ENGL 97 - Basic Writing: From Sentence to Paragraph (5 cr)
This course provides students with the basic elements of grammar and punctuation as they relate to writing complete and accurately punctuated English sentences. The course attends to grammar, ranging from prepositional phrases to independent and dependent clauses to the recognition and proper punctuation of sentence elements. Formal writing tasks include recognition of boundaries and composing basic paragraphs. Prerequisite: SCC-Self-Placement. (SCC)

ENGL 98 - Writing Lab (1-5 cr)
This course offers students individually tailored composition skills through work on paragraphs and essays, sentence structure and mechanics. It is offered in either lecture or lab mode. In the lab mode, the content moves from the paragraph to the essay with emphasis on structure and mechanics, and students earn 5 credits. Students may enroll in the same lab course no more than three quarters regardless of the number of hours for which they enroll. Grading option: Pass/fail. Prerequisite: SCC-Self-Placement. (SCC, SFCC)

ENGL 99 - Improvement of Writing (5 cr)
Students review paragraph development and write several essays. Principles governing sentence structure and punctuation are emphasized. This course may be taken twice for credit. Prerequisite: SCC-Self-Placement. SFCC-2.0 grade in ENGL 97, current enrollment in or successful completion of ENGL 98, appropriate placement score, or permission of instructor. (SCC, SFCC)

ENGL& 101 - English Composition I (5 cr)
This course develops and sharpens the basic principles of writing college-level essays. Students work on a series of essays to improve their ability to write clear, detailed prose and to use texts to support their claims. Competence in mechanics and standard English usage is assumed of all students taking ENGL& 101. Prerequisite: For SCC-Either completion of ENGL 99 with a P or a 2.0 or higher, or appropriate placement. For SFCC-Either completion of ENGL 99 with a P or a 2.0 or higher, or appropriate placement score(s). (SCC, SFCC)

ENGL& 102 - Composition II (5 cr)
This course teaches students research skills by emphasizing the development of critical reading habits, investigative proficiency, and the writing of expository and persuasive prose including documented research essays. Students work to understand academic audiences, increase their clarity and objectivity, and adhere to standard formats. Prerequisite: ENGL& 101 with a 2.0 or higher. (SCC, SFCC)

ENGL 104 - Grammar and Punctuation (3 cr)
Students review the traditional principles of grammar and punctuation and apply these principles. Prerequisite: Concurrent enrollment in ENGL& 101 or permission of instructor. (SCC)

ENGL& 111 - Intro to Literature (5 cr)
Students read and discuss short stories, plays, and poetry with an emphasis on understanding and appreciating the richness and diversity of literature. (SCC, SFCC)

ENGL& 112 - Intro to Fiction (5 cr)
Students explore the verbal and thematic breadth of classic and contemporary fiction. Emphasis is on perceiving the techniques writers use to create an aesthetic experience for readers. (SCC, SFCC)

ENGL& 113 - Intro to Poetry (5 cr)
Students explore the themes, the craft, and the history of poetry, reading and interpreting a diverse selection of poems, with a focus on contemporary writers. Emphasis is on understanding the ways in which poets manipulate language to create meaning. (SCC, SFCC)

ENGL& 114 - Introduction to the Literature of Drama (5 cr)
Students explore the major themes, conventions, and historical trends of drama from ancient Greece to the present. Emphasis is on understanding how playwrights create stories and shape language for live performance. (SCC)

ENGL 120 - Applied Technical Writing for Vocations (3-5 cr)
Presentation of advanced technical writing forms with written assignments selected by vocational faculty from a menu, including such topics as: Short forms (catalog searches, requisitions, memorandums, etc.); technical reports; job search exercises; the proper use of graphics; research skills; revision skills. Prerequisite: ENGL 189 with a 2.0 or better, or permission of English department chair. (SCC)

ENGL 150 - Academic Communication Skills for International Students (5 cr)
This advanced course is offered for students whose native languages are not English. Students learn and practice intensified reading and study strategies as well as other communication skills necessary for academic success. Prerequisite: Placement through assessment, permission of international student program adviser or permission of instructor. (SFCC)

ENGL 151 - College Reading and Study Skills (5 cr)
Students learn strategies to become independent learners and critical thinkers. Emphasis is on understanding how memory works and improving note taking, test taking, textbook reading, time management and vocabulary. The course cannot be taken simultaneously with SCC-ENGL 94; or SFCC-ENGL 93 or 94. (SCC)

ENGL 188 - Introduction to Writing for Vocational Students (1-3 cr)
This course provides instruction in the fundamentals of writing (basic grammar, sentence structure, punctuation, spelling and organization). Students learn to write basic paragraphs including, but not limited to, process, description, cause and effect, and comparison and/or contrast. (SCC)

ENGL 189 - Writing for Vocational Students (1-3 cr)
Provides instruction in basic writing concepts, including sentence structure, paragraphs and longer papers. It also reviews fundamentals of grammar, punctuation and spelling. (SCC)

ENGL 208 - British Literature to 1800 (5 cr)
This survey covers British literature from Beowulf through the 18th century, emphasizing the major writers and their relationships to the significant literary traditions of their time. Discussion topics include the use of poetry, drama, fiction, and essays to explore social and ethical issues, the evolution of the English language and of new literary forms, and the use of satire and humor by writers. (SCC)

ENGL 209 - British Literature since 1800 (5 cr)
This survey explores the progression of British literature from 1800 to the present, including the Romantic movement, the Victorian era, Modernism, and Post-Colonialism. Discussion topics include the relationship between writing and nature, the potential of literature to address injustice and other social issues, and the literary responses to war and other sources of cultural upheaval. (SCC, SFCC)

ENGL& 220 - Intro to Shakespeare (5 cr)
This course explores Shakespeare's plays and sonnets in light of the historical and social milieu of Elizabethan England. Students develop strategies for understanding Shakespeare's language and analyzing his writings as literary expressions and cultural documents. (SCC, SFCC)

ENGL& 235 - Technical Writing (5 cr)
Students learn to communicate information about a particular art, science, trade or profession. The course emphasizes such skills as clarity, objectivity, audience analysis and adherence to format. Students use subjects within their intended majors or career fields to write business correspondence, memoranda, resumes, mechanism descriptions, progress reports and analytical research reports. Prerequisite: Minimum 2.0 in ENGL& 101 or permission of instructor. (SCC, SFCC)

ENGL& 236 - Creative Writing I (5 cr)
This course is an introduction to creative writing, with an emphasis on both reading and writing. We'll do a close study of works of contemporary poetry and fiction to determine how a given work is put together and how writers achieve desired effects. We'll write a series of poetry exercises and a series of fiction ones, and we'll devote several classes to sharing each other's work in progress, both informally and in workshops. Prerequisite: ENGL& 101 or permission of instructor. (SCC, SFCC)

ENGL& 237 - Creative Writing II (5 cr)
This course teaches creative writing for intermediate writers. It is the logical continuation of ENGL& 236; however, it also is suited for students who, provided they have had prior writing experience, wish to pursue specific writing projects or are interested in both receiving and dispensing constructive peer critique in an informal workshop setting. Students have the opportunity to balance class activities with individual writing interests. The emphasis is on writing as a serious craft, and the course focuses primarily on poetry and prose though other forms of writing also may be included. Prerequisite: ENGL& 236 or permission of instructor. (SCC, SFCC)

ENGL 238 - Advanced Expository Writing (5 cr)
This class is a logical extension of ENGL& 101 and ENGL& 102, going beyond rhetorical modes and research skills to explore and practice the longer essay. Prerequisite: Minimum 2.0 in ENGL& 102. (SCC, SFCC)

ENGL 241 - The Bible as Literature (5 cr)
Students experience a literary study of history's most influential book. Readings from the Bible illustrate its major themes and genres. An exploration of the Bible's historical and cultural contexts provides background for these readings. Students gain a foundation for appreciating the Bible's massive impact on subsequent literature. (SCC)

ENGL 247 - American Multicultural Literature (5 cr)
This course surveys the cultural diversity of American literature, with an emphasis on writings from the 1950s to the present. Readings may be drawn from contemporary African American, Asian American, Latina/o, Native American, Jewish, LGBTQ, and/or other traditions. (SCC, SFCC)

ENGL 248 - American Literature to 1865 (5 cr)
This course surveys the writers and issues that formed American literature from the earliest known oral traditions through the Civil War. Discussion topics include the literary responses to historical events such as early contact between Europeans and American native groups, the establishment of the United States as a nation, and slavery; as well as stylistic and thematic innovations by American writers. (SCC, SFCC)

ENGL 249 - American Literature since 1865 (5 cr)
This survey course focuses on selected works of American writers from the Civil War to the present. Discussion topics include the development of cultural and ethnic literary traditions in an era of immigration and social change, as well as literary experimentation and challenges to earlier traditions. (SCC, SFCC)

ENGL 254 - Literary Magazine Production (2-5 cr)
A production course for Legend's, SCC's literary magazine. Discussion and criticism of writing, theory and practice; layout and design; process of publication, theory and practice. (SCC)

ENGL 255 - Advanced Literary Magazine Production (2-5 cr)
A continuation of the concepts introduced in ENGL 254 with emphasis on advanced concepts and production work involved in the creation of Legend's, SCC's literary magazine. Discussion and criticism of writing, theory and practice; layout and design; process of publication, theory and practice. Prerequisite: ENGL 254. (SCC)

ENGL 259 - African American Literature (5 cr)
This course examines the African American literary tradition through the works of key authors from pre-Civil War writings to the present, locating these works in cultural and historical contexts. Discussion topics include the use of writing to advance human rights, the relationship between identity and language use, and the connections between literature and other art forms. (SCC, SFCC)

ENGL 261 - Studies in the Novel (5 cr)
This course explores the variety and cultural impact of the novel as a literary form. Students pursue a deeper appreciation and understanding of the genre and its practitioners. At the instructor's discretion, the course may focus on a particular theme, subgenre, or historical period. (SCC, SFCC)

ENGL 271 - World Literature to 1650 (5 cr)
This course offers a comparative approach to the literature of Europe, Asia (including East Asia, the Middle East, and the Subcontinent), Africa, and the Americas. Readings explore both diversity and continuity in the written expression of multiple world cultures from the dawn of literacy to the Early Modern period. (SCC, SFCC)

ENGL 272 - World Literature since 1650 (5 cr)
This course offers a comparative approach to literature from Europe, Asia, Africa, and the Americas. Students trace the emergence of a global literature from the period of European colonialism to the contemporary multicultural world. (SCC)

ENGL 278 - Women Writers (5 cr)
This course emphasizes the themes, conventions, and techniques employed by women writers. Students analyze fiction, poetry, and drama written by women in order to gain a greater understanding of and appreciation for the literary contributions of women across class and cultural boundaries. (SCC, SFCC)

ENGL 295 - Special Studies in Literature (2-5 cr)
Students analyze, discuss and write about the literature of a particular genre, author or period. The course content varies and may include the following: Classical mythology, contemporary novels, mystery or crime fiction, historical novels, Western fiction, women writers, and Black and Chicano literature. The emphasis of each course is understanding the themes, conventions and techniques of the writers within the genre. The aim is to assist students in recognizing the ways in which literature reflects and challenges the values of its audience. Course may be repeated for credit with different topics. Prerequisite: Minimum of 2.0 in ENGL& 101 or permission of instructor. (SCC, SFCC)

ENGL 335 - Technical and Professional Writing (5 cr)
This course emphasizes the writing of clear and direct prose for a variety of workplace audiences. Topics include usability in writing, communication as a form of problem-solving, research approaches appropriate to technical and professional fields, and visually effective document design. Credit will not be granted for both ENGL& 235 and ENGL 335. Prerequisite: Applied BAS degree students only. (SFCC)

ENVIRONMENTAL SCIENCES

ENVS& 101 - Intro to Env Science (5 cr)
A study of the basic concepts of ecology, including ecosystems structure and function, energy flow, biochemical cycles, limiting factors, population dynamics and community interactions. Emphasis is placed on the use of the scientific method to investigate man's current environmental problems and to propose possible solutions. Meets A.A. degree lab science requirement. (SCC, SFCC)

ENVS 104 - Environmental Conservation (5 cr)
This course introduces basic principles of conservation with emphasis on renewable natural resources, soils, water, forest, range, wildlife and recreation. (SCC)

ENVS 110 - Plant Biology (5 cr)
This course introduces biological principles and the relationship between plants and man. Students learn how the plant-dependent world ecosystem supports human existence. (SCC)

ENVS 207 - Wildlife Biology (5 cr)
This course provides students with the basic principles of wildlife ecology, habitat, population dynamics, behavior and management practices. (SCC)

ENVS 208 - Outdoor Recreation and Interpretation (3 cr)
Students learn about a variety of regional outdoor recreation activities, their management, with an emphasis on safety and environmental ethics. (SCC)

ENVS 210 - Environmental Soil Science (5 cr)
This course introduces the properties, characteristics and functions of forest soils found in natural conditions. The relationships between native vegetation and noncultivated soils are emphasized. (SCC)

ENVS 211 - Weather and Climate (5 cr)
This course introduces the descriptive treatment of meteorological and climatological phenomena including winds, weather fronts, air masses, clouds, temperature and precipitation. Basic computations, weather map analysis, forecasting and instrumentation techniques are emphasized. (SCC)

ENVS 216 - Fisheries Ecology (5 cr)
This course covers the ecology of freshwater fish and fisheries. We will focus on fish biology and identification, riparian structure and function, fisheries management, and approaches to conservation of fisheries. (SCC)

ENVS 217 - Wildlife Techniques (4 cr)
This course builds on basic ecology skills and focuses on applied sampling theory, field approaches, and practical applications relative to wildlife habitat and population sampling methods. Prerequisite: ENVS 207, NATRS 120, 122 or permission of instructor. (SCC)

ENVS 219 - Freshwater Ecology (5 cr)
Students develop a conceptual model of biotic and abiotic factors and processes in stream, lake, riparian and wetland ecosystems. Stream classification, riparian condition assessment and wetland delineation methods commonly used in the Pacific Northwest, including identification and understanding of the role of riparian and aquatic plants, algae, vertebrates and macroinvertebrates, will be emphasized. (SCC)

ENVS 220 - Introduction to Geographic Information Systems for Natural Resources (5 cr)
Students apply cartographic concepts to the development of effective reference and thematic maps using ESRI's suite of ArcGIS software. The evaluation, management, collection and display of spatial data is emphasized. Geoprocessing tools are applied to environmental science scenarios. Basic computer skills required. (SCC)

ENVS 226 - Fisheries Techniques (4 cr)
This course involves the study of sampling techniques for fish and aquatic habitats in streams and lakes in the inland northwest. Emphasis is put on practical experience with techniques commonly used by fisheries technicians. Prerequisite: Enrollment in program or permission of instructor. (SCC)

ENVS 227 - Advanced Wildlife Biology (4 cr)
This course builds on the basic ecology skills developed in ENVS 207 and focuses on the integration and practical application of fish and wildlife ecological theory. (SCC)

ENVS 231 - Applied Research in Geographic Information Systems (1-12 cr)
Students apply skills and abilities to real-world applications in the Environmental Sciences through a project based learning experience. GIS projects may include GPS and remote sensing data collection, data compilation and management and GIS analysis. (SCC)

ENVS 232 - Applied Research in Hydrology (1-12 cr)
Students apply skills and abilities to real-world applications in the Environmental Sciences through a project based learning experience. Hydrology projects may include discharge measurement, developing ratings, stream gage operation, and surveying. (SCC)

ENVS 233 - Applied Research in Water Quality (1-12 cr)
Students apply skills and abilities to real-world applications in the Environmental Sciences through a project based learning experience. Water quality projects may include development of sampling plans, data collection, and field and bench analysis. (SCC)

ENVS 234 - Applied Research in Water/Wastewater Operations (1-12 cr)
Students apply skills and abilities to real-world applications in the Environmental Sciences through a project based learning experience. Water/Wastewater projects may include distribution and collection systems, treatment processes and control systems. (SCC)

ENVS 235 - Applied Research in Watershed Restoration (1-12 cr)
Students apply skills and abilities to real-world applications in the Environmental Sciences through a project based learning experience. Watershed restoration projects may include habitat characterization and project design, management and installation. (SCC)

ENVS 237 - Bird Identification (3 cr)
This course develops bird identification skills necessary to compete for jobs conducting landbird monitoring within this region. (SCC)

FILM

FILM 140 - Silent Cinema (2 cr)
Formerly HUM 140. The silent cinema film course will trace cinema's rapid evolution from its primitive beginnings to the sound era. A variety of films from around the world will be studied in terms of artistic, historical and social contexts. Film clips and full-length films produced and directed by the pioneers of the film industry will be viewed. (SFCC, SCC)

FILM 141 - Introduction to FILM (5 cr)
Formerly HUM 141. This course is a basic introduction to how films communicate meaning and influence society. The course gives the students an understanding of film forms, techniques and styles. Students develop a critical viewpoint and be able to explain the many ways in which film communicates. The overall goal of the course is to produce perceptive and sensitive film viewers. Feature-length films are viewed in class. (SFCC, SCC)

FILM 207 - Basic Movie Making Techniques (5 cr)
This course is designed to acquaint the student with the three basic phases of movie making and emphasizes the directorial and storytelling functions of the media. Prerequisite: FILM 141 or permission of instructor. (SCC)

FILM 221 - Great Film Directors (5 cr)
Formerly HUM 221. This course is designed for students interested in exploring the films, styles and themes of great film directors--American and international. Students study four American directors, four international directors and one independent director. The directors and films studied vary each quarter. In addition, each student researches and studies films of one director of his/her choice. (SFCC)

FILM 222 - American Film Classics (5 cr)
Formerly HUM 222. American classic films, through the 1990s, are viewed and discussed in order to appreciate the evolution of the technical art of the cinema and to analyze how film content is a social barometer of the period of time in which it was produced. Full-length feature classics such as "Birth of a Nation" and "Citizen Kane" are studied. (SFCC)

FILM 224 - Contemporary Global Cinema (5 cr)
Formerly HUM 224. This course is a study of people of different national, ethnic and racial backgrounds via a review of current international cinema. Emphasis is placed on exploring economic, social and political issues. Feature length films will be viewed in class, including Zhang Yomou's Story of Qiu Ju, Nihita Mikhalkov's Burnt by the Sun and Gregory Nava's Mi Familia. (SFCC)

FILM 225 - Independent Film (5 cr)
Formerly HUM 225. This course is for students interested in exploring films made outside of the studio system, usually on low budgets and often exploring themes, values and subject matter which are highly personal and intense in nature including themes which mainstream cinema finds uninteresting, offensive or not likely to produce a profitable product. (SFCC)

FILM 236 - The Documentary Film (5 cr)
Formerly HUM 236. A course designed to explore, analyze and interpret the documentary as an aesthetic form; a device to document human experience; and a vehicle of social change. Students explore the historical perspective of the documentary as well as examine the tradition of film techniques that affect the reality and "truth" depicted through the genre. (SFCC)

FIRE OFFICER

FOD 101 - Fire Officer IA (4 cr)
This course introduces students to a fire officer's duties. Content includes the required mindset, report writing, diversity, workplace safety, decision making, quality assurance, supervisory practices and pre-incident planning. Prerequisite: Fire department affiliation. (SCC)

FOD 102 - Fire Officer IA Work Based Learning (2 cr)
Students learn to manage task assignments, citizens' complaints, accident investigations, member assistant programs, and to apply human resource management policies and safety regulations. Prerequisite: FOD 101 and worksite authorization agreement. (SCC)

FOD 103 - Fire Officer IB (3 cr)
This course gives students a profound understanding of a fire officer's duties. Determining fire cause, emergency operations, compliance issues, scene safety, Incident Management System (IMS), strategy/tactics, assessment and action planning, and the public information officer (PIO) functions are emphasized. Prerequisite: FOD 102 and fire department affiliation. (SCC)

FOD 104 - Fire Officer IB Work Based Learning (3 cr)
This course includes directing training evolutions, managing public inquiries, determining preliminary fire cause, pre-incident planning, incident action planning and emergency operations. Prerequisite: FOD 103 and work site authorization agreement. (SCC)

FOD 110 - Fire Service Leadership (3 cr)
This course emphasizes the effectiveness of a fire officer. Content includes role conflict, creativity, personal power, ethics, problem solving, decision making, situational leadership, delegating, coaching and discipline. Prerequisite: FOD 103 and fire department affiliation. (SCC)

FOD 131 - Fire Service Instructor I (3 cr)
This course introduces students to the skills necessary for fire service instructors. Content includes instructor challenges, presentation skills, legal considerations, student learning, delivery methods, instructional media and evaluating performance. (SCC)

FOD 132 - Fire Service Instructor II Work Based Learning (3 cr)
Students develop skills in the four-step lesson plan. Students design curriculum and present lessons based on their awareness in the fire service utilizing the skills learned from instructor courses. Prerequisite: Fire department affiliation. (SCC)

FOD 133 - Fire Service Instructor II (3 cr)
Students learn to advance as a fire service instructor in this course. Content includes planning models, needs and task analysis, lesson plan development, performance testing, supervisor training programs and critiques. Prerequisite: FOD 132 and fire department affiliation. (SCC)

FOD 140 - Fire Service Incident Safety Officer (2 cr)
This course is designed to help students identify the role of the safety officer on specific types of incidents. Students learn to develop and apply safety plans for various incidents. Prerequisite: Fire department affiliation. (SCC)

FOD 201 - Fire Officer IIA (3 cr)
Further understanding of a fire officer's duties is emphasized in this course. Content includes interaction with government agencies, report writing, managing human resources, RMS, budgets, performance appraisals, exposure reports and public education. Prerequisite: FOD 104 and fire department affiliation. (SCC)

FOD 202 - Fire Officer IIA Work Based Learning (3 cr)
This course emphasizes maximizing member and unit performance, delivering public education, changing policies, budget preparation, report writing and analyzing accident/injury reports. Prerequisite: FOD 201 and work site authorization agreement. (SCC)

FOD 203 - Fire Officer IIB (3 cr)
Further understanding of a fire officer's duties is emphasized in this course. Content includes interaction with government agencies, report writing, managing human resources, RMS, budgets, performance appraisals, exposure reports and public education. Prerequisite: FOD 202 and fire department affiliation. (SCC)

FOD 204 - Fire Officer IIB Work Based Learning (3 cr)
This course emphasizes maximizing member and unit performance, preparing news releases, conducting fire inspections, determining a fire's point of origin and producing incident operational plans. Prerequisite: FOD 203 and work site authorization agreement. (SCC)

FOD 205 - Fire Investigation (3 cr)
Students learn methods of determining the area of fire origin, fire causes, fire spread and other aspects of fire behavior; recognition of accidental and incendiary fires; securing and preserving evidence of a suspected arson; witness interrogation methods; arson laws and court procedures; court case preparation and testimony; coordination with other investigative agencies; compilation of reports and records; and review of case histories. Prerequisite: Volunteer or career firefighter or permission of program coordinator. (SCC)

FOD 206 - Fire Inspection and Codes (4 cr)
Students study the fire code as it applies to fire prevention inspections at the fire company level. The fire code's relationship to the building Code and other recognized standards are presented. General provisions of the fire code maintenance of exit way, fire protection, flammable and combustible liquids, liquified petroleum gases, places of assembly, and general precautions against fire are emphasized. Discussions of public relations and alternate methods and materials give the course a realistic approach to field operations. Prerequisite: Volunteer or career firefighter or permission of program coordinator. (SCC)

FOD 210 - Incident Management-Multi-Company Operations (3 cr)
This course emphasizes the management of multi-alarm incidents. Content includes expanding incident management systems (IMS), scene safety, managing resources, pre-incident planning, decision making, communications, post-incident analysis and multiple scenarios. Prerequisite: Fire department affiliation. (SCC)

FOD 260 - Career Assessment (2 cr)
The course emphasis is on gathering and documenting career related training and experience in a portfolio that will be assessed for comparable academic credit. Prerequisite: Basic computer skills recommended. Permission of instructor and evidence of employment required and concurrent enrollment in FOD 261. (SCC)

FOD 261 - Career Development (2 cr)
The course emphasis is on using the assessment and credit award from FOD 260 to develop a plan to finish an Associate or Bachelor Degree. Prerequisite: Basic computer skills recommended. Permission of instructor and evidence of employment required and concurrent enrollment in FOD 260. (SCC)

FIRE SCIENCE TECHNOLOGY

FS 100 - Orientation to Fire Science (2 cr)
An introductory class designed to provide students with the history and philosophy of fire science. Content areas to be covered in this course also include career orientation, employment requirements and fire personnel responsibilities. (SCC)

FS 105 - Principles of Hydraulics (4 cr)
Students are introduced to the fundamentals of fluids in motion and at rest and their applications to the fire service industry. (SCC)

FS 152 - Building Construction (3 cr)
This course covers the classifications of buildings and what constitutes a rated building. Fire and life safety devices required by the U.B.C. are emphasized. The installation of fire assemblies and appliances are introduced. (SCC)

FS 160 - Fire Tactics (3 cr)
This course introduces students to the basic principles of fire tactics and strategies, and provides students with the skills needed to safely and effectively supervise company-level fire ground operations. Principles of size-up and fire spread, hazard identification, fire attack methodology based on the principles of RECEO-VS, supervision and coordination of assigned resources, and fire ground safety are emphasized. (SCC)

FS 170 - Hazardous Materials I (3 cr)
Students study hazardous materials regulations; terminology; identification systems, shipping and storage containers; incident command systems and basic analysis; information resources; chemical protective clothing, and decontamination. (SCC)

FS 177 - Wildland Fire Operations (3 cr)
This course is designed to prepare the student to fight wildland fires. It includes information on safety practices and initial control strategies, and meets the NWCG requirements for S-130/S-190 and L-130. Prerequisite: Volunteer or career firefighter or acceptance by special permission. (SCC)

FS 211 - Introduction to Fire Science (4 cr)
This course introduces students to the basics of firefighting. Topics include safety, fire behavior, personal protective equipment, portable extinguishers, search and rescue, ropes and knots, hoses, ladders, and emergency vehicle accident prevention. Prerequisite: Successful completion of first year general education requirements and concurrent enrollment in FS 212. (SCC)

FS 212 - Fire Science Applications I (6 cr)
Practical applications using firefighting equipment including personal protective equipment, hoses, ladders and extinguishers are emphasized. Emergency vehicle accident prevention methods also are included. (SCC)

FS 221 - Intermediate Fire Science (4 cr)
This course provides a continuation of the concepts introduced in FS 211 with emphasis on the incident command system, forcible entry, ventilation, salvage, overhaul, fire cause determination, communications and water supply. Prerequisite: Successful completion of FS 211, 212 and concurrent enrollment in FS 222. (SCC)

FS 222 - Fire Science Applications II (6 cr)
Practical applications using the incident command system are emphasized in this course. Practical skills include forcible entry, ventilation, salvage, overhaul, fire cause determination, communications and water supply. Prerequisite: Successful completion of FS 211, 212 and concurrent enrollment in FS 221. (SCC)

FS 231 - Advanced Fire Science (4 cr)
This course provides a continuation of the concepts introduced in FS 211 and 221 with emphasis on fire streams, fire suppression, heavy-duty rescue, vehicle fires, wildland fires and fire prevention. Prerequisite: Successful completion of FS 221, 222 and concurrent enrollment in FS 232. (SCC)

FS 232 - Fire Science Applications III (6 cr)
Practical lab applications utilizing skills from FS 212 and 222 are emphasized. Fire streams, fire suppression techniques, heavy-duty rescue, vehicle fires, wildland fires and fire prevention also are emphasized. Prerequisite: Successful completion of FS 221, 222 and concurrent enrollment in FS 231. (SCC)

FS 233 - Professional Development (2 cr)
This course explores a variety of self-development activities that assist students in gaining employment after graduation. These activities include practice civil service examinations, both written and oral, in addition to exercises in professional demeanor as appropriate to fire fighters. This course is required in one of the student's last two quarters prior to graduation. (SCC)

FS 266 - Cooperative Education Seminar (1-2 cr)
For course description, see Cooperative Education. (SCC)

FS 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SCC)

FRENCH

FRCH& 121 - French I (5 cr)
FRCH& 121, 122 and 123 are parts of a beginning series designed to develop skills in reading, writing, speaking and listening to a basic level of proficiency. It enables the student to communicate basic ideas in French and understand the cultural context of the language through the study of the French-speaking regions around the world. FRCH& 121 is taught through an experiential methodology that entails the exclusive use of French in the classroom, emphasis on oral and written communicative skills, interpersonal exchange of ideas, interactive presentation of grammar, a multimedia approach and daily practice outside of class. Language laboratory work is an integral part of this language series. (SCC, SFCC)

FRCH& 122 - French II (5 cr)
FRCH& 121, 122 and 123 are parts of a beginning series designed to develop skills in reading, writing, speaking and listening to a basic level of proficiency. It enables the student to communicate basic ideas in French and understand the cultural context of the language through the study of the French-speaking regions around the world. FRCH& 121 is taught through an experiential methodology that entails the exclusive use of French in the classroom, emphasis on oral and written communicative skills, interpersonal exchange of ideas, interactive presentation of grammar, a multimedia approach and daily practice outside of class. Language laboratory work is an integral part of this language series. Prerequisite: FRCH& 121 or one year of high school French or permission of instructor. (SCC, SFCC)

FRCH& 123 - French III (5 cr)
FRCH& 121, 122 and 123 are parts of a beginning series designed to develop skills in reading, writing, speaking and listening to a basic level of proficiency. It enables the student to communicate basic ideas in French and understand the cultural context of the language through the study of the French-speaking regions around the world. FRCH& 121 is taught through an experiential methodology that entails the exclusive use of French in the classroom, emphasis on oral and written communicative skills, interpersonal exchange of ideas, interactive presentation of grammar, a multimedia approach and daily practice outside of class. Language laboratory work is an integral part of this language series. Prerequisite: FRCH& 122 or one and one-half years of high school French or permission of instructor. (SCC, SFCC)

FRCH& 221 - French IV (5 cr)
FRCH& 221, 222 and 223 are parts of an intensive intermediate-level language series designed to answer the needs of students coming from varying backgrounds. These students are studying French for a multitude of reasons and hope to review the grammar taught in our 100-level classes. FRCH& 221, 222 and 223 aim at the further development of the students' four skills (reading, writing, listening and speaking) up to an intermediate level of proficiency. Emphasis is on reviewing grammar in order to express oneself in writing or in conversations, and experiencing the language in its cultural contexts through the study of the French-speaking regions around the world. FRCH& 221, 222 and 223 are taught through an experiential methodology, which entails exclusive use of French in the classroom, emphasis on communicative skills, interactive and contextualized use of grammar through textbook materials, on-line exercises, audio-tapes, magazines and various other media, and daily practice outside of class. Prerequisite: FRCH& 123 or permission of instructor. (SFCC)

FRCH& 222 - French V (5 cr)
FRCH& 221, 222 and 223 are parts of an intensive intermediate-level language series designed to answer the needs of students coming from varying backgrounds. These students are studying French for a multitude of reasons and hope to review the grammar taught in our 100-level classes. FRCH& 221, 222 and 223 aim at the further development of the students' four skills (reading, writing, listening and speaking) up to an intermediate level of proficiency. Emphasis is on reviewing grammar in order to express oneself in writing or in conversations, and experiencing the language in its cultural contexts through the study of the French-speaking regions around the world. FRCH& 221, 222 and 223 are taught through an experiential methodology, which entails exclusive use of French in the classroom, emphasis on communicative skills, interactive and contextualized use of grammar through textbook materials, on-line exercises, audio-tapes, magazines and various other media, and daily practice outside of class. Prerequisite: FRCH& 221 or permission of instructor. (SFCC)

FRCH& 223 - French VI (5 cr)
FRCH& 221, 222 and 223 are parts of an intensive intermediate-level language series designed to answer the needs of students coming from varying backgrounds. These students are studying French for a multitude of reasons and hope to review the grammar taught in our 100-level classes. FRCH& 221, 222 and 223 aim at the further development of the students' four skills (reading, writing, listening and speaking) up to an intermediate level of proficiency. Emphasis is on reviewing grammar in order to express oneself in writing or in conversations, and experiencing the language in its cultural contexts through the study of the French-speaking regions around the world. FRCH& 221, 222 and 223 are taught through an experiential methodology, which entails exclusive use of French in the classroom, emphasis on communicative skills, interactive and contextualized use of grammar through textbook materials, on-line exercises, audio-tapes, magazines and various other media, and daily practice outside of class. Prerequisite: FRCH& 222 or permission of instructor. (SFCC)

FRCH 241 - Conversation and Culture (2 cr)
FRCH 241 is designed for students who wish to develop their French conversational skills up to an intermediate level, through class discussions and short oral presentations. At the first meeting, student participants will have the opportunity to design the course topic discussions based on, but not limited to, the following topics: Diversity of France, politics, economics, European Union, currency, family values, stereotypes, history, geography, media, French cultural and literary traditions, and current events. Use of the ILC is recommended. Prerequisite: FRCH& 123 or permission of instructor. (SFCC)

GENERAL STUDIES

GENST 101 - Success in Math and Placement (2 cr)
Learning strategies for studying, preparing for and taking the college MMT (My Math Test) will be applied in a supportive atmosphere with peer tutors and campus resources available. This 2 credit course provides students with opportunity to prepare for successful Math Placement testing in a group learning/lab setting. Students will apply basic computer-based test preparation and test-taking skills, review fundamental math skills, address ways to overcome Math anxiety, and develop tools and strategies to be successful in college Math courses. (SFCC)

GENST 105 - Prior Learning Portfolio Development (2 cr)
A course designed to instruct students in methods utilized to summarize and document prior learning experiences. Students describe skills, competencies and areas of knowledge that may have been attained outside of a traditional classroom environment. (SCC, SFCC)

GENST 106 - College Success (2-3 cr)
This course provides an opportunity for students to learn about services and strategies to help them become successful college students. The overall goal is to increase the likelihood that the students' year(s) at SFCC/SCC is successful, both academically and socially. It is designed for entering students and other students interested in becoming more effective college students. (SCC, SFCC)

GENST 108 - Learning for the 21st Century (5 cr)
Emphasis is on building the skills and techniques for successful life-long learning and identifying personal learning styles and strengths that facilitate learning in an on-line environment. Through a quarter-long research project on a global issue, participants examine various strategies for locating, evaluating and applying information resources in the research process with attention to information policy issues like censorship and freedom of information. (SCC, SFCC)

GENST 111 - Gateway to College (2 cr)
Gateway to College -- 2 Credit Hours. This course is designated to help students develop and reinforce the skills, abilities, and behaviors that promote academic and personal success. It is required for entering Gateway to College students interested in transitioning effectively to their new college environment. Prerequisite: Enrollment in the Gateway to College program. (SFCC)

GENST 112 - Introduction to Online Learning (1 cr)
This course introduces the CCS eLearning classroom to students with the goal of creating successful online learners. This course provides an introduction to eLearning expectations; eLearning basic skills and strategies; and eLearning resources which support student success. This course is designed for entering students and other students interested in becoming more effective online learners. (SFCC, SCC)

GENST 114 - Thriving In College (2 cr)
Learn about college life! This course for new college students teaches success strategies by helping students to become familiar with the campus, to discover resources available to assist them in their collegiate journey, and to connect them with their peers. Students will learn how to interact effectively with instructors and will gain a solid foundation in study skills that are crucial for academic achievement. The class is intended to be taken concurrently with a 5-credit content area course. (SFCC)

GENST 154 - Introduction to Service Learning (2-5 cr)
This class combines an academic study of the foundations of the contemporary movement toward service learning with direct experience of community outreach. By building on learning through service to an area of local community need, students explore their own assumptions, values, questions, and beliefs regarding some of the key issues in social philosophy and ethics and democratic citizenship. Through students' community service experience, lecture, reading and research, students become familiar with individual and group aspects of human behavior. (SFCC)

GENST 204 - Tutoring Writing (2 cr)
This course prepares students for effective work in tutoring a wide array of writers and writing. Students will develop a solid foundation for working with student writers and acquire a rich understanding of the theories, practices, and challenges of tutoring writing. Prerequisite: ENGL& 101 with a grade point of 3.5 or higher or permission of instructor. (SFCC, SCC)

GENST 291 - Educational Tour (1-5 cr)
An educational tour sponsored by one or more departments offering students an opportunity to explore a particular subject off campus. The purpose of the trip is to broaden a student's understanding of material covered in the classroom or to expose the student to cultural experiences not available on campus. The tours may be to either domestic or foreign locations. (SFCC)

GEOGRAPHY

GEOG 101 - Introduction to Geography (5 cr)
An introduction to human and physical geography including mankind's reciprocal relationship with environmental concerns, world place geography, geomorphology and economic geography. Optional field trips included to assist students in better understanding course content. (SCC, SFCC)

GEOG 230 - World Regional Geography (5 cr)
A survey of world geographical relationships. Includes an examination of the distribution of selected physical and human phenomenon and the processes responsible for the distributions and varying interrelationships from place to place between humans and their environment.
(SCC, SFCC)

GEOG 260 - The Violent Earth (5 cr)
Students are offered a descriptive and interpretive examination of the influence and relationship of man with the natural hazards of the earth, including identification, analysis, distribution and geographic patterning of the following: Hurricanes, water spouts, disease, tornadoes, wind shear, tsunamis, tides, river tides, volcanoes, glaciers, earthquakes, quick clay (spontaneous liquification), landslides, floods, droughts and lightning. (SCC, SFCC)

GEOLOGY

GEOL& 100 - Survey of Earth Science (5 cr)
This course provides a survey of Earth including topics on rock and mineral characteristics, natural hazards, surface and groundwater environments, marine and continental environments, resources, and landforms. This is a non-lab physical science course, and credit will not be granted for both GEOL& 100 and GEOL& 101. (SCC, SFCC)

GEOL& 101 - Intro Physical Geology (5 cr)
An introductory course in geology designed to acquaint beginning geology students with the importance of geology and minerals in their everyday lives through the study of the general concepts of geology, plate tectonics, earthquakes, mountain building, formation of continents, materials on earth, erosional processes and patterns, underground water, glaciation, and shoreline formations. Laboratory covers mineral and rock identification and map interpretation. Credit will not be granted for both GEOL& 100 and GEOL& 101. (SCC, SFCC)

GEOL 116 - Environmental Geology (5 cr)
An introduction to environmental geology including geologic processes and land forms. An emphasis on practical applications using case history studies involving engineering and environmental problems as they relate to geologic settings. (SCC, SFCC)

GEOL 201 - The Earth Through Time (5 cr)
The course is an overview of earth's geologic history through time. Topics of discussion include the geologic formation of earth and its rock types, as well as the evolution of lifeforms through time. The effects of plate tectonics on paleoclimates, paleogeographies, and evolutionary patterns for the major continental and marine ecosystems are considered. Meets A.A. degree lab science requirement. Prerequisite: GEOL& 101, 100 or 1 year of high school science. (SCC)

GEOL 210 - Pacific Northwest Geology (5 cr)
An overview of the geologic history of the Pacific Northwest. Emphasis is on the plate tectonic relationships between the various geologic regions of the Northwest via hands-on interpretations of rocks, geologic maps and field observations. Prerequisite: GEOL& 101 (formerly GEOL 101) or permission of instructor. (SCC)

GERONTOLOGY PARAPROFESSIONAL

HSGER 101 - Introduction to Social Gerontology (5 cr)
Introduction to the theories of ageism created and institutionalized by many forces--historical, social, cultural and psychological. Emphasis on the study, research and practicalities of serving the needs of the elderly in contemporary American society. (SFCC)

HSGER 110 - Leisure, Learning, and Living (5 cr)
General data and observations as philosophy, trends and research in the leisure field; directed theoretical analysis of these studies as they pertain to the aging person; and contact with observations, progress visits, interviews and reports are addressed in this course. (SFCC)

HSGER 115 - Multi-Cultural Perspectives in Human Services (5 cr)
This course explores the experiences of minority cultures within the context of human services. Emphasis on investigating how each of the subcultures imposes its own distinctive normative structure on the individual, and the implications of cultural background on the planning and delivery of human services is addressed. (SFCC)

HSGER 201 - Aging and Personality (5 cr)
Personality theory and concepts of adjustment in terms of normal and pathological aging, and an overview of rehabilitative efforts with the aged. (SFCC)

HSGER 210 - Aging and Mental Health (5 cr)
An introduction to the theory and skills of aging and mental health as related to the aging process. As the aging process develops, several environmental changes occur that bring about physiological and psychological changes in some elderly persons. Students study the biological determinants, the speed of normal behavioral changes with age, the awareness of dysfunctions and senile dementia of the Alzheimer's type. (SFCC)

HSGER 221 - Counseling the Aging (5 cr)
Counseling techniques to assist the elderly in preretirement or rehabilitative services. Students may observe counseling activities, provide direct counseling, plan or implement a counseling service, or evaluate an existing service, depending on their level of skill. (SFCC)

HSGER 250 - Death, Loss and Grief (5 cr)
Designed to better understand death in its relationship to life through the exploration of what others have written about death and by examining one's own feelings about death and dying. We discuss and explore the death taboo; loss, grief, mourning, pain and the impact of the dying process; the helping professions; and the family and the dying person. (SFCC)

GOVERNMENT, STUDENT

GOVT 191 - Student Senate (1 cr)
The responsibilities of the decision-making process of student government with emphasis on human relations, group interaction, developing the human potential of the individual, and improving communication skills and decision-making abilities. Open to all students interested in the student government process. (SCC, SFCC)

GOVT 192 - Student Senate (1 cr)
The responsibilities of the decision-making process of student government with emphasis on human relations, group interaction, developing the human potential of the individual, and improving communication skills and decision-making abilities. Open to all students interested in the student government process. (SFCC)

GOVT 193 - Student Senate (1 cr)
The responsibilities of the decision-making process of student government with emphasis on human relations, group interaction, developing the human potential of the individual, and improving communication skills and decision-making abilities. Open to all students interested in the student government process. (SCC, SFCC)

GOVT 195 - Activities Board (1 cr)
Responsibilities of program management through representative student government; emphasis on program development for the college, group interaction, communication skills and decision-making abilities. For members of student clubs and organizations and students interested in program development and scheduling management. (SCC, SFCC)

GOVT 196 - Activities Board (1 cr)
Responsibilities of program management through representative student government; emphasis on program development for the college, group interaction, communication skills and decision-making abilities. For members of student clubs and organizations and students interested in program development and scheduling management. (SFCC)

GOVT 197 - Activities Board (1 cr)
Responsibilities of program management through representative student government; emphasis on program development for the college, group interaction, communication skills and decision-making abilities. For members of student clubs and organizations and students interested in program development and scheduling management. (SCC, SFCC)

GRAPHIC DESIGN

GRDSN 101 - Design Process I (4 cr)
This is a basic introduction course presenting the fundamentals of design, visual communication and conceptualization. The primary focus is on typography, color and composition. Activities focus on research and problem solving with an emphasis on idea generation and refinement using thumbnail and rough layouts. Students apply fundamental design and communication skills to projects in GRDSN 103. Prerequisite: Compass Reading 80 or higher; ASSET Reading 40 or higher; or permission of the instructor. (SFCC)

GRDSN 102 - Design Technology I (3 cr)
This course is a basic introduction to the technology platform used in the design profession. Emphasis is on the operating system(s), computer operations, file types, format and management. Students learn fundamental software skills necessary to complete design projects. Content includes operation of page layout, drawing and scanning software applications. Prerequisite: Assessment reading score on the Compass of 80 or above or an ASSET reading score of 40 or above and concurrent enrollment in GRDSN 101 or permission of instructor. (SFCC)

GRDSN 105 - Drawing for Graphic Designers (3 cr)
This course offers students an introduction to drawing as a graphic designer. Students learn to draw basic forms for thumbnails and roughs that can be applied to other graphic design courses. Techniques and tools for drawing shape, value, plane and volume are explored through gesture, contour and other drawing styles. Composition and drawing type are an integral part of the course. (SFCC)

GRDSN 109 - History of Design (5 cr)
This course focuses on major design movements as they relate to visual communication. Beginning with the invention of writing and continuing to present- day key ideas, social/political/cultural developments and technologies are examined. Through observations and comparisons, the course illustrates the relationships between various design disciplines. This course requires research, writing and presentation of exploring visual communications role in society and popular culture. Prerequisite: A COMPASS reading assessment score of 80 or above or an ASSET reading score of 40 or above or permission of instructor. (SFCC)

GRDSN 111 - Design Process II (4 cr)
This course expands on the fundamentals of design, visual communication and conceptualization introduced in GRDSN 101. Students demonstrate skills at a higher level of performance. In addition to typography, color and composition, students are engaged in problem-solving and critical thinking activities in order to solve fundamental design problems. Prerequisite: GRDSN 101, 102 or permission of instructor. (SFCC)

GRDSN 112 - Design Technology II (3 cr)
This intermediate-level course focuses on the technology platform used in the design profession. Emphasis is on computer graphics software applications, type formatting and appropriate file construction. Students learn fundamental and intermediate software skills necessary to complete projects in GRDSN 113. In addition to page layout, drawing and software applications, students focus on fundamental photo manipulation and three-dimensional design software. Prerequisite: GRDSN 102 or permission of instructor. (SFCC)

GRDSN 121 - Design Process III (4 cr)
In this course, students apply the design process to the print, web and multimedia industries. Students engage in intermediate-level design, communication, problem-solving and conceptualization activities. In addition to exploring strategies for communicating more complex information, students are engaged in creating concepts which communicate ideas with clarity, depth and uniqueness. Prerequisite: GRDSN 111 and concurrent enrollment in GRDSN 122. (SFCC)

GRDSN 122 - Design Technology III (3 cr)
This course is a survey of design technology as it applies to the production of design work in print, web and multimedia. Emphasis is on file construction, file formats and software used in 2-D, 3-D and animated graphics. Students are introduced to the Postscript imaging process and HTML as well as web and multimedia authoring software. Prerequisite: GRDSN 112 and concurrent enrollment in GRDSN 121. (SFCC)

GRDSN 125 - Computer Drawing (3 cr)
Students learn to execute drawings using vector and raster imaging often found as illustrations in print and web design. Software programs are used to show value, color and texture of subject matter. Use of an electronic pen tool is explored in place of the mouse to mimic traditional tools that show line quality and shading. In addition, students use a digital camera to produce photographs for compositions and learn how to show perspective through the software programs available. Prerequisite: GRDSN 105 or permission of instructor. (SFCC)

GRDSN 142 - Print Production (3 cr)
This is an intermediate course in computer graphics and printing technology. Projects involve using industry standard computer applications to create and edit pixel and vector images, create page layouts, and prepare files for printing. Emphasized are color management, printing technology, file preparation for multiple color printing, Acrobat PDF workflow, raster image processing, cross-application data exchange and file troubleshooting. Prerequisite: GRDSN 122 or permission of instructor. (SFCC)

GRDSN 151 - Typography and Layout (3 cr)
This course introduces students to the history, nomenclature and practical application of typography. Projects range from simple typographic compositions to complex multi-page documents in print and digital media. In addition to conventional type formatting, students will explore creative solutions using type as expressive visual form. Prerequisite: GRDSN 101, 102 or permission of instructor. (SFCC)

GRDSN 156 - Illustrator I (2 cr)
This is a self-paced, competency-based, introductory course to illustrator software for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tools and menu commands to trace, draw and manipulate Bezier curves, and create illustrations. Students manipulate graphics and typographic forms to create final drawing compositions. Students also control and manipulate visual attributes and work with several color models to create, mix, and apply colors and tints. (SFCC)

GRDSN 158 - PhotoShop I (2 cr)
This is a self-paced competency-based introductory course to PhotoShop software for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tools and menu commands to evaluate and control color characteristics of digitized photographic images. Students also combine and manipulate images to create unique photo composites, as well as work with several color models and a variety of file formats. (SFCC)

GRDSN 163 - InDesign I (2 cr)
This self-paced competency based hands-on computer course provides students with knowledge and experience with the InDesign page layout program. The course includes working with documents, text, styles, tables, graphic elements, and color. (SFCC)

GRDSN 164 - Illustrator II (2 cr)
This is a self-paced, competency-based, advanced course for Adobe Illustrator software for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tools and menu commands. They use advanced text techniques, selection techniques and transformation techniques to create vector drawings. They also learn to prepare graphics for the Web. (SFCC)

GRDSN 166 - PhotoShop II (2 cr)
This course offers self-paced, competency-based, advanced instruction in PhotoShop software for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tools and menu commands to select color mode, correct color, apply masks and channels, create complex layers, retouch images, create patterns and textures, and add special effects. (SFCC)

GRDSN 168 - InDesign II (2 cr)
This self-paced competency based hands-on computer course provides students with knowledge and experience with the InDesign page layout program. The course includes working with long documents, multiple documents, advanced typesetting, managing output, PDF, and HTML. (SFCC)

GRDSN 171 - Animate 1 (2 cr)
This course offers a self-paced, competency-based introduction to Animate 1 software for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tools and menu commands to produce high impact, vector-based web sites. Students use Animate 1 to create animations and interfaces, adding sound, motions and interactivity. (SFCC)

GRDSN 172 - Dreamweaver (2 cr)
This course offers a self-paced, competency-based introduction to Dreamweaver software for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tools and menu commands to create exciting web sites using HTML. Students also use design tools, and import and edit images and documents. (SFCC)

GRDSN 173 - Flash II (2 cr)
This is a self-paced competency-based course in Flash software for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tools and menu commands to create web animations that include sound and video. Students learn to apply behaviors to their animations. They also learn to use Flash with other applications such as Freehand, Photoshop and Fireworks. (SFCC)

GRDSN 174 - Dreamweaver II (2 cr)
This is a self-paced competency-based course in Dreamweaver software for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tools and menu commands to create cascading style sheets, JavaScript behaviors and animations. Students learn to manage a live web site. (SFCC)

GRDSN 175 - After Effects (2 cr)
This is a self-paced competency-based course in After Effects software for Macintosh computers. Through reference materials, tutorial exercises and projects, students use software tools and menu commands to create animations that include sound and optimize motion graphics for film, video and the web. Students produce and apply behaviors to their animations, special effects and 3D layers. Students also use After Effects with applications such as Illustrator, Photoshop and Fireworks. (SFCC)

GRDSN 181 - Web Development I (4 cr)
Students are introduced to design and construction of web pages using HTML (Hypertext Markup Language), CSS (Cascading Style Sheets) and JavaScript. Students learn standards-based web development. Cascading style sheets are used in designing and structuring effective and accessible web pages for browsers and mobile devices. (SFCC)

GRDSN 182 - Web Development II (3 cr)
This intermediate course builds off of the Web Development I course. Students apply server / client side programming to create dynamic web pages. Students design and build web / mobile web projects using JavaScript and other scripting languages. Prerequisite: GRDSN 181 or permission of instructor. (SFCC)

GRDSN 201 - Design Process IV (4 cr)
In this course, students compare the design process as it applies to a wide range of computer-generated imagery. Students engage in intermediate-level design, communication, problem-solving and conceptualizing activities. Prerequisite: GRDSN 121 and concurrent enrollment in GRDSN 202 or permission of instructor. (SFCC)

GRDSN 202 - Design Technology IV (3 cr)
Students explore the production aspects of realistic graphic design projects and the technical issues that develop within their own designs. In conjunction with GRDSN 203, students develop production techniques and solutions to various media. Prerequisite: GRDSN 122 and concurrent enrollment in GRDSN 201 or permission of instructor. (SFCC)

GRDSN 211 - Design Process V (4 cr)
Working with real-world design problems, students apply their expertise in developing design solutions for various media. Emphasis is on organizing information, typography and imagery to create clear, creative design solutions. Prerequisite: GRDSN 201 or permission of instructor. (SFCC)

GRDSN 212 - Design Technology V (3 cr)
A variety of technical and material processes driven by projects developed in GRDSN 213 are explored. This course strengthens the students' abilities to problem solve and develop technical solutions to various media production applications. Students use a variety of computer software applications which are determined by appropriate media delivery systems. Prerequisite: GRDSN 202 or permission of instructor. (SFCC)

GRDSN 221 - Design Process VI (4 cr)
This course prepares students for entrance into the workforce. Students self-assess projects and identify weak points in their design projects in order to be more competitive when entering the job market. Students redesign work to bring it up to professional portfolio standards. In addition, students create new portfolio projects. Prerequisite: GRDSN 212 or permission of instructor. (SFCC)

GRDSN 223 - Design Portfolio (3 cr)
This course prepares student for entry-level employability. Students create a resume, cover letter, personal brand and a professional portfolio of their best work. Additionally, students create an multi-media marketing campaign, promoting their qualifications to design industry employers. Prerequisite: GRDSN 211 or permission of instructor. (SFCC)

GRDSN 235 - Multimedia I (3 cr)
Students learn to create interactive media at an introductory level. Students learn design and technical skills necessary to create and combine text, graphics, video and audio for digital distribution. Prerequisite: GRDSN 121 or permission of instructor. (SFCC)

GRDSN 236 - Multimedia II (3 cr)
Students learn to create interactive media at an intermediate level. Students learn design and technical skills necessary to create and combine text, graphics, video and audio for digital distribution. Prerequisite: GRDSN 235 or permission of instructor. (SFCC)

GRDSN 237 - Multimedia III (3 cr)
Students learn to create interactive media at an advanced level. Students learn design and technical skills necessary to create and combine text, graphics, video and audio for digital distribution. Prerequisite: GRDSN 236 or permission of instructor. (SFCC)

GRDSN 266 - Cooperative Education Seminar (1-2 cr)
For course description, see Cooperative Education. (SFCC)

GRDSN 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SFCC)

GUIDANCE

GUID 100 - College Orientation (1-2 cr)
This course is designed to assist the incoming student make the transition to college life. It provides a number of tools necessary to succeed in college-resources, processes and procedures, career exploration and information, assertiveness training, and college survival skills-as well as explain the many services and activities open to all students. Grading option: Pass/fail. (SCC, SFCC)

GUID 101 - Career Planning (2-5 cr)
This course incorporates aptitude, interest, personality and motivational surveys with classroom activities to promote self-awareness. Analysis of the organization of the working world and use of research materials is combined with decision-making skills to aid the student in the selection of a career. Course content varies depending on the number of credits chosen. (SCC, SFCC)

GUID 102 - Strategies for Success (2 cr)
Students learn specific skills to increase their success in college and help them achieve their academic and professional goals. Students create a “tool kit” incorporating learning techniques, study skills, test taking strategies, time management, campus resources, and communication skills among others. Students also develop an educational plan to assist them in selecting and completing a program of study at the community college. (SCC)

HEALTH

HLTH 101 - Health and Wellness (3 cr)
Course encompasses a total wellness concept of one's physical, mental and emotional well-being. Students examine major health issues of contemporary society. Students also learn to make responsible lifestyle decisions that directly affect their quality of life and attainment of well-being. (SCC, SFCC)

HLTH 102 - Health Enhancement (5 cr)
Health Enhancement emphasizes the importance of knowledge, attitudes, and practices relating to a healthy lifestyle. It is a course designed to expose students to a broad range of issues and information relating to the various aspects of personal health, which include the physical, social, emotional, intellectual, spiritual, and environmental aspects. Topics of exploration include, but are not limited to: nutrition, physical fitness, recognition of stress and weight management. (SFCC, SCC)

HLTH 104 - Stress Management (3 cr)
Students learn techniques and strategies to manage and evaluate stress. Consequences of stress to physical and mental health are emphasized. Techniques of bio-feedback and relaxation responses are covered, as well as wellness lifestyle development. General applications for physiological arousal and behavior-change interventions are covered. (SCC, SFCC)

HLTH 120 - Professional Technical First Aid (1-5 cr)
This course will cover a wide range of First Aid subjects to meet job requirements in an ever changing work environment. The course will cover CPR for the adult, child and infant (mouth to mouth, mouth to nose, and compression only CPR), rescue breathing, choking hazards (anatomical and mechanical), automated external defibrillators (V-fib and V-tach), severe bleeding (avulsions, punctures, lacerations and abrasions), shock (cardiogenic, hypovolemic, etc.) burns (thermal, chemical, electrical and radiant), heat exhaustion, heat stroke, hypothermia and frostbite, strains, sprains, fractures (open and closed), dislocations, and poisoning. The students will leave this course with a nationally recognized First Aid and CPR card (i.e., American Red Cross, American Heart Association or National Safety Council) valid in all 50 states and allowing for an easy recertification process. (SCC)

HLTH 174 - First Aid (3 cr)
Principles, theory, and skills of standard cpr/first aid and safety, which prepare students to make appropriate decisions regarding cpr/first aid care and to act on those decisions. Students will learn to recognize emergencies, follow the emergency action steps, and provide care for injuries or sudden illnesses until professional medical help arrives. This course offers numerous options for certification through American Heart Association. The following certifications are possibly attained in this course: BLS healthcare provider, heartsaver adult, child and infant cpr/aed, and heartsaver first aid. Cards are available upon successful completion of the on-ground course. The online HLTH 174 class does not offer cards. (SCC, SFCC)

HLTH 270 - Nutrition for Fitness (3 cr)
This course provides students with a working knowledge of prudent nutritional practices and focuses on issues of concern to individuals who are active in physical fitness programs. In addition to basic nutritional information, the course covers topics with special applications to the fitness field, such as the nutritional requirements of different activities, planning training diets and pregame meals. The effects of ergogenic foods on performance, fluid and electrolyte balance also are covered. (SCC, SFCC)

HEALTH EDUCATION

HED 103 - Steps to Success in Health Careers (4 cr)
This course provides students with a key to understanding the necessary components for success in a health career introducing various options available with emphasis on necessary abilities to assure success in the education aspects of the profession. Strategies to build professional attitudes, self esteem, ethical behavior and communications skills are presented. (SCC)

HED 104 - Medical Terminology and Anatomy (5 cr)
Students are introduced to the unique language of medicine emphasizing basic medical word structure and commonly used clinical terms. An overview of normal anatomy and anatomic terms is accomplished prior to a study of common diseases and disorders of the human body with a system-by-system approach. (SCC)

HED 105 - Medical Terminology and Anatomy (5 cr)
This course emphasizes the unique language of medicine, normal anatomy and function, and disease and disorders of the body with a system-by-system approach. Prerequisite: HED 104 or permission of instructor. (SCC)

HED 106 - Disease Processes (5 cr)
Students study common diseases and conditions including prevention etiology, signs and symptoms, diagnostic and treatment modalities, prognoses, and the use of medical references for research and verification. Prerequisite: HED 104 and 105 or permission of instructor. (SCC)

HED 108 - Human Anatomy (5 cr)
Students study the structure of the human body systems: Integumentary, special senses, skeletal, muscular, respiratory, hemopoietic, cardiovascular, lymphatic, digestive, urinary, reproductive, endocrine and nervous systems. (SCC)

HED 109 - Human Physiology and Disease (5 cr)
Students study functions, related conditions and diseases of body systems. Prerequisite: HED 108 or permission of instructor. (SCC)

HED 121 - Cultural Diversity in Health Care (1 cr)
This course provides a foundation for applications of cultural concepts in the health care setting. Considerations are given to the impact of biopsychosocial, ethical, legal, spiritual and cultural influences on the need to promote, maintain and restore health of the client/family unit. Prerequisite: Permission of instructor or concurrent enrollment in a health care program. (SCC)

HED 125 - Medical Terminology (5 cr)
This course introduces the roots, prefixes and suffixes comprising the structure of medical terms associated with all body systems with emphasis on medical eponyms, abbreviations and the correct spelling of all terms. (SCC)

HED 126 - Introduction to Study of Disease (5 cr)
This course introduces the concepts associated to the cause of disease, inflammation and repair, burns, infection, genetics, organs of special sense and neoplasia. Diagnostic tests and procedures related to the identification of the disease process are included. Prerequisite: BIOL& 241, 242 and HED 125 or HED 108. (SCC)

HED 129 - Pathophysiology (5 cr)
Students study various disease causing processes exerting an effect on normal physiological function of musculoskeletal, respiratory, circulatory, digestive, urinary and nervous systems; neoplasia and immunology. Diagnostic tests and procedures utilized for these pathophysiological problems are presented, and appropriate treatment is discussed. (SCC)

HED 145 - Pharmacology (3 cr)
Drug classifications, apothecary and metric systems of measurement, medications by brand name and generic terms, and use of PDR and hospital formularies are addressed in this course. (SCC)

HEALTH INFORMATION MANAGEMENT

HIM 103 - HIM Theory and Practice (5 cr)
Students are introduced to the health information management field, history of healthcare, health professions, medical field, health records, and health record personnel. Students will learn facility organization, regulatory agencies, and the roles and function of health information personnel. Students will be introduced and have hands on experience with quantitative and qualitative analysis of records according to standards. Acute care hospital-based systems and the role of admission services is in initiation of records are addressed. Application of computer systems in a database, analysis of record content and record management are presented. (SCC)

HIM 105 - Legal Concepts in Health (3 cr)
This interdisciplinary health records course emphasizes the health record as a legal document. Confidential communication policies and procedures, release of information, consent and state and federal law pertaining to health are presented. Forms of liability, preparation of records for court responses and to subpoenas are emphasized. Students research laws, current and proposed health legislation, and contemporary legal issues. (SCC)

HIM 120 - Medical Assistant Coding and Reimbursement (3-5 cr)
Medical insurance terminology and billing procedures are covered in this course. Students learn to use the CPT and ICD-9-CM for basic ambulatory care setting coding needs. Legal and ethical issues regarding insurance billing also are covered. Prerequisite: Successful completion of MA 101, 102, 111, 112 and concurrent enrollment in MA 122, 125. (SCC)

HIM 135 - Comparative Health Records (4 cr)
Record systems in all types of nonacute health care settings are presented including ambulatory care, home health, hospice, mental health and long-term care. Regulatory issues, documentation requirements and information management issues unique to each setting are discussed. Prerequisite: HIM 103. (SCC)

HIM 160 - Computer Application in HIM (5 cr)
Universal terminology associated with computer software and hardware used in the Health Information Management field is introduced in this course. Students will receive a brief overview of Microsoft Word, Excel, and PowerPoint. Students will be introduced to the basics of electronic health records (EHRs), general healthcare computer systems, data retrieval, and other EHR system topics. This course is the first in a two-part series to familiarize the student with basic computing skills that are essential in the healthcare setting. (SCC)

HIM 161 - Health Management Information Systems (3 cr)
This course is a continuation of the concepts introduced in HIM 160. Emphasis is on the use of tasks, steps and domains frequently used in the software programs currently used in the medical industry. Prerequisite: HIM 160. (SCC)

HIM 162 - Electronic Health Records (3 cr)
This course is a continuation of the concepts introduced in HIM 160. Emphasis is on understanding the selection and transition process of the EHR as well as learning specifics involving the governance of the data that is generated by EHRs as well as other clinical information systems. Students will have hands on experience with EHR applications and practice with applying policy to govern data. (SCC)

HIM 167 - Current Issues in HIM (4 cr)
Students are introduced to issues and terminology that are relevant to the Health Information Management field. Prerequisite: Completion of all first-year requirements. (SCC)

HIM 203 - Clinical Preparation (1 cr)
This clinical preparation course provides an opportunity to interact with an HIM professional working in healthcare to learn more about the skills required in medical coding, chart analysis, and basic medical record proficiencies. Students apply interview and research skills to learn about careers in HIM. Students will also prepare for their onsite clinical practicum which comes during the last quarter of the program. They will complete necessary tests and paperwork to satisfy community affiliation agreements. Prerequisite: Second-year Health Information Management students and concurrent enrollment in HIM 212. (SCC)

HIM 209 - Health Data Analysis and Display (3 cr)
Students learn the principles in collection, computation, presentation and analysis of health data by working with simulated applications of data collection principles by data abstracting using computerized health information systems. Presentation and analysis of data using computer applications are addressed. Prerequisite: Completion of all first-year requirements. (SCC)

HIM 211 - Quality Improvement (4 cr)
Students learn principles and procedures pertaining to utilization management, quality assurance and improvement, credentialing and risk management. Knowledge and skills necessary to apply the principles in assessing the quality of patient care are emphasized. Research and simulation are used to acquaint students with quality assurance principles and methods. Selected classification systems are addressed. Prerequisite: Completion of all first-year requirements. (SCC)

HIM 212 - Acute Care Coding (5 cr)
Students study theory and application of the current edition of the ICD (International Classification of Disease) authorized for use in the US. Students code utilizing charts and participate in lab exercises. Assignment of diagnosis-related groups and computerized endcoding and grouping are presented using practical computer applications to perform these tasks. Prerequisite: Completion of BIOL 105, 204, 205. (SCC)

HIM 213 - Clinical Practice (6 cr)
This supervised, clinical practicum provides students experience in area hospitals, skilled nursing facilities and other health care facilities and agencies. Students work under supervision of facility personnel or the instructor and perform all learned skills in an actual clinical setting. Prerequisite: Clinical status: final quarter and concurrent enrollment in HIM 240. (SCC)

HIM 214 - Ambulatory Care Coding (5 cr)
Ambulatory coding systems currently in use are utilized in this course. Health Care Financing Administration rules and procedures are emphasized, incorporating Medicare changes and other third-party payers. Current reimbursement methodologies in ambulatory care are presented. Prerequisite: HED 129, 145 and HIM 103, 212 or permission of instructor. (SCC)

HIM 215 - ICD-10 Procedural Coding (4 cr)
Students are introduced to the ICD-10-PCS coding system for assigning codes to inpatient procedures. Students code utilizing operative reports and participate in lab exercises. Prerequisite: HIM 212 or MSEC 123. (SCC)

HIM 216 - Reimbursement Strategies for HIM Professionals (5 cr)
This course introduces students to a variety of claims processes and procedures, and health care payers. Career roles and responsibilities and employment opportunities also are covered. Prerequisite: Completion of HIM 212, 214, 215. (SCC)

HIM 218 - Advanced Medical Coding (5 cr)
Students practice using ICD-9-CM (International Classification of Diseases, 9th Edition, Clinical Modification), ICD-10-CM/PCS (International Classification of Diseases, 10th Edition, Clinical Modifications/Procedural Coding System, and CPT (Current Procedural Terminology) by coding inpatient and outpatient source documents and charts. Students learn the implications of DRGs (Diagnostic Related Groups) and APCs (Ambulatory Payment Classifications) and their relationship to coding assignment and finances. The content of this course explains the purpose of manual and computer indexes. Theory and practice in coding problem-solving, data quality control and use of the computer encoder are emphasized. Prerequisite: HIM 212, 214, 215. (SCC)

HIM 219 - Healthcare Environment and Professional Skills (5 cr)
This course gives an overview of the healthcare environment and of the leadership, planning, professional, and communication skills that are essential to be successful in this environment. It covers the healthcare systems as a whole including provider, governing, and payment organizations. (SCC)

HIM 220 - Health Technology Environment and Security (5 cr)
This course gives an overview of the healthcare technology environment, various health IT applications, and associated privacy and security policies and compliance. It focuses on health information management systems as well as applications that connect into system, and on the flow and transfer of data throughout the healthcare system. (SCC)

HIM 221 - HIMS Systems Analysis, Implementation and Maintenance (5 cr)
This course gives an overview of the healthcare information management systems lifecycle, including analysis planning and design, selection and acquisition, implementation and management, and testing and evaluation. The focus is on best practices and standards that guide effective implementation and maintenance of information systems to support clinical processes and workflow in healthcare organizations. (SCC)

HIM 240 - HIM Clinical Seminar (4 cr)
In this follow-up seminar of supervised clinical experience, students discuss and report on clinical topics, use of work skills and all aspects of working in the field. Students learn about what to expect in seeking a job, how to act professionally in the HIM field, and human resource topics. Students will be given weekly assignments and mock RHIT exams to prepare them for their certification exam upon graduation. Prerequisite: Completed all HIM program courses and concurrent enrollment in HIM 213, 216. HIM students in their last quarter of the program. (SCC)

HEALTH/FITNESS TECHNICIAN

FMT 106 - Anatomical and Physiological Kinesiology (5 cr)
This course is designed to study the anatomical aspects of the human body, including the skeletal, muscular, mechanical, and functional. Special attention is given to the analysis of movement problems. (SFCC)

FMT 111 - Physiology of Exercise (5 cr)
This course explores the range and ability of the human body. Areas of study include brain-body connections; physiological responses of the lungs and heart to exercise; and effects of drugs, hormones and environment on human performance. The training effects of exercise, fatigue, as well as general fitness brought about by regular exercise. In addition, the acute and chronic adaptations to training at altitude will be explored. (SFCC)

FMT 112 - Special Considerations in Exercise (3 cr)
This course analyzes the physiological and psychological characteristics of older adults, adolescents, children, and pre/post natal individuals as they apply to fitness assessment and exercise programming. It also examines the impact of exercise on various conditions such as diabetes, cardiovascular and pulmonary disease, obesity, and musculoskeletal disease. In addition to lecture, lab time is designed to develop "hands-on" knowledge of fitness assessment, exercise technique and related modifications. Prerequisite: FMT 204. (SFCC)

FMT 115 - Leadership Dynamics (3 cr)
This course is designed to study concepts involved in developing leadership traits: When leaders are at their best, what followers expect, and how to enlist others and foster collaboration. In addition, this course studies communication and how it applies to leadership and job-related skills. (SFCC)

FMT 119 - Principles of Strength Training (5 cr)
This course explores the scientific principles involved with increasing human strength. The skeletal muscles and joints are studied. All forms of isotonic and isometric exercise are taught. Effects of nutrition, fatigue and exercise on the muscular system is analyzed. (SFCC)

FMT 204 - Health Appraisal and Exercise Prescription (5 cr)
This course incorporates current fitness industry standards with regards to appropriate assessment techniques, i.e., participant screening, health appraisal, health history, physical assessments, determination of risk factors and lifestyle patterns. Following the comprehensive health/fitness appraisal, techniques for exercise prescription and programming are developed. Components of exercise prescription are incorporated, which include goal setting, strength programming, cardiovascular programming, flexibility, nutrition guidance and behavior modification. Feedback and evaluation methods are developed. (SFCC)

FMT 209 - Exercise and the Cardiovascular System (3 cr)
This course is designed for physical education, health science and fitness management technician majors who have desire to gain basic knowledge of the cardiovascular system at rest, in response to exercise and major disease states. The evaluation of risk factors, fundamentals of electrocardiography, exercise testing techniques, clinical management of major disease states and rehabilitation are discussed. (SFCC)

FMT 225 - Personal Training (5 cr)
This course enables students to recommend and develop safe exercise routines based on the following processes: 1) health screening, 2) fitness assessments, 3) client goals, 4) client motivation, 5) re-evaluation and 6) education. Students become competent in fitness testing protocols, proper exercise technique, nutrition for weight loss and sports performance; as well as legal, ethical and professional standards currently followed in the fitness industry. Students are prepared to take The American Council or Exercise Personal Trainer Certification exam. (SFCC)

FMT 235 - Biomechanics (5 cr)
This course covers the application of the mechanical principles involved in sport and exercise. Students are supplied with basic tools to facilitate the identification, analysis, and solution of problems related to human movement. Topics covered include basic terminology, kinematic and kinetic concepts, linear and angular movement, and equilibrium. (SFCC)

HEARING INSTRUMENT SPECIALIST

HIS 101 - Basic Hearing Instrument Sciences (4 cr)
This course defines, describes and identifies the physical processes of sound and sound amplification. Students in this course discover and learn the development of contemporary hearing instruments from a historical perspective. Students also demonstrate knowledge of hearing instrument components and logically communicate the expected benefits and limitations of various instruments. (SFCC)

HIS 104 - Hearing Physiology and Anatomy (4 cr)
This course describes the function and identifies the structures of the human ear and hearing. Students demonstrate through class discussion and written assignments knowledge of ear physiology and anatomy. (SFCC)

HIS 106 - Healthcare and Business Ethics (4 cr)
In this class students relate and discuss the ethical issues surrounding the performance of their work as hearing instrument specialists. Students class consider and then offer ethical solutions to a variety of possible challenges in their industry. (SFCC)

HIS 123 - Basic Audiometrics (5 cr)
In this course students demonstrate the ability to perform standard air, bone and speech audiometry. The students also display competent performance of video-otoscopy and patient testing instruction. Student perform the normal record keeping chores of this testing. Prerequisite: HIS 104, 106 or permission of instructor. (SFCC)

HIS 125 - Auditory Disorders (4 cr)
Students in this class describe and define the otologic conditions affecting hearing. Students also identify otologic red flags that require referral to medical physicians and other healthcare specialists. Prerequisite: HIS 104, 106 or permission of instructor. (SFCC)

HIS 127 - Hearing Healthcare Management I (4 cr)
Students in this course describe, outline and practice the wide-range skills and competencies necessary in the management of a typical hearing healthcare office's business operations. Prerequisite: HIS 104, 106 or permission of instructor. (SFCC)

HIS 134 - Advanced Audiometrics (5 cr)
Students practice and demonstrate competency in the more advanced diagnostic tests used in the industry. Students in this class will perform tympanometry, otoacoustic emission testing, and complete audiometric evaluations. Students show competence in both handwritten and computer-based recording of test results. Prerequisite: HIS 104, 106, 123 and permission of instructor. (SFCC)

HIS 136 - Hearing Instrument Technologies (4 cr)
This course prepares the student to work with the current technologies used in the hearing instrument industry. Students identify patients and audiological conditions that would benefit from specific circuits, matrices and instrument options. In this course students discuss advanced issues surrounding analog and digital amplification technologies. Prerequisite: Permission of instructor. (SFCC)

HIS 138 - Ear Couplers and Assistive Technologies (5 cr)
This course defines, describes and identifies the functional uses of different types of earmolds, shells and assistive listening devices (ALDs). Students practice taking impressions and modifying earmolds and shells for which they've made impressions. Students demonstrate the correct use of several commonly used ALDs. Ordering and record keeping activities are also practiced. Prerequisite: HIS 104, 106 and permission of instructor. (SFCC)

HIS 201 - Hearing Healthcare Management II (4 cr)
Students describe, outline and practice the wide range skills and competencies necessary in the management of a typical hearing healthcare office's products and services. Prerequisite: Permission of instructor. (SFCC)

HIS 205 - Introduction to Speech-Language Pathology and Audiology (5 cr)
Students explain and write an overview of deficits of speech, language and hearing, and the role of the speech-language pathologist and audiologist. Students also develop a referral protocol to these specialists for their patients. Prerequisite: HIS 104, 106 and permission of instructor. (SFCC)

HIS 206 - Hearing Instrument Specialist Laboratory I (4 cr)
In this course students practice connected activities involved in fitting and dispensing hearing instruments, including: Taking impressions, ordering earmolds/hearing instruments, performing quality control checks of incoming inventory, preprogramming analog and digital hearing instruments, performing real ear acoustic measurement and completing a variety of test box verifications. Ordering and record keeping activities are also practiced. Students develop good communication and problem-solving skills. Prerequisite: HIS 104, 106 and permission of instructor. (SFCC)

HIS 210 - Clinical Methods I (5 cr)
In this course students practice all skills associated with the provision of hearing healthcare services from the first patient contact to the final hearing instrument checkup. Prerequisite: HIS 104, 106 or permission of instructor. (SFCC)

HIS 213 - Marketing/Sales (4 cr)
Students identify, describe and define those elements that an effective marketing campaign should include. Students develop a marketing plan for a typical hearing instrument office. Students also define, practice and demonstrate skills necessary to increase patient compliance with purchase recommendations. Prerequisite: HIS 104, 106 or permission of instructor. (SFCC)

HIS 215 - Hearing Instrument Specialist Laboratory II (5 cr)
In this course students practice connected activities involved in fitting and dispensing hearing instruments including taking impressions, ordering earmolds/hearing instruments, performing quality control checks of incoming inventory, pre-programming analog/digital hearing instruments, troubleshooting malfunctioning instruments, and adjusting instruments for better fit and performance. Ordering and record keeping activities also are practiced. Students develop good communication and problem-solving skills. Prerequisite: HIS 104, 106 or permission of instructor. (SFCC)

HIS 222 - Clinical Methods II (6 cr)
In this course students practice all skills associated with the provision of hearing healthcare services from the first patient contact to the final hearing instrument checkup. Prerequisite: HIS 104, 106 or permission of instructor. (SFCC)

HIS 250 - Perspectives on Disabilities (4 cr)
Students learn to approach their patient recommendations and treatments showing careful consideration of those historical, international, socioeconomic, ethical, personal and age-related perspectives that may influence treatment outcomes. Students modify their perspectives on disability, individual choices, societal values and social responsibilities to provide the best care to all patients. Prerequisite: HIS 104, 106 or permission of instructor. (SFCC)

HIS 266 - Cooperative Education Seminar (1-2 cr)
For course description, see Cooperative Education. (SFCC)

HIS 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SFCC)

HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION

AIRC 103 - Fundamentals of Electricity in HVAC/R (4 cr)
Students explore the fundamental concepts of electricity and magnetism, and basic applications in the HVAC/R trade. Theory includes voltage, direct and alternating current, resistance, series and parallel circuits, electrical symbols and schematic diagrams, electrical safety, and basic electrical components. Emphasis will be placed on the skills to interpret basic schematics for gas heat, electric heat, and air conditioning systems. (SCC)

AIRC 106 - HVAC/R Electrical Applications (6 cr)
Students further explore electrical applications in the HVAC/R field. Topics include motors, line voltage and low voltage controls, relays, transformers, and thermostats. Special emphasis is placed on the development and use of schematic and wiring diagrams for troubleshooting gas and electric furnaces. (SCC)

AIRC 107 - HVAC/R Electrical Applications Lab (8 cr)
Topics will include wiring, testing, and troubleshooting of series and parallel circuits, low voltage and line voltage controls, interpretation of schematic diagrams, and electrical safety. Emphasis will be placed on wiring, testing, and troubleshooting an electric and gas furnace. (SCC)

AIRC 108 - Fundamentals of Heating Systems (6 cr)
This course introduces the fundamentals of heating with forced air fuel gas burning appliances and electric heating appliances. Students will explore gas codes, venting, gas piping, the combustion process, and components of residential and light commercial heating systems. Emphasis will be placed on sequence of operation, troubleshooting, and the relationship of the electrical and mechanical functions as a complete system. (SCC)

AIRC 109 - Fundamentals of Refrigeration (5 cr)
Students will explore the physics and theory governing the vapor-compression refrigeration cycle, human comfort and psychometrics, and practical applications of refrigeration systems. (SCC)

AIRC 110 - Fundamentals of Refrigeration Lab (10 cr)
Students will focus on the proper use of refrigeration tools, evaluating refrigeration system performance, analyzing ladder diagrams, and troubleshooting electrical components. (SCC)

AIRC 117 - Theory of Heat Transfer (4 cr)
Students explore basic concepts and applications of force, energy, fluids and heat as applied to refrigeration and air conditioning. Topics include energy, heating and air conditioning equipment, thermal heat properties, basic refrigeration cycles, test equipment, and tools of the trade. (SCC)

AIRC 125 - Sheet Metal Layout and Fabrication (1 cr)
This course introduces the theory and practical application of sheet metal practices in duct fabrication. Topics include sheet metal tools, layout, duct fabrication, and duct installation procedures. (SCC)

AIRC 126 - Sheet Metal Layout and Fabrication Lab (3 cr)
Lab component to accompany AIRC 144 Sheet Metal Layout and Fabrication. Students will use sheet metal tools, equipment, and layout procedures to fabricate and install a duct system. (SCC)

AIRC 136 - HVAC/R Safety (1 cr)
This course will introduce students to the safety requirements mandated by the Washington Department of Labor and Industries and OSHA. Topics include safety standards, fall protection, electrical safety, struck-by, caught-in or between, PPE, HAZMAT, and health hazards in construction. (SCC)

AIRC 137 - Fundamentals of Heating Systems Lab (8 cr)
Students will wire, troubleshoot, and repair residential and light commercial heating systems. Emphasis will be placed on developing skills to identify system problems, troubleshooting strategies, and repair procedures. (SCC)

AIRC 203 - Fundamentals of Air Conditioning (7 cr)
This course continues refrigeration instruction to also include comfort cooling and air conditioning. Students will explore techniques for proper refrigerant handling, recovery, recycling, reclaim, and evacuation, in preparation for the EPA 608 Refrigerant Handling License. Electrical skills will be further developed, exploring the use of electric motors, capacitors, motor protective devices, additional controls, and code compliance. (SCC)

AIRC 204 - Fundamentals of Air Conditioning Lab (7 cr)
Students will focus on the proper use of refrigeration tools, evaluating refrigeration and air conditioning system performance, analyzing ladder diagrams, troubleshooting electrical components, recovery and evacuation procedures, and brazing techniques. (SCC)

AIRC 205 - System Performance Testing (5 cr)
This course will introduce students to the idea of considering the individual components as part of a complete system when evaluating performance. Topics include the measurement of system performance through airflow, critical charge, charging tables for air conditioning systems, combustion analysis for combustion appliances, economizers, fan laws, fan and blower performance, air distribution systems, and hydronics. Heat transfer in buildings and calculation of heat load will also be covered, focusing on the building as a system. (SCC)

AIRC 206 - System Performance Testing Lab (10 cr)
Students will measure airflow and analyze results, evaluate system performance, and practice advanced troubleshooting procedures. Troubleshooting will include refrigeration problems, compressor replacements, electrical problems including compressors, motors, and controls, combustion problems, and airside problems. (SCC)

AIRC 207 - System Servicing and Troubleshooting of Heat Pumps (5 cr)
Students will explore heat pump fundamentals, types of heat pump systems, system accessories, troubleshooting, and diagnostics. Topics include heat pump compressors, flow control, thermostats, controls, control strategies, piping, electrical and mechanical troubleshooting, and airflow. Electrical skills will be further developed, exploring the use of electric motors in heat pump systems, capacitors, motor protection devices, controls, and code compliance. (SCC)

AIRC 208 - System Servicing and Troubleshooting of Heat Pumps Lab (10 cr)
Lab exercises will focus on understanding and troubleshooting the refrigeration cycle, electrical components, evaluation looking at the system as a whole, and strengthening technician skills through the use of schematic reading, troubleshooting procedures, and customer service techniques. (SCC)

AIRC 262 - Fundamentals of Direct Digital Control (5 cr)
This course introduces the fundamentals of control theory and applications for direct digital control in commercial HVAC/R systems. Topics include unique characteristics of commercial buildings, commercial and mechanical systems, control theory, sensors, control strategies, control devices, basic electronics, and basic networked communication systems. (SCC)

AIRC 265 - Fundamentals of Direct Digital Control Lab (10 cr)
Students will select, install, and commission a direct digital control system for a specific commercial application. Applications include a rooftop unit with economizer, geothermal heat pump, and commercial low temp refrigeration system. (SCC)

AIRC 266 - Cooperative Education Seminar (1-2 cr)
For course description, see Cooperative Education. (SCC)

AIRC 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SCC)

HISTORY

HIST 105 - Historical Roots of Contemporary Issues (5 cr)
This course explores the historical roots of various contemporary global problems from multiple perspectives. (SFCC, SCC)

HIST 106 - World History to 1500 (5 cr)
World History to 1500 is a comparative inquiry into societies and cultures on the six inhabited continents. It emphasizes economic, social and political globalization and serves as a broad foundation for further studies in history. (SCC, SFCC)

HIST 107 - World History since 1500 (5 cr)
World History since 1500 is a comparative inquiry into societies and cultures on six inhabited continents. It emphasizes economic, social and political globalization and serves as a broad foundation for further studies in history. (SCC, SFCC)

HIST& 116 - Western Civilization I (5 cr)
The major political, social and economic developments of pre-Hellenic, Greek, Roman and medieval history in terms of their contribution to Western civilization. (SCC, SFCC)

HIST& 117 - Western Civilization II (5 cr)
European man from the feudal period through the French Revolution and the Napoleonic period. (SCC, SFCC)

HIST& 118 - Western Civilization III (5 cr)
The development of Western civilization from the French Revolution to the present. (SCC, SFCC)

HIST& 136 - US History 1 (5 cr)
The historical development of the American people from the beginning of European contact to the end of the Civil War with emphasis on the indigenous peoples, the Colonial period, independence, the Constitution, the early Republic and the sectional crisis. (SCC, SFCC)

HIST& 137 - US History 2 (5 cr)
The development of the United States from the end of the Civil War to the present; emphasis on both the understanding and evaluation of basic historical materials. (SCC, SFCC)

HIST& 214 - Pacific NW History (5 cr)
The exploration, settlement and growth of the political, economic and social institutions of Washington and the Pacific Northwest; includes the study of local and state government and environmental problems in the state of Washington. (SCC, SFCC)

HIST& 219 - Native American History (5 cr)
This introductory course includes an analysis of early North American Indian history pre-colonization, colonization, and post colonization with a chronology and emphasis on the events and developments of the indigenous peoples who inhabited this country from the period of European contact through the end of the 20th century. (SCC)

HIST 230 - Latin American History (5 cr)
A survey of Latin American history from the Colonial era through the Independence period, culminating with the economic, social, and political developments and significant events of the 20th century. (SCC, SFCC)

HIST 240 - History of Modern Middle East (5 cr)
This course prepares students for advanced-level courses in Middle Eastern studies. The time period primarily covered the modern developments from the ottoman period to the present, with an emphasis placed on understanding the peoples of the Middle East, their traditions and histories. (SCC, SFCC)

HIST 266 - Cooperative Education Seminar (1-2 cr)
For course description, see Cooperative Education. (SFCC)

HIST 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SFCC)

HIST 280 - Introduction to Modern British Government and Social Services (3 cr)
Formerly POLS 280. A three-credit introduction to British cultural, economic and political institutions in their historical context. Prerequisite: Only for students in England for the Service Learning in England program. (SFCC)

HOTEL AND RESTAURANT MANAGEMENT

HM 110 - Introduction to Hospitality (5 cr)
This course introduces students to the basic principles of public hospitality. The history of the industry, organizational methods, employment opportunities and problems facing the hospitality industry are presented. (SCC)

HM 111 - Seminar - Hotel/Restaurant/Tourism (2 cr)
Students study recent trends and business factors that affect the hospitality/tourism industry. Various components of hotel/restaurant/tourism are emphasized. (SCC)

HM 112 - Hospitality Mathematics (3 cr)
This course introduces the concepts of mathematics relating to the hospitality field. Liquid and dry measurements, percentages, and the metric system are introduced. Recipe costing, portion control, contraction and expansion of recipes and formulas, and yield analysis of food products are calculated. Prerequisite: Appropriate placement scores. (SCC)

HM 115 - Food Sanitation (3 cr)
This course introduces students to the basic principles of sanitation and their significance in food service. Implementing sanitary procedures and programs in the kitchen is emphasized. A national certification exam is given at the conclusion of the course. (SCC)

HM 116 - Nutrition for Chefs and Restaurant Managers (3 cr)
This course introduces students to the characteristics, functions, and food sources of major nutrients and how to maximize nutrient retention in food preparation and storage. Digestion, energy needs, recommended daily allowances and dietary guidelines are emphasized. Prerequisite: HM 115 or concurrent enrollment. (SCC)

HM 126 - Food Science (5 cr)
This course emphasizes basic cooking methods including the preparation of soups; stocks and sauces, meat, fish and poultry; vegetables, fruits and starches; as well as an introduction to breakfast and baking preparation. Prerequisite: Permission of instructor or counselor. (SCC)

HM 130 - Human Relations (5 cr)
Students are introduced to the basic principles of human behavior and their application in developing positive working relationships. (SCC)

HM 141 - Maintenance and Engineering (4 cr)
Students are introduced to the basic technical knowledge required to establish preventive maintenance procedures for hotel/restaurant facilities. (SCC)

HM 151 - Restaurant Management (3 cr)
Students are introduced to the food and beverage operation of hotels and motels. (SCC)

HM 160 - Supervisory Housekeeping (3 cr)
Students are introduced to the fundamentals of housekeeping management, recordkeeping and executive responsibilities. Employee training methods are emphasized. (SCC)

HM 202 - Front Office Procedures (4 cr)
Students are introduced to the essential routines addressing all aspects of front office procedures. Registration and reservation processes, rules and regulations and their application to the hotel-motel industry, and ethics and general strategies used when dealing with the public are emphasized. Prerequisite: CIS 110. (SCC)

HM 205 - Hotel/Restaurant Law (5 cr)
Students are introduced to the basic principles of law as it pertains to the operation of hotels and motels. Legal liability, conventional and sales contracts, statutory law, and innkeeper and guest responsibilities are emphasized. (SCC)

HM 208 - Hotel Sales and Marketing (2 cr)
Students are introduced to the fundamentals of hotel/restaurant sales promotion, publicity, advertising, finances and other marketing skills. Advertising and marketing strategies are emphasized. Prerequisite: CIS 110, HM 130. (SCC)

HM 220 - Tourism and the Hospitality Industry (3 cr)
Students are introduced to package tourism arrangements, economics of tourism, and marketing strategies and their relationship to the industry. Prerequisite: CIS 110, HM 130. (SCC)

HM 232 - Hotel/Restaurant Management Principles (5 cr)
Students are introduced to the principles of hotel/restaurant management and their relationship to the overall management of facilities and personnel in the industry. Development of supervisory skills and coaching techniques to improve employee performance is emphasized. Prerequisite: CIS 110, HM 130. (SCC)

HM 251 - Restaurant Management (5 cr)
Students are introduced to the food and beverage operation of hotels and motels with advanced management techniques. (SCC)

HM 255 - Menu Planning (3 cr)
Students are introduced to the composition of menus, and includes purchasing procedures, merchandising, servicing and pricing of foods. Planning a functional, operative menu using appropriate menu copy and layout is emphasized. Prerequisite: Permission of the instructor or counselor. (SCC)

HM 265 - Hospitality Cost Controls (5 cr)
This course introduces the principles and procedures involved in an effective system of food, labor and sales income control. The development and use of standards and the calculation of actual costs are emphasized. (SCC)

HM 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SCC)

HM 288 - Cooperative Education Work Experience (No Seminar) (1-18 cr)
For course description, see Cooperative Education. (SCC)

HUMAN SERVICES

HS 102 - Introduction to Human Services (5 cr)
This course is an introduction to human services. Included are current services, merits and shortcomings of current services, and new programs that are needed to meet service gaps and shortcomings. (SFCC)

HS 105 - Child Abuse (5 cr)
The focus of the course explores the phenomena of child abuse from the perspective of the family. From this perspective, the class examines risk factors that predispose families toward child abuse and neglect. The class delves into the legal and psychological issues of physical abuse, physical neglect, psychological maltreatment and sexual abuse. The class will highlight approaches to prevention. (SFCC)

HS 115 - Social Policy (5 cr)
An introductory course that is policy-oriented. It attempts to instill systematic habits of analysis and inquiry that will increase the student's awareness and objectivity. The focus is on current issues and problems in social work. (SFCC)

HS 131 - Human Services Seminar I (1-5 cr)
This course acquaints students with various people-helping skills applicable to a variety of social service settings in the community. Designed to fill emerging needs prior to the development of a regular course or to fill one-time training needs. This course may be repeated for up to 10 credits. (SFCC)

HS 132 - Human Services Seminar II (1-5 cr)
This course acquaints students with various people-helping skills applicable to a variety of social service settings in the community. Designed to fill emerging needs prior to the development of a regular course or to fill one-time training needs. This course may be repeated for up to 10 credits. (SFCC)

HS 136 - Improving Interpersonal Communication (5 cr)
Designed to help people live more effectively through improved communication skills. Study, awareness and practice of these skills will enhance students' effectiveness in beginning, maintaining and ending relationships. Students will gain skills in managing controversy, stress and anger. The course is a balance between theory and practice of the skills and concepts involved in becoming an effective communicator. (SFCC)

HS 221 - Treatment Theories in Human Services (5 cr)
This course covers concepts, theories and practices regarding social work treatment. It focuses on the constructs, underlying principles, theories, practices and desired outcomes of several contemporary treatment modalities. Prerequisite: AS176/second year standing. (SFCC)

HS 281 - Practicum I (5 cr)
Students in the human services programs are placed in a practicum setting where they have an opportunity to observe and to work with people in a human service setting. Each student is individually placed in accordance with his/her career direction. Placements are made in areas such as gerontology, social work, education, early childhood education, special education and hearing impaired. Individual student conferences are arranged to facilitate the total experience. (SFCC)

HS 282 - Practicum II (5 cr)
Students in the human services programs are placed in a practicum setting where they have an opportunity to observe and to work with people in a human service setting. Each student is individually placed in accordance with his/her career direction. Placements are made in areas such as gerontology, social work, education, early childhood education, special education and hearing impaired. Individual student conferences are arranged to facilitate the total experience. (SFCC)

HS 283 - Practicum III (5 cr)
Students in the human services programs are placed in a practicum setting where they have an opportunity to observe and to work with people in a human service setting. Each student is individually placed in accordance with his/her career direction. Placements are made in areas such as gerontology, social work, education, early childhood education, special education and hearing impaired. Individual student conferences are arranged to facilitate the total experience. (SFCC)

HUMANITIES

HUM& 101 - Intro to Humanities (5 cr)
This is an interdisciplinary program introducing students to the humanities through the arts-music, drama, poetry, movies, dance and the visual arts. In addition to an understanding of the basic elements and principles of the arts, each student perceives the role of the arts in society, the range of creative expression and what is involved in the creative process. Participation involves a variety of learning experiences including attendance at campus and community arts events, group discussion, multimedia instructional units and personal creative expression. Students may purchase tickets for a wide variety of offerings such as Civic Theatre, Spokane Symphony Orchestra, movies, etc., in lieu of a textbook. (SCC, SFCC)

HUM 102 - Introduction to Women's Studies (5 cr)
This course explores issues relating to women including but not limited to women's history, women's work and the socialization of women. Additionally, this course examines some of the differences between women and men, with the hope that through descriptive study, female and male students become empowered in new ways. In part, this goal encourages an in-depth look at the social structures and dominant dialogues that have posed limits upon both women and men while encouraging the search for removing such limits. (SCC, SFCC)

HUM 107 - Introduction to Cultural Studies (5 cr)
This course introduces students to the practice of analyzing American popular culture in its various forms, from films, advertisements and music to the habits and practices that characterize everyday life in the United States. Students learn to "read" popular culture using a wide range of interdisciplinary perspectives and theories, in particular those that emphasize how class, gender, sexuality, nationality and race are represented in cultural texts. Students discuss how these representations shape cultural beliefs and attitudes. Prerequisite: ENGL& 101 or permission of instructor. (SCC, SFCC)

HUM 201 - Humanities, Past, Present, and Future (5 cr)
An interdisciplinary class introducing students to the human quest for the meaning of life. Students will analyze literature, philosophy, music, history, and the visual arts of the past and present and then create future scenarios for themselves and societies. In addition to lecture presentations, students have assigned reading, elective reading and writing assignments weekly. Each student will also has a special humanities project. (SCC)

HUM 295 - Special Topics in Humanities (1-5 cr)
A team-taught interdisciplinary class. Specific content and focus vary from quarter to quarter according to designation and credits filed in advanced of each scheduling. Students participate in a variety of learning experiences such as lectures, seminars, panel discussions, etc., all of which explore selected issues from the following areas: philosophy, music, art history, film, drama, literature or the history of ideas. (SCC)

HYDRAULIC AND PNEUMATIC AUTOMATION TECHNICIAN

FLPT 104 - Hydraulics/Pneumatic Fundamentals (6 cr)
Students learn the basic fundamentals of hydraulics/pneumatic operations. (SCC)

FLPT 111 - Hydraulic Calculations (5 cr)
This course is a review of basic algebra skills and procedures required for setting up and solving fluid power problems. Mathematical formulas required to calculate oil pressure, actuator forces and speed, oil flow and velocities required for fluid line sizing are emphasized. The use of force and speed requirements of a machine to set up the hydraulic system calculations required for determining oil flow, oil pressure and the input horsepower is stressed. Prerequisite: Concurrent enrollment in FLPT 112, 113, 114. (SCC)

FLPT 112 - Hydraulic Basics and Theory (5 cr)
This course introduces basic laws related to oil hydraulics and their practical applications to hydraulic component operation by changing either oil flow or pressure. Students relate the hydraulic component to the corresponding ANSI fluid power symbol and study hydraulic schematics for automated machinery identifying each component and its application and effect on the total system. Industrial plants and machine manufacturers who build machinery using industrial hydraulic components are studied in the classroom. Prerequisite: Concurrent enrollment in FLPT 111, 113, 114. (SCC)

FLPT 113 - Blueprint Reading (4 cr)
Students are introduced to the basic construction of automated machinery including the various types of materials, fasteners, and welding and machining operations used to fabricate machine parts from mechanical drawings. Machining tolerance, finishes, parts dimensioning, welding symbols, and the types of details, sections and views used on typical mechanical drawings are presented. Prerequisite: Concurrent enrollment in FLPT 111, 112, 114. (SCC)

FLPT 114 - Basic Hydraulics Lab (2 cr)
This course offers practical applications in the study of oil flow and pressure and their relationship to component operation. Students learn to read hydraulic schematics for automated machinery. Prerequisite: Concurrent enrollment in FLPT 111, 112, 113. (SCC)

FLPT 121 - Pneumatic Theory (6 cr)
This course introduces basic laws related to compressed air and their application in air compressors, plant air, piping, and sizing pneumatic components. Mathematical formulas and setup procedures for calculations required in pneumatic systems and the production of schematic drawings for pneumatic power and control circuits are included. Prerequisite: Concurrent enrollment in FLPT 122, 123. (SCC)

FLPT 122 - Drawing Fundamentals (3 cr)
This course introduces basic sketching and lettering emphasizing orthographic and isometric drawing styles. The layout and dimensioning of shop mechanical drawings are presented. Prerequisite: Concurrent enrollment in FLPT 121, 123. (SCC)

FLPT 123 - Machine Controls (7 cr)
Students study the interfacing of mechanical, hydraulics, pneumatics with electrical, electronic or pneumatic controls for predetermined sequence of operation for automated machines. Reading and drawing the electrical schematics used to control solenoid valves for hydraulic or pneumatic actuators; terminology and symbols used in programming schematics for an Allen Bradley Mini PLC 2 programmable controller; interpreting symbols required for reading air logic pneumatic schematics used for machine controls; and writing machine sequence of operations to match schematic operations are emphasized. Prerequisite: Concurrent enrollment in FLPT 121, 122. (SCC)

FLPT 131 - Hydraulic Systems (6 cr)
This course is a detailed study of five basic hydraulic systems and their applications to powering production machinery. Basic systems, hydraulic components and their working relationship which is controlled by their location, and piping arrangement in the overall system are emphasized. Prerequisite: FLPT 111, 112, 121 and concurrent enrollment in FLPT 132, 133, 134, 135. (SCC)

FLPT 132 - Fluid Line Fabrication (2 cr)
This course offers practical applications in fluid conductor fabrication emphasizing the safe and accurate operating procedures required in the setup and use of specialized tools. Fabricating procedures include cutting and threading pipe; cutting, bending and flaring tubing; cutting hydraulic hoses; and assembling permanent and reusable hose ends. Prerequisite: FLPT 112, 121 and concurrent enrollment in FLPT 131, 133, 134, 135. (SCC)

FLPT 133 - Fluid Line Connectors (5 cr)
Students study the three basic types of fluid lines and the fittings required to install them in a hydraulic system. Fluid line construction, materials used, manufacturing tolerances, quality control, specifications for purchasing, pressure limitations and oil flow characteristics based on I.D. are covered. Fitting identification, description and manufacturer part numbers are used to acquaint students with high pressure, low pressure and vacuum applications. Prerequisite: FLPT 112, 121 and concurrent enrollment in FLPT 131, 132, 134, 135. (SCC)

FLPT 134 - Shop Drawing (2 cr)
Students are introduced to drawing and lettering skills required to produce drawings of parallel bars, directional valve templates, and pump and motor mounting brackets. Prerequisite: FLPT 112, 121 and concurrent enrollment in FLPT 131, 132, 133, 135. (SCC)

FLPT 135 - Fluid Line Sizing Calculations (2 cr)
This course deals with specific calculations required in the study of fluid lines to size fluid lines in hydraulic systems. Prerequisite: FLPT 112, 121 and concurrent enrollment in FLPT 131, 132, 133, 134. (SCC)

FLPT 136 - Applied Hydraulics/Pneumatics (2-5 cr)
This course introduces to the basics of fluid power and its application to various programs. Hydraulic and pneumatic systems operation and their relationship to electrical, electronic or pneumatic control systems are emphasized. The course is offered for variable credits to meet the needs of various programs. (SCC)

FLPT 230 - Advanced Pneumatics Theory (3 cr)
Students learn energy and air consumption; pneumatic automation components; pneumatic system design and vacuum system and applications. Prerequisite: FLPT 131 and concurrent enrollment in FLPT 231, 232, 233, 234. (SCC)

FLPT 231 - Advanced Pneumatics Lab (2 cr)
Students learn energy and air consumption; pneumatic automation components; pneumatic system design and vacuum system and applications. Prerequisite: FLPT 131 and concurrent enrollment in FLPT 231, 232, 233, 234. (SCC)

FLPT 232 - Mechanical Drive Systems Theory (3 cr)
Students learn the Mechanical Drive System servo and stepper motor drives; lead screw technologies; variable speed drives and drive controls. Prerequisite: FLPT 231 and concurrent enrollment in FLPT 231, 232, 233, 234. (SCC)

FLPT 233 - Mechanical Drive Systems Lab (3 cr)
Students learn the Mechanical Drive System servo and stepper motor drives; lead screw technologies; variable speed drives and drive controls. Prerequisite: FLPT 232 and concurrent enrollment in FLPT 231, 232, 233, 234. (SCC)

FLPT 234 - Velocity and Load Calculations (1 cr)
This course content relates to load velocities and kinetic energy; moment load calculations and force requirements. Prerequisite: FLPT 233 and concurrent enrollment in FLPT 230, 231, 232, 233. (SCC)

FLPT 243 - Advanced Machine Controls (5 cr)
This course is a study of the advantages of programmable logic controllers (PLC) over relay logic machine control. Students learn the advantages of machine control available when using data manipulation features in PLC programming. Converting relay logic electrical schematic drawings to PLC schematics, developing a PLC program from a specific machine sequence of operation, programming the PLC and verifying the program on a machine simulator board wired to the PLC are emphasized. Prerequisite: FLPT 131. (SCC)

FLPT 251 - Hydraulic Circuits (4 cr)
Students learn the principles of circuits, components and fluid line sizing. Estimating costs for materials is introduced. Prerequisite: FLPT 131 and concurrent enrollment in FLPT 252, 253, 254. (SCC)

FLPT 252 - Hydraulic Component Repair (6 cr)
Students learn shop procedures for hydraulic and pneumatic component disassembly, inspection, repair and testing using prepared lab sheets and manufacturers' parts sheets. Safe use of hand tools and the importance of cleanliness in the work area are emphasized. Prerequisite: FLPT 131 and concurrent enrollment in FLPT 251, 253, 254. (SCC)

FLPT 253 - Fluid Line Layout and Assembly (2 cr)
This course introduces basic procedures required for the layout and assembly of pipe and pipe fittings to fit a specific component arrangement. The fabrication of fluid lines to fit existing tube fittings that meet or exceed the manufacturers' pressure test specifications is emphasized. Prerequisite: FLPT 131 and concurrent enrollment in FLPT 251, 252, 254. (SCC)

FLPT 254 - Advanced Hydraulics Lab (3 cr)
This course offers practical applications in the creation of hydraulic circuits emphasizing calculations, selection of components and sizing fluid lines. Costing out materials is presented. Prerequisite: FLPT 131 and concurrent enrollment in FLPT 251, 252, 253. (SCC)

FLPT 264 - Fluid Power Computer Applications (4 cr)
Students are introduced to various computer applications used in the fluid power industry. Students learn basic AutoCad commands and procedures used to create schematics using specialized symbol menus. They become proficient in the use of Automation Studio, a fluid power simulation program, to design and troubleshoot circuits. In addition, students learn to develop a hydraulic engineering calculations worksheet using Excel and to use manufacturers' CDs for design and engineering specifications. Prerequisite: Successful completion of first year or permission of instructor. (SCC)

FLPT 265 - Hydraulic Circuit Design (3 cr)
This course offers practical shop experience in the construction of a hydraulic circuit design from an automated machine specification. Prerequisite: FLPT 251 and concurrent enrollment in FLPT 268, 269. (SCC)

FLPT 266 - Cooperative Education Seminar (1-2 cr)
For course description, see Cooperative Education. (SCC)

FLPT 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SCC)

FLPT 268 - Fluid Power Application and Sales (5 cr)
This course introduces controlled selling techniques required for successful fluid power sales. Computerized inventory control methods are included. Prerequisite: FLPT 251 and concurrent enrollment in FLPT 265, 269. (SCC)

FLPT 269 - Hydraulic Manifold Design (5 cr)
This course offers theory and practical lab experience in the identification of important controlling factors necessary to specify a custom made hydraulic manifold. Students learn to generate a series of manifold drawings using component layout techniques and AutoCad. Prerequisite: FLPT 251 and concurrent enrollment in FLPT 265, 268. (SCC)

FLPT 271 - Pneumatic Theory (2-5 cr)
This course introduces basic pneumatic (compressed air) theory, identification of components in a pneumatic system, and basic circuit design and troubleshooting. (SCC)

FLPT 272 - Pneumatic Math and Symbols (2-4 cr)
This course introduces basic pneumatic theory and the interpretation of pneumatic symbols and diagrams. Related mathematics for calculating flow, pressure and volume is presented. (SCC)

FLPT 273 - Hydraulic Theory (2-5 cr)
This course introduces basic hydraulic theory. Students learn to identify and apply components in a hydraulic system. (SCC)

FLPT 274 - Applied Hydraulics (2-4 cr)
This course offers practical application and interpretation of hydraulic circuits emphasizing the drawing and interpretation of circuits using proper schematic symbols. (SCC)

FLPT 279 - Proportional Valves (4 cr)
Students are introduced to the use of proportional valves to accurately position, accelerate and decelerate actuators. Precise mechanical positioning of the valve spool and the interfacing of an electronic sensor to indicate spool position is emphasized. The effect of infinite spool positioning on oil pressure and the elimination of hydraulic system shock is covered. Prerequisite: FLPT 112 or 136 or 273 and 274 or permission of instructor. (SCC)

FLPT 288 - Cooperative Education Work Experience (No Seminar) (1-18 cr)
For course description, see Cooperative Education. (SCC)

INDUSTRIAL MAINTENANCE MECHANIC

IMMA 101 - Technical Drawings (5 cr)
In this course, apprentices will learn to read and interpret technical drawings and schematics, as well as practice basic drafting. Apprentices will begin by learning to interpret the basic elements of a drawing, line types, principles of orthographic projection, and normal, sectional, and auxiliary views. Apprentices will learn to interpret dimensioning and tolerancing on prints, including geometric dimensioning and tolerancing. Drawings studied in this class will come both from the text and from industry, and will include machining, fabrication, assemblies, and fluid power systems. Apprentices will also learn about various types of fasteners, cams, and gears. Hands-on activities in this course include creating various types of shop sketches, and applying print-reading knowledge to inspect a part. (SCC)

IMMA 102 - Lifting and Rigging (5 cr)
Practical application and safe operation of lifting equipment commonly used in industrial maintenance such as forklifts, scissor lifts, and cranes. Apprentices will learn proper and safe techniques for manual lifting, hand signaling, and radio communication. They will learn about methods of moving machinery, which includes lifting materials, supplies, and equipment such as cranes, forklifts, pallet jacks, and engine hoists. This course also covers techniques for lifting personnel such as man lifts and bucket trucks, and includes fall protection training. Apprentices will learn about techniques, calculations, and equipment for rigging and rigging inspection. Hands-on experience may include forklift operation, material staging, rigging projects, crane operation, and field trips where available. (SCC)

IMMA 103 - Precision Machining (5 cr)
The apprentices will explore theory, application, and hands-on experience with precision machining practices for industrial maintenance. Apprentices will explore topics related to manual machine tool setup and operation, for saws, drill presses, engine lathes, milling machines, and grinders. Apprentices will also gain bench work experience, including hole-making and part finishing operation using hand tools. An emphasis will be placed on preventative maintenance and safety in the shop while operating machines and handling tools and materials. Apprentices will plan, machine, and inspect two projects: a C-clamp and a plumb bob. (SCC)

IMMA 121 - Maintenance Welding (5 cr)
Apprentices will explore theory in the classroom and gain hands-on experience with essential welding and cutting practices commonly used for industrial maintenance applications. Apprentices will explore theory and practice for cutting processes such as oxyfuel cutting, plasma cutting, and ironworker operation. Apprentices will practice welding techniques using the following processes: GMAW (MIG welding), SMAW (stick welding), and OAW. Additional topics include brazing, blueprint reading (welding symbols), repair welding, surfacing, and pipe welding. Apprentices will learn how to properly inspect and set up the equipment before welding, as well as how to prepare materials and various types of joints for welding. Apprentices will also learn about finishing procedures, inspection, and cleanup. The capstone project for this course is a welded steel stepstool that can be used in the home or the shop, which the apprentices will plan out, cut, weld, finish, and inspect. Throughout the course there will be an emphasis on safety, which includes proper attire and personal protective equipment (PPE), as well as potential hazards and necessary safety precautions before, during, and after welding. (SCC)

IMMA 122 - Electrical Systems (5 cr)
In this course, apprentices will learn about industrial electrical theory, components, and equipment necessary to troubleshoot electrical problems. Apprentices will begin by learning to interpret electrical symbols, diagrams, and terminology. They will explore topics such as electric power, circuits, wiring, and transformers. This course will also cover AC theory, motors, control circuits, industrial electronics, line diagrams, circuit logic and programming, as well troubleshooting techniques. Apprentices will gain hands-on experience with electrical components, circuits, and electrical test equipment used in industry. (SCC)

IMMA 123 - Machine Automation Theory (5 cr)
This course explores advancing technologies in manufacturing relevant to industrial maintenance with a focus on programmable logic controllers (PLCs). The course begins with a review of electrical and PLC safety. Apprentices will explore topics such as PLC hardware, installation, maintenance, and programming. Apprentices will learn how to troubleshoot problems that occur with PLC hardware and software. This course incorporates hands-on activities that utilize PLC software and simulators. (SCC)

IMMA 201 - Math for Industrial Maintenance (5 cr)
This course involves the application of mathematics to the industrial maintenance environment. Students will perform standard shop computations and conversions between measurement systems. Relevant mathematical concepts are taken from Algebra, Geometry, and Trigonometry to help students apply formulas and common technical application problems. Basic math skills will be reviewed including decimals, fractions and conversions between them. This course also includes the use and application of formulas required in industry. Students will learn properties of angles and common geometric shapes and relevant trigonometric functions, and they will be introduced to graphs and statistics. (SCC)

IMMA 202 - Maintenance Machining (5 cr)
The apprentices will explore intermediate-level theory, application, and hands-on experience with machining practices for industrial maintenance. Apprentices will learn about CNC machines, drives, positioning systems, feedback methods, and sensors, as well as maintenance and safety topics. Apprentices will learn advanced techniques for operating lathes, milling machines, and other machine tools in order to create their culminating project, a gear puller, which they can use maintenance work. Apprentices will explore additional machining topics important for industrial maintenance, such as key seats and keyways, restoring and removing threads and bolts, and fastening and assembly techniques (SCC)

IMMA 203 - Mechanical Systems (5 cr)
The apprentices will learn to maintain all of the elements of a mechanical system. Apprentices will begin by exploring mechanical fundamentals such energy, mechanical forces, and simple machines. Apprentices will learn to troubleshoot, assemble, and maintain systems and components such as couplings, bearings, belt and chain drives, gear drives, seals and packing, and clutches and brakes. Apprentices will also learn principles of lubrication and machine vibration. Hands-on activities will involve inspecting and making repair recommendations for mechanical systems found in industry such as gearboxes, worm drives, standard transmissions, and differential drives. Apprentices will also practice coupling alignment skills using a simulation station. (SCC)

IMMA 221 - Fluid Power Systems (5 cr)
This course explores the fundamental theories and practical application of fluid power systems with a focus on system setup and maintenance. Apprentices will explore the fundamentals of hydraulic and pneumatic systems, including operation, maintenance, and safety, as well as interpreting related standards, symbols, and diagrams. Components of fluid power systems will be covered in detail, such as compressors, motors, piping and hoses, pumps, actuators, and valves. Apprentices will practice their skills in the troubleshooting and repair of hydraulic and pneumatic systems with simulator software and hands-on activities. (SCC)

IMMA 222 - Materials, Processes, and References (5 cr)
In this course, apprentices will explore metallurgy, material properties and characteristics, related standards, and processes commonly used to manipulate materials. Apprentices will begin by learning about material composition and characteristics of the five basic metals: steel, stainless steel, cast iron, aluminum, and brass (copper). This course will then explore manufacturing processes used to manipulate metals, such as machining, casting, and forging, as well as processes that change their chemical composition, including heat treatment. The apprentices will also learn about and practice inspection techniques such as hardness testing and non-destructive testing (NDT) techniques with modern equipment. Hands-on projects for this course include materials testing, heat treatment, case hardening, casting, and material sample identification projects. Throughout the course, apprentices will research materials and processes in the shop reference Machinery's Handbook. (SCC)

IMMA 223 - Mechatronics Capstone (5 cr)
In this course, apprentices will design, build, and implement a mechatronics project that incorporates skills that have been studied and practiced throughout the industrial maintenance technician apprenticeship. Using new and salvaged parts, apprentices will create a robot or automated system that incorporates mechanical systems, fluid power systems, electrical systems, and programmable logic controllers. Coursework will also include research and written reports related to the project. Apprentices will utilize tools and equipment from the industrial maintenance field including hand tools, machine tools, welding equipment, and measuring tools. (SCC)

INFORMATION SYSTEMS AND TECHNOLOGY

ISIT 310 - Routing and Switching in the Enterprise (5 cr)
Familiarizes students with the equipment, applications and protocols installed in enterprise networks, with a focus on switched networks, IP Telephony requirements, and security. Students are introduced to the design, security and configuration of basic switched networks, VLANs and to the concepts of routing, router configuration. Advanced routing protocols such as Enhanced Interior Gateway Routing Protocol (EIGRP) and Open Shortest Path First (OSPF) Protocol are investigated. Recommended: IS 262 or equivalent. Prerequisite: Applied BAS degree students only. (SFCC)

ISIT 332 - Data Warehousing (5 cr)
This course introduces and applies the concepts of design, implementation, management and troubleshooting of data warehousing, enterprise database technologies, data aggregation and configuration concepts. Technologies include Oracle, MS-SQL, Hadoop and data manipulation solutions. Prerequisite: Applied BAS degree students only. (SFCC)

ISIT 344 - Virtualization and Storage (5 cr)
This course introduces and applies the concepts of design, implementation, management and troubleshooting of cloud computing, application, desktop and server virtualization, network virtualization and large storage systems. Technologies include VMWare and Storage Area Networks (SAN) solutions. Recommended: IS 262 or equivalent. Prerequisite: Applied BAS degree students only. (SFCC)

ISIT 360 - Database Application Development (5 cr)
This course builds on previous coursework and/or experience to design and implement database back-ends and front-ends. Solutions include RDBMS and noSQL designs, and desktop / web-based front-ends. Previous database and coding experience is required. Prerequisite: Applied BAS degree students only. (SFCC)

ISIT 410 - Enterprise Server Administration (5 cr)
Students learn to install, maintain and administer servers and associated networks using a contemporary industry-standard proprietary operating system. Some of the topics covered include hardware requirements; software compatibility; system installation and manual configuration, performance tuning and post-installation topics; advanced administrative and technical practices required for system security; process management; performance monitoring and tuning; storage management; back-up and recovery services. Prerequisite: Applied BAS degree students only. (SFCC)

ISIT 444 - Automation/Configuration Management (5 cr)
This course introduces and applies the concepts of design, implementation, management and troubleshooting of task automation, change management, configuration management, and log management in an enterprise computing environment. Examples of technologies include Powershell, Python, Windows Task Manger, and CRON. Recommended: CS 121, IS 262 or equivalent. Prerequisite: Applied BAS degree students only. (SFCC)

ISIT 470 - Systems Analysis and Design (5 cr)
This course provides the opportunity to design, implement, and document the system development cycle in an organizational context. Course includes analysis of current systems, logical and physical systems design, program development, testing, implementation, maintenance, and documentation. Prerequisite: Applied BAS degree students only. (SFCC)

ISIT 475 - Capstone Internship (5 cr)
The capstone internship course offers students the opportunity to integrate their academic studies and apply their knowledge to real world scenarios. The applied approach to blend classroom exercises with actual support cases will finalize our student's learning experience. This course is designed to help our students make the final connection between the concepts taught by instructors and how their skills will be used in their careers. This is a PASS/FAIL course. Prerequisite: Applied BAS degree students only. (SFCC)

INTEGRATED BUSINESS AND ENTREPRENEURSHIP PROGRAM

IBE 201 - Integrated Business and Entrepreneurship Principles I (10 cr)
The IBE Principles I course offers a hands-on approach to training future business leaders and entrepreneurs. College instructors and local business and community leaders guide student teams through the process of identifying a business product or service, conducting market research, and developing a business plan outline. This program is limited to individuals who have received permission of Program Director and have completed IBE application. (SCC)

IBE 202 - Integrated Business and Entrepreneurship Principles II (5-10 cr)
The IBE Principles II course offers a hands-on approach to training future business leaders and entrepreneurs. College instructors and local business and community leaders guide student teams through development and management of business operations, including accounting systems, understanding legal and regulatory issues, and identifying and securing material resources. This course may be repeated twice for a maximum of 10 credits. Prerequisite: IBE 201 or instructor permission. (SCC)

IBE 203 - Integrated Business and Entrepreneurship Principles III (10 cr)
The IBE Principles III course offers a hands-on approach to training future business leaders and entrepreneurs. College instructors and local business and community leaders guide student teams through the creation and execution of a marketing plan and management of human resources. This course concludes with a capstone team presentation of the business plans developed throughout the IBE program. Prerequisite: IBE 202 or instructor permission. (SCC)

INTERIOR DESIGN

INTDS 105 - Design Drawing (4 cr)
Design drawing is a beginning drawing class that offers design students a strong introduction to drawing skills needed in their profession. The class emphasizes the development of close observation skills and composition as students experience the fundamentals of drawing line, shape, light and reflection, shade and shadow, and perspective as related to interior subjects and formats. Prerequisite: Required minimum reading placement score: COMPASS 80, ASSET 40. Required minimum writing placement score: COMPASS 76, ASSET 40. (SFCC)

INTDS 106 - Sketching/ Rendering (4 cr)
Sketching/ Rendering is a course that builds on basic drawing skills learned in ART 101. Students learn to effectively communicate ideas through quick sketching in a variety of visual formats. Instruction includes a wide variety of approaches to sketching techniques, working from simple to complex subject matter including still life's, interiors and the human form. The rendering component focuses on techniques used to convey the interior color palette and materials used in interior spaces. Common industry mediums for rendering will be explored, with a strong emphasis on using rendering as a communication tool. Prerequisite: ART 101 or permission of instructor. (SFCC)

INTDS 170 - Introduction to Interior Design (3 cr)
Introduction to a wide variety of topics that pertain to the industry of interior design and professional practice. Topics covered include: history of interior design as a profession, color theory and how it influences design, interior design theory, design process, space planning fundamentals, and current design industry practices and trends. (SFCC)

INTDS 171 - Interior Design Studio I (6 cr)
Students in this course study how to apply design principles to space planning in addition to functional and aesthetic analysis of interior components. Students learn to complete a series of practical residential design problems, including social and private spaces. Activities include how to measure and draw actual spaces, and selection and incorporation of architectural materials and furniture as integral design components. Students begin to build a selection of interior projects for their portfolio using professional presentation techniques. Prerequisite: INTDS 170 (SFCC)

INTDS 172 - Interior Design Studio II (6 cr)
This course builds on knowledge gained in INTDS 171 by offering more advanced and specific, practical applications of residential environment design. It emphasizes selection of residential interior finishes, design concept development, space planning, problem solving, and functional and aesthetic factors as design components. Freehand drawing and sketching are integral to most projects. Students refine skills in working and design drawings, research methods, and the design process. Projects might include kitchen design, product research, and specification and alternative housing. Prerequisite: INTDS 171 or permission of instructor. (SFCC)

INTDS 173 - Drafting for Interior Design (4 cr)
Fundamentals of manual drafting techniques as they pertain to interior design; architectural floor plans, measurement, symbols, sections, elevations and hand lettering will be emphasized as a basis of drafting and design. Students will learn basics of designing custom casework sections and details for projects. (SFCC)

INTDS 175 - Materials of Interior Design (5 cr)
Definition and application of materials appropriate for use in interiors to include glass, wood, plastics, floor and wall coverings, metals, and building materials. Prerequisite: INTDS 170. (SFCC)

INTDS 176 - Interior Design Studio III (6 cr)
This course is designed to help students develop knowledge of universal design, barrier-free space requirements and specifications, skill in designing for persons with varying abilities, and an awareness of human needs throughout the life cycle. Learning experiences will include guest speakers, field trips, simulation techniques and teamwork. Students continue to develop and refine skills in sketching, design drawings, research methods, problem solving and design concepts. Students have opportunities to experience and master course information when they are challenged to apply the information to specific projects. Prerequisite: INTDS 172 or permission of instructor. (SFCC)

INTDS 179 - History of Interiors I (3 cr)
A survey of types of furniture and interior architectural forms common to various historical periods including antiquity, medieval, Renaissance and eastern styles. Course emphasizes the importance of design throughout history and how that influences current interior design trends, styles, and techniques. (SFCC)

INTDS 180 - History of Interiors II (3 cr)
This course builds off of the study of history and design in INTDS 179. A survey of types of furniture and interior architectural forms common to various historical periods, including Neoclassic, Victorian, Arts and Crafts, and the Modern Movement. Prerequisite: INTDS 179 or permission of instructor. (SFCC)

INTDS 184 - Drawing Communication (4 cr)
Drawing Communication is a course that builds off of basic hand drafting techniques and terminology from INTDS 173. Students will learn new skills in the area of three dimensional drawing, including technical 1 and 2 point perspective drawing, paraline drawings, and basic model building techniques. Prerequisite: INTDS 173 or permission of instructor. (SFCC)

INTDS 185 - Building Systems / Lighting (5 cr)
Introduction of specific systems within a building that directly affect the interior environment to include structural components, heating/air conditioning, electrical systems, water supply/sanitary drainage and sound/acoustic systems. Additional emphasis is placed on lighting design and it's relation to the interior environment. Prerequisite: INTDS 170 or permission of instructor. (SFCC)

INTDS 187 - Design Fundamentals Studio (4 cr)
This course focuses on 3 dimensional volume exploration through the use of different methods of graphically depicting the space. Instruction is provided in the fundamentals of perspective drawing, paraline drawing, and isometric drawing. Additionally, students will learn techniques in model building as a design and presentation tool. Prerequisite: INTDS 184. (SFCC)

INTDS 266 - Cooperative Education Seminar (1-2 cr)
For course description, see Cooperative Education. (SFCC)

INTDS 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SFCC)

INTDS 268 - Design Portfolio (4 cr)
This course examines how design communication relates to client presentation. It focuses on portfolio and interviewing skills for professional presentation. Students develop creative portfolios that capture their capabilities as well as their personal and design philosophy, in a medium of their choice. Prerequisite: INTDS 294 or permission of instructor. (SFCC)

INTDS 275 - Professional Practices (3 cr)
Students learn personal goal setting, how to establish a business plan, types of business formations, resources of advice and counsel, and how to establish an interior design practice. (SFCC)

INTDS 280 - Textiles for Interiors (3 cr)
The selection, use and care of textile fabrics for interiors based on the study of fibers, fabric construction, specific finishes and properties; emphasis on designer selection and specification of fabrics for window treatments, upholstering furniture, floor coverings and accessories. Prerequisite: INTDS or permission of instructor. (SFCC)

INTDS 281 - Interior Design Studio IV (6 cr)
Students learn the practical problem-solving techniques used in the design of commercial and public spaces. Commercial design materials and specifications are surveyed and applied to a series of interior projects requiring research, teamwork and professional presentation. Projects may include reception areas, hospitality, small office, healthcare and retail establishments. Actual projects are used as they become available. Prerequisite: Permission of instructor. (SFCC)

INTDS 282 - Interior Design Studio V (6 cr)
Students are involved with advanced work in contract and institutional design problems including research projects. Lectures are used to discuss project programming and to synthesize information gained in INTDS 281. Projects may include various international commercial spaces, hospitality and healthcare environments. Actual design projects are used when practical. Prerequisite: Permission of instructor. (SFCC)

INTDS 285 - Computer Aided Design I (4 cr)
Introduction to the basic CAD skills needed to complete 2 dimensional drawings using computer aided design software. Students will learn to navigate the graphic interface and complete floor plans, furniture plans, reflected ceiling plans, and interior elevations using industry specific software and principles. Prerequisite: INTDS 184. (SFCC)

INTDS 286 - Computer Aided Design II (4 cr)
This course builds on the skills learned in INTDS 285 and introduces more advanced design and drafting operations including 3-D design drawing using programs and techniques. Prerequisite: INTDS 285. (SFCC)

INTDS 287 - Digital Interior Design Technology (4 cr)
This course provides a working knowledge of some of the digital design computer technology used today in the interior design industry. Through practice exercises and applications, students learn the basics of digital design programs including 3D, AutoCAD and Photoshop. Course work culminates in a final project that integrates photographs, AutoCAD drawings and other images and elements using features from each of the learned digital programs. Minimum of one quarter of AutoCAD within the previous one to two years. Familiarity with the Windows environment and understanding of mouse functionality (basic AutoCAD drawing and edit commands). Basic understanding of how to specify furniture. Ability to efficiently read a floor plan. Basic understanding and familiarity with Photoshop. (SFCC)

INTDS 289 - Computer Aided Design III (4 cr)
This course builds on basic CAD skills from INTDS 285 and INTDS 286 and introduces software focusing on building information modeling (BIM) and three dimensional design. Students will learn how to use various software applications through the design process to achieve an efficient project workflow. Prerequisite: INTDS 286 (SFCC)

INTDS 290 - Sustainable Design Practices (3 cr)
This course will introduce students to the practice and design principles associated with Sustainable Design as it pertains to interior design. It is also intended to be an introduction to the Leadership in Energy and Environmental Design (LEED) certification process. The LEED design criteria and certification process is a major component of the course, and students may be eligible to take the LEED exam upon completion of the course. Topics to be covered include: benefits of sustainable design, energy and atmosphere, indoor environmental quality, innovation in design, and preparation for the LEED AP ID+C exam. (SFCC)

INTDS 294 - Adobe for Interior Design (4 cr)
This course will introduce students to the basic skills and applications of Adobe PhotoShop and Adobe InDesign as they relate to the practice and profession of interior design. Students will gain knowledge about the graphic interface, basic design tools, and practical applications of the software in the field of interior design. Prerequisite: INTDS 285. (SFCC)

INTDS 296 - Historic Preservation (3 cr)
Historic Preservation is intended to introduce the student to the history of the preservation movement in the United States, national, state and local programs available for historic structures and the methods used to document, preserve and restore older buildings. Students will participate in a Landmarks Survey of Browne's addition, group discussions, weekly assessments and a documentation assignment of their choice. Prerequisite: INTDS 179, 180. (SFCC)

INTDS 297 - Computer Aided Design IV (4 cr)
This course builds on the skills learned in INTDS 289. Students will continue working with industry standard Building Information Modeling software, learning advanced techniques. Students will learn to further integrate BIM drawings with rendering software to produce realistic three-dimensional drawing presentations. This course is intended to be project focused, applying skills and techniques to design projects and it will emphasize the interior design process while teaching the technical skills necessary to work in the field of interior design. Prerequisite: INTDS 285. (SFCC)

INTERPRETER TRAINING PROGRAM

ITP 104 - Introduction to Audiologic Rehabilitation/Habilitation (4 cr)
This course introduces the anatomy of the ear, the functions of the parts of the ear, types and function of hearing assistive devices. It is designed to furnish students with a basic understanding of the physiology, mechanics and the impact of hearing loss as well the habilitation/rehabilitation process. (SFCC)

ITP 231 - Theories of Discourse Analysis (3 cr)
This course will provide an introduction to discourse analysis as practiced by working interpreters. The primary focus will be to distinguish between different discourse analysis models and apply their ideas to the study and use of American Sign Language. Students will also be introduced to finding meaning, using appropriate ASL syntax, and how to use visualization and mind mapping for determining source message and constructing a target message. Prerequisite: ASL& 221 (SFCC)

ITP 232 - ASL Linguistic Principles (2 cr)
This course will apply linguistic theories to American Sign Language. Students will study the phonology, morphology, syntax and semantics and how they apply to and are used in ASL. Prerequisite: ASL& 221 (SFCC)

ITP 233 - Manually Coded English Systems (5 cr)
This course is designed to introduce various systems of Manually Coded English (MCE) created for working with D/deaf and hard of hearing children, including the Rochester Method, Seeing Exact English (SEE-I), Signing Exact English (SEE-II), Cued Speech, Linguistics of Visual English (LOVE), and Conceptually Accurate Signed English (CASE). The primary focus will be to build vocabulary, receptive and expressive skills, and employ English grammatical structure using Signing Exact English (SEE-II). This course introduces approximately 400 vocabulary words as well as the affixes, contractions and prefixes used in SEE-II. Prerequisite: ASL& 222, ITP 232 (SFCC)

ITP 241 - Deaf Social and Cultural Issues (5 cr)
This course is designed to provide an in-depth look at various aspects of Deaf Culture which were overviewed in ASL& 121, 122 and 123. Language, history, legal issues, cultural conflicts, and reflective views of cultural aspects of the Deaf community will be presented. Previously learned aspects of Deaf Culture will be expanded. Prerequisite: ASL& 123 (SFCC)

ITP 245 - Ethics and Principles in Educational Interpreting (5 cr)
This course focuses on human rights, decision making models, ethical decision making and principles for interpreting in educational settings. Prerequisite: ASL& 223 (SFCC)

ITP 251 - Interpreting I (5 cr)
This course is designed to prepare the student with skills to receive information auditorally or visually and express that information in an equivalent message effectively, including affect, mood and inflection, using simultaneous interpreting methodologies. Prerequisite: ASL& 223, ITP 233 (SFCC)

ITP 252 - Interpreting II (5 cr)
This course is designed to continue your preparation for exiting into an educational setting to work as an interpreter. You will continue to develop sign vocabulary appropriate for specific educational experiences, enhance receptive and expressive skills and work on speed and accuracy. You will learn to incorporate mime, physical movement, and ASL non-manual markers to assist in conveying meaning. Prerequisite: ITP 251, 261, 281 (SFCC)

ITP 253 - Interpreting III (5 cr)
In this course, you will apply simultaneous interpreting skills so as to receive visual discourse and verbally gloss information effectively, including affect, mood, and inflection; receive auditory information and express the information in equivalent appropriate ASL information, including affect, mood and inflection. You will enhance your skills in use of non-manual markers to convey auditory meaning. Prerequisite: ITP 252, 262, 282 (SFCC)

ITP 261 - Transliteration I (5 cr)
This course is designed to introduce transliterating and distinguishing between interpreting and transliterating. Students will work on sign-to-voice and voice-to-sign skills, increase vocabulary both expressively and receptively, and increase and improve grammar skills in consecutive transliterating. Prerequisite: ASL& 223, ITP 233 (SFCC)

ITP 262 - Transliteration II (5 cr)
In this course, students will increase vocabulary, enhance receptive and expressive skills and improve speed and accuracy in voice-to-sign and sign-to-voice transliterating using simultaneous methodologies. Student will receive and express information effectively, using affect, mood and inflection to match the target language to the source language. Prerequisite: ITP 251, 261, 281 (SFCC)

ITP 263 - Transliteration III (5 cr)
This course is designed to prepare student for exiting into the community to work as a transliterator in educational settings. Students will receive information in verbal and/or signed form and use appropriate transliteration procedures to relay the information, matching register, intention and content. Students will demonstrate appropriate switching techniques for both sign-to-voice and voice-to-sign, adhering to the Interpreter's Code of Professional Conduct. Prerequisite: ITP 252, 262, 282 (SFCC)

ITP 281 - Applied Interpreting I (1 cr)
First of three separate opportunities to apply interpreting/transliterating skills. This first course requires observation and voice-to-sign or sign-to-voice in a mock interpreting environment where no Deaf people will be present. The goals of this course are to strengthen stamina in interpreting, predicting skills, and ability to stay within the interpreter's Code of Professional Conduct. Prerequisite: ASL& 223, ITP 233 and concurrent enrollment in ITP 251, 261. (SFCC)

ITP 282 - Applied Interpreting II (2 cr)
This second applied interpreting experience requires experience in the following categories: Observation and voice-to-sign and/or sign-to-voice in an interpreting environment in the public arena where no Deaf people will be present. Prerequisite: ASL& 123, ITP 251, 261, 281 and concurrent enrollment in ITP 252, 262. (SFCC)

ITP 283 - Applied Interpreting III (3 cr)
This is the third practicum and requires experience in the following categories: Observation and voice-to-sign and/or sign-to-voice interpreting/transliterating in an educational environment. Students will be placed in a school program under the supervision of an experienced interpreter/transliterator. Prerequisite: ITP 252, 262, 282 and concurrent enrollment in ITP 253, 263. (SFCC)

INVASIVE CARDIOVASCULAR TECHNOLOGY

ICT 114 - Introduction to Cardiac Care (3 cr)
Introduction to the field of Cardiovascular Technology and the role of the CV Technologist. Stresses the importance of professionalism, ethical behavior, and communications. Introductory study of medical terminology as related to cardiac care. Various discussion groups and tours will be provided. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 115 - Technical Skills - CPR for Health Care Providers (1 cr)
American Heart Association version of health care provider course for CPR/AED. Required for student to enter a patient care clinical environment. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 116 - Acute Coronary Syndrome (1 cr)
A study of the nations number one killer in its acute phase. Pathophysiology of atherosclerosis. The stable versus the unstable patient. Vulnerable plaque types. STEMI versus NSTEMI patient presentations. The national door to balloon initiative. 12 lead EKG recognition of the signs of ischemia/infarct patterns. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 117 - Cardiovascular Pharm 1 (1 cr)
Introduction to cardiovascular pharmacology. A review of control of heart rate, blood pressure, and cardiac output and the common drug groups employed to manipulate these parameters. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 124 - CV Diagnostic Exams (4 cr)
A review of the examinations used today to screen for coronary artery disease. Case studies will be presented from the patient initial presentation through diagnostic workup. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 125 - Hemodynamics (2 cr)
Introduction to various forms of invasive monitoring. Emphasis is placed on the basics of hemodynamic monitoring and interpretation. Normal and pathologic examples are introduced. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 126 - Technical Skills/Reading Hemodynamics (1 cr)
Introduction to various forms of invasive monitoring. Emphasis is placed on the basics of hemodynamic monitoring and interpretation. Normal and pathologic examples are introduced. Supports concepts taught in ICT 125. Prerequisite: Permission of instructor. (SCC)

ICT 127 - Cardiovascular Pharm 2/Intravenous Therapy (1 cr)
Continuation of ICT 117 Intro to CV Pharm. Advanced Cardiac Life Support drugs are introduced. Pharmacy math is introduced. Pharmacy law is studied. Principles of IV therapy are introduced. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 128 - Technical Skills/Pharmacology/Intravenous Therapy (1 cr)
Supports ICT 127 concepts. Case studies of patients during cardiac emergencies will be evaluated for appropriate drug selection. Pharmacy math calculations will be taught. IV therapy techniques will be taught. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 129 - Basic Life Support Instructor Course (2 cr)
This course develops the instructional and technical skills required by the American Heart Association to become a Basic Life Support Instructor and to become a member of the campus CPR club. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 134 - Cath Lab Procedures (3 cr)
This course is an overview of cardiovascular invasive diagnosis and intervention. Includes an introduction to the cardiac catheterization lab through the study of: Catheterization protocols and equipment. Angiographic anatomy of the cardiovascular system, and invasive cardiac measurements and calculations. Labs and tours will be provided. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 135 - Technical Skills Cath Lab Procedures (1 cr)
This is the lab supporting ICT 134. Skills taught will be procedural tables and equipment used in cardiac catheterization. Simulations of vascular access techniques and cannulation of model vascular systems will be utilized. Computer analysis of recorded hemodynamic parameters will be introduced by use of a physiologic monitor. Injector system parameters will be taught. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 138 - Cardiovascular Physiology (4 cr)
This course is an advanced study of normal cardiovascular physiology presented in a series of physician lectures and lab demonstrations with applications in invasive and noninvasive cardiology. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 139 - Radiation Safety (2 cr)
A study of radiation production and safety measures for health care providers. This class will prepare the student to work in the fluoroscopic and cine imaging environment of the cardiac catheterization laboratory. Patient and staff exposure protection are emphasized. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 140 - Surgical Asepsis (1 cr)
Surgical asepsis for health care providers. This class will prepare the student to create a sterile field. Gown and glove themselves and others. Procedural awareness of working in a sterile field will be developed. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 141 - Technical Skills/Surgical Asepsis (1 cr)
This class supports ICT 140. The skills of surgical asepsis and infection control are taught. Working in a sterile field and gowning and gloving are taught. Develop a surgical conscience. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 144 - Patient Care and Assessment (4 cr)
Develop patient care skills specific to patients with cardiovascular disease. Read a medical chart to identify risks for invasive procedures. Understand the expected response of the physician to various patient presentations. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 145 - Technical Skills/Cath Lab Boot Camp/Patient Care (4 cr)
This class prepares the student to enter the clinical environment of the cardiac catheterization laboratory. Patient care skills and procedural steps will be practiced. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 146 - Cath Lab Clinical I (6 cr)
Initial clinical experience of 160 clock hours. Focus on diagnostic cardiac catheterization procedural participation. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 203 - Advanced Cardiac Life Support Course (2 cr)
This course develops the cognitive skills required for advanced cardiac life support required by the American Heart Association. Combined with another lab portion and mega code allows the student to hold an ACLS card. Prerequisite: Completion of previous quarter. (SCC)

ICT 204 - Advanced Cardiac Life Support Technical Skills Lab (1 cr)
This course develops the technical skills required by the American Heart Association, when combined with the lecture course to hold an ACLS card. Prerequisite: Completion of previous quarter. (SCC)

ICT 213 - Electrophysiology (4 cr)
Students are introduced to the field of cardiovascular technology, basic cardiac anatomy; physiology and electrophysiology with emphasis on the performance and interpretation of the electrocardiogram. Laboratory experiences to support these concepts also are included. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 214 - Cardiac Interventions/PCI (3 cr)
This course will focus on the percutaneous interventions performed in today's cardiac cath lab. Including, but not limited to: Stenting, balloon angioplasty, intravascular ultrasound, atherectomy, thrombectomy, ocular coherence tomography, and other techniques. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 215 - Interventional Radiology (2 cr)
This class will explore the cardiovascular diagnostic and interventions in non-cardiac vascular beds. This field is known as "Special Procedures" or Interventional Radiology. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 216 - Electrophysiology 1 Introduction to Devices (2 cr)
This class will introduce the sub-specialty of electrophysiology (EP), this is the first of 2 classes. In this class we will investigate the role of EP in cardiology. A study of diagnostic protocols and implantable devices like pacers and defibrillators will be introduced. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 217 - Technical Skills/PCI/EP/Special Equipment (2 cr)
This skills lab supports the ICT 214, 215 and 216 didactic content. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 218 - Cath Lab Clinical II (5 cr)
This course continues to develop the skills from Cath Lab Clinical I. Students move into more complex procedures, such as percutaneous coronary interventions. Including, but not limited to: Stents, balloon angioplasty, intracoronary ultrasound. Monitor, scrub and circulator roles should be practiced. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 219 - Cardiopulmonary Pathophysiology (1 cr)
This course describes the pathophysiology of pulmonary diseases, their diagnosis and treatment. Prerequisite: Completion of previous quarter. (SCC)

ICT 224 - Advanced Practices/Management (5 cr)
This class will focus on advanced practices such as left ventricular assist devices and support of cardiovascular surgery. Another aspect of this class will be to define the operational structure of the health care facility. For profit/not for profit hospitals will be studied. Private physician laboratory management models will be defined. Hospital chain of command will be defined. The emphasis will be for the student to understand and excel in multiple working environments. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 225 - Pediatric Cath (1 cr)
The role of the cath lab in caring for patients with cardiac congenital anomalies will be explored. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 226 - Statistics and Research (1 cr)
Introduction to the medical research protocols and the FDA approval process for drugs and devices. A review of statistics as utilized in medical research. Evaluation of the meaning of scientific reports. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 227 - Electrophysiology 2 Interventions (2 cr)
This class is a continuation of ICT 216 Introduction to EP. EP lab interventions for treatment of cardiac arrhythmias are discussed. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 228 - Technical Skills/Peds/Special Procedures/EP (2 cr)
This class supports the didactic content of ICT 224, 225, 226 and 227. Technical skills in the areas of cardiac assist devices, pediatric interventional devices, EP interventional devices. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 229 - Cath Lab Clinical III (5 cr)
This course continues to develop the skills from Cath Lab Clinical II. Students move into more complex procedures and coronary interventions. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 234 - Board Registry (RCIS) Prep Blackboard (4 cr)
This class will prepare the student to sit for the national registry appropriate for work in the cardiac cath lab. This being the RCIS (Registered Cardiovascular Invasive Specialist) registry offered by CCI (Cardiovascular Credentialing International). Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

ICT 235 - Cath Lab Clinical IV (12 cr)
This course continues to develop the skills from Cath Lab Clinical III. Students move into more complex procedures and coronary interventions. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

JAPANESE

JAPN& 121 - Japanese I (5 cr)
Elementary Japanese is an introduction to Japanese language; conversation, composition, grammar and written Japanese. Discussion of culture and traditions. (SFCC)

JAPN& 122 - Japanese II (5 cr)
Elementary Japanese is an introduction to Japanese language; conversation, composition, grammar and written Japanese. Discussion of culture and traditions. Prerequisite: JAPN& 121 or permission of instructor. (SFCC)

JAPN& 123 - Japanese III (5 cr)
Elementary Japanese is an introduction to Japanese language; conversation, composition, grammar and written Japanese. Discussion of culture and traditions. Prerequisite: JAPN& 122 or permission of instructor. (SFCC)

JAPN& 221 - Japanese IV (5 cr)
Students increase their fluency and listening comprehension, master 200 kanjis and their "on" and "kun" readings, and learn to read short articles in newspapers and magazines. Prerequisite: JAPN& 123 or permission of instructor. (SFCC)

JAPN& 222 - Japanese V (5 cr)
Students increase their fluency and listening comprehension, master 200 kanjis and their "on" and "kun" readings, and learn to read short articles in newspapers and magazines. Prerequisite: JAPN& 221 or permission of instructor. (SFCC)

JAPN& 223 - Japanese VI (5 cr)
Students increase their fluency and listening comprehension, master 200 kanjis and their "on" and "kun" readings, and learn to read short articles in newspapers and magazines. Prerequisite: JAPN& 222 or permission of instructor. (SFCC)

JOURNALISM

JOURN 101 - College Newspaper Production I (3-5 cr)
Gain practical writing, layout and publishing experience by working on the college newspaper. Students plan, write, edit and design the newspaper that informs, educates and entertains the students, faculty and staff of the college. The newspaper is the creation of students who may earn from 3 to 5 credits. (SCC, SFCC)

JOURN 102 - College Newspaper Production II (3-5 cr)
This course helps students to further refine the writing, layout, and publishing skills developed in JOURN 101 by working on the college newspaper. Students plan, write, edit and design the newspaper that informs, educates and entertains the students, faculty and staff of the college. The newspaper is the creation of students who may earn from 3 to 5 credits. Prerequisite: Must have earned at least a 2.0 or better in JOURN 101. (SFCC)

JOURN 103 - College Newspaper Production III (3-5 cr)
This course helps students to further refine the writing, layout, and publishing skills developed in JOURN 102 by working on the college newspaper. Students plan, write, edit and design the newspaper that informs, educates and entertains the students, faculty and staff of the college. The newspaper is the creation of students who may earn from 3 to 5 credits. Prerequisite: Must have earned at least a 2.0 or better in JOURN 102. (SFCC)

JOURN 110 - Mass Media (5 cr)
Journalism 110 is an objective, thoughtful view of the mass media designed to help students better understand the impact these media have on our culture and professional lives. In addition to coverage of the traditional media (newspapers, television, radio, film, books), students will venture into emerging media (blogs, podcasts, independent audio documentary). Students will also examine how journalistic ethics, advertising, ownership, access, and the business of media influence modern cultural attitudes and perceptions of reality. (SCC, SFCC)

JOURN 201 - College Newspaper Production IV (3-5 cr)
This course helps students to further refine the writing, layout, and publishing skills developed in JOURN 103 by working on the college newspaper. Students plan, write, edit and design the newspaper that informs, educates and entertains the students, faculty and staff of the college. The newspaper is the creation of students who may earn from 3 to 5 credits. It is strongly recommended that a student have completed JOURN 220 before registering for this course. Prerequisite: SFCC only-Must have earned at least a 2.0 or better in JOURN 103. (SCC, SFCC)

JOURN 202 - College Newspaper Production V (3-5 cr)
This course helps students to further refine the writing, layout, and publishing skills developed in JOURN 201 by working on the college newspaper. Students plan, write, edit and design the newspaper that informs, educates and entertains the students, faculty and staff of the college. The newspaper is the creation of students who may earn from 3 to 5 credits. It is strongly recommended that a student have completed JOURN 220 before registering for this course. Prerequisite: Must have earned at least a 2.0 or better in JOURN 201. (SFCC)

JOURN 203 - College Newspaper Production VI (3-5 cr)
This course helps students to further refine the writing, layout, and publishing skills developed in JOURN 202 by working on the college newspaper. Students plan, write, edit and design the newspaper that informs, educates and entertains the students, faculty and staff of the college. The newspaper is the creation of students who may earn from 3 to 5 credits. It is strongly recommended that a student have completed JOURN 220 before registering for this course. Prerequisite: Must have earned at least a 2.0 or better in JOURN 202. (SFCC)

JOURN 220 - Introduction to News Writing (5 cr)
The emphasis of this course is on writing clear, concise articles for print or broadcast media. Students learn the basic techniques of organizing news and feature articles. In addition, interviewing skills, note taking and copy reading are stressed. (SCC, SFCC)

JOURN 221 - Digital News Production I (3 cr)
This is the first course in a three-course sequence. It provides students with a news lab environment in which they can apply digital news production skills in a deadline-based setting that mirrors industry. The course focuses on the production of video-based news content, the application of web fundamentals in a news environment and the application of multimedia design skills. Prerequisite: JOURN 103 or 225 or PHOTO 200 or permission of the instructor. (SFCC)

JOURN 222 - Digital News Production II (3 cr)
This course, the second in a three-course sequence, will provide students with a news lab environment in which they can apply digital news production skills in a deadline-based setting that mirrors industry. The course will focus on helping students develop skills for on-air presentation of news content, creating web page templates, creation of motion-based news packages, advanced video and audio editing and the development of an online, interactive portfolio. Prerequisite: JOURN 221. (SFCC)

JOURN 223 - Digital News Production III (3 cr)
This course, the third in a three-course sequence, will provide students with a news lab environment in which they can apply digital news production skills in a deadline-based setting that mirrors industry. The course will focus on all aspects of producing a news broadcast for the Web, on-location live-to-web production, search engine optimization (S.E.O.), podcast development, and the creation of web tutorials and screencasts. Prerequisite: JOURN 222. (SFCC)

JOURN 225 - Multimedia Journalism (5 cr)
This course introduces students to the fundamentals of storytelling in non-print media. By building on the basic newsgathering, interviewing and storytelling skills developed in JOURN 220, students will explore how various media can be employed to help reach disparate audiences in new and innovative ways. Prerequisite: JOURN 220. (SCC, SFCC)

LEGAL ADMINISTRATIVE ASSISTANT

LSEC 216 - Legal Office Procedures (5 cr)
Students will build a foundation in technology and legal applications, and continue to develop vocabulary to prepare them to work effectively in law or legally related offices. Students will discuss ethics as they apply to the law office, explore electronic discovery, and develop self-reliance in relation to legal software programs, confidentiality, virtual law offices, and positive human relations techniques. Critical thinking skills are addressed. Prerequisite: LSEC 239 with a 2.5 grade or higher, or permission of instructor. (SCC)

LSEC 233 - Legal Office Practice (5 cr)
Students study the integration of decision-making with skills in the areas of legal software, timekeeping and billing, PDF file creation, database management, electronic discovery, and litigation support software; the course also explores how legal professionals manage offices and deliver services to clients. Prerequisite: LSEC 239 with a 2.5 grade or higher, or permission of instructor. (SCC)

LSEC 236 - Legal Terminology (5 cr)
Students learn legal terminology and study ethics, the court system, wills, probates and guardianships, partnerships and corporations, and real estate law. (SCC)

LSEC 237 - Legal Terminology (5 cr)
Students learn legal terminology and study litigation, torts, contracts, criminal law, family law, community property, and bankruptcy. (SCC)

LSEC 239 - Legal Formatting (5 cr)
Students develop skills on personal computers, competencies in the production of legal documents used in legal and legally related offices and courts, and critical thinking skills in legal applications. Prerequisite: Keyboarding skills of 40 wpm on a 3-minute timing with 6 errors or less; or a 2.5 or higher in ENGL& 101. (SCC)

LSEC 244 - Legal Machine Transcription (5 cr)
Students develop proficiency in producing rough draft and usable legal copy from voice transcribers. Prerequisite: LSEC 239 with a 2.5 grade or higher, or permission of instructor. (SCC)

LSEC 285 - Legal Office Internship (3 cr)
Students apply their office and human relations skills during this 99-hour internship at a law office or law-related office or court. Intern sites meet individual needs of students and complement their program. Grading option: Pass/fail. Prerequisite: Completion of LSEC 233, 236, 237, 239, and 244; all classes require a grade of 2.5 or higher, or permission of instructor. (SCC)

LIBRARY AND INFORMATION SERVICES

LMLIB 100 - Introduction to Library Organizations and Careers (3 cr)
Students are introduced to the historical, functional, and organizational structure of libraries. Current library services; philosophy, and terminology are emphasized. Students demonstrate knowledge about the role of the library technician as a member of library organizations. Students will explore professional organizations, employment outlook and identify a possible career path. (SFCC)

LMLIB 115 - Introduction to Library Organizational Systems (5 cr)
Students learn various systems used to organize and recall library materials with an emphasis on classification systems; filing rules; searching library catalog records; and an introduction to database structure. (SFCC)

LMLIB 116 - Introduction to Circulation Systems and Services (5 cr)
Students are introduced to library circulation systems and services by engaging in practical experience using software. Students are introduced to policies associated with circulation services. (SFCC)

LMLIB 117 - Access and Outreach Services (5 cr)
Students are introduced to common policies and procedures covering access services including: InterLibrary Loan, library security issues, and collection maintenance. Students also are introduced to outreach services in public libraries which includes customer service issues and best practices serving various types of users. (SFCC)

LMLIB 125 - School Libraries and Media Centers (5 cr)
This is an introductory course for students interested in school library and media centers management and materials. An overview of the role and function of school libraries and media centers; information literacy standards and media materials management are presented. (SFCC)

LMLIB 126 - Library Technology and Services for Educational Support (3 cr)
Students are introduced to the role of libraries and technology in providing support in the educational environment. Technology literacy and a review of library-based online services for educational support will be explored. (SFCC)

LMLIB 135 - Children's Literature and Library Services (5 cr)
Fairy tales and other works emerging from oral tradition, picture books, poetry, juvenile novels, non-fiction and informational books will be evaluated in terms of what they have to offer to children. Students will read and review children's literature and view audio-visual media associated with selected children's stories. Students will create presentations using children's literature and examine library services designed for children. (SFCC)

LMLIB 220 - Technical Services II: Cataloging (5 cr)
Students will prepare bibliographic descriptions based on Anglo-American Cataloging Rules, 2nd ed., Revised, with emphasis on cataloging from copy. Some original cataloging is covered also, including assignment of main and added entries, assignment of subject headings and classification numbers and assignment of Cutter numbers. (SFCC)

LMLIB 222 - Reference and Information Services (5 cr)
Students are introduced to the role of reference services in libraries. This includes the reference interview; reference tools and resources; evaluating, searching, and providing access to information resources as part of the research process and evaluation of materials as part of the evolution of library collections. (SFCC)

LMLIB 224 - Research Topics and Projects in Library Service (3 cr)
The course content is designed to meet specific skill levels for individual students. The course content varies depending on research and/or project and the number of credits chosen and established guidelines allow students to research special areas of interest. Students have the opportunity to refine or expand their library technician skills working on an independent project or topic. All research and/or projects must be agreed upon by the instructor and student. Prerequisite: Permission of instructor. (SFCC)

LMLIB 280 - Library Employment and Workplace Issues (3 cr)
Students study areas such as self-awareness and assessment, career awareness and exploration, career decision making, career planning and placement, success factors and attitudes on the job, motivation and initiative, human behavior and relations, and employability skills. Prerequisite: Permission of instructor/coordinator. (SFCC)

LMLIB 281 - Library Paraprofessional Practicum (3 cr)
Students are placed in a library, school, archives or other setting commensurate with their intended career goal. Key professional competencies are developed incorporating elements of teaching and learning. Integration of theory and practice is accomplished through instructor-led content and completion of a practicum project, either online or on-site in the field. Permission of instructor required. (SFCC)

LMLIB 288 - Cooperative Education Work Experience (No Seminar) (1-3 cr)
For course description, see Cooperative Education. (SFCC)

MACHINIST/CNC TECHNOLOGY

MACH 106 - Blueprint Reading (7 cr)
Students learn to demonstrate basic competency in blueprint reading. (SCC)

MACH 107 - Precision Measurement and Tools (3 cr)
Students learn to demonstrate basic competency in the use of precision measurement and tools. (SCC)

MACH 113 - Beginning Blueprint (2 cr)
Students learn basic blueprint reading with emphasis on the accurate interpretation of blueprints and sketches. Prerequisite: Concurrent enrollment in MACH 114, 115 or permission of instructor. (SCC)

MACH 114 - Introduction to Machine Shop I (5 cr)
Students are introduced to the manufacturing processes and the equipment and hardware used to shape and form materials. Practical application includes basic layout techniques, the use of measuring tools and shop safety practices. (SCC)

MACH 115 - Introduction to Machine Tools (5 cr)
Students are introduced to the tools, equipment and processes common to a machine shop with emphasis on their proper selection and use. Prerequisite: Concurrent enrollment in MACH 113, 114 or permission of instructor. (SCC)

MACH 116 - Introduction to Machine Shop II (5 cr)
This course continues with the applications introduced in MACH 114 emphasizing the manufacturing processes, equipment and hardware used to shape and form materials. Basic layout techniques, the use of measuring tools and shop safety practices are stressed. (SCC)

MACH 123 - Machine Tool Operations I (6 cr)
Students are introduced to theory and practical shop experience used in basic machining operations with emphasis on the safe operation of sawing and drilling machines. Prerequisite: MACH 113, 116. (SCC)

MACH 124 - Blueprint II (2 cr)
Students learn theory and practical applications in the basics of shop sketching. Basic lines and forms and freehand lettering are emphasized. Prerequisite: MACH 113 and concurrent enrollment in MACH 123, 125 or permission of instructor. (SCC)

MACH 125 - Machine Shop Math I (1-2 cr)
Students are introduced to the math principles and applications to machine shop procedures. Emphasis range from the calculation of percentages to practical algebra. Prerequisite: MACH 114 and concurrent enrollment in MACH 123, 124 or permission of instructor. (SCC)

MACH 126 - Machine Tool Operations II (7 cr)
This course continues with the concepts introduced in MACH 123. Students acquire practical shop experience in basic machining operations. The safe operation of sawing and drilling machines is emphasized. Prerequisite: MACH 113, 116. (SCC)

MACH 133 - Machine Tool Operations III (7 cr)
This course emphasizes the safe operation of lathes and their accessory equipment. Prerequisite: MACH 123, 126. (SCC)

MACH 134 - Machine Shop Math II (1-2 cr)
This course continues with the concepts introduced in MACH 125. Geometric construction and basic concepts of trigonometry are emphasized. Prerequisite: MACH 125 and concurrent enrollment in MACH 133, 135 or permission of instructor. (SCC)

MACH 135 - Blueprint III (2 cr)
This course continues with the concepts introduced in MACH 113 and 124. Practical experience in the interpretation and generation of special view drawings is emphasized. Prerequisite: MACH 124 and concurrent enrollment in MACH 133, 134 or permission of instructor. (SCC)

MACH 136 - Machine Tool Operations IV (7 cr)
This course continues with the concepts introduced in MACH 133. Practical applications in the safe operation of lathes and their accessory equipment are emphasized. Prerequisite: MACH 123, 126. (SCC)

MACH 138 - Manufacturing Standards/Quality (3 cr)
Students will become aware of the manufacturing standards that are used in composites and aerospace manufacturing industries. Students will learn how to chart Statistical Process Control data and utilize that information to solve problems in the manufacturing process. Students will explore the Material Data Sheet system to understand safety precautions, handling methods and disposal requirements of materials used in the composites industry. In the lab portion of the class students will have an opportunity to apply this theory on practical exercises. Lab time will also be devoted to the use and understanding of Quality Inspection tools used in advanced part inspection. (SCC)

MACH 140 - Blueprint 1 (2 cr)
Students learn basic blueprint reading with emphasis on the accurate interpretation of blueprints and sketches. (SCC)

MACH 141 - Machine Theory I (2 cr)
Students are introduced to shop safety, mechanical hardware, drilling machine, bandsaw machine and engine lathe theory. (SCC)

MACH 142 - Shop I (8-10 cr)
Students are introduced to the manufacturing processes, equipment and hardware used to shape and form materials. Basic layout techniques, the use of measuring tools and shop safety practices are stressed, as well as basic operations on the Engine Lathe, drill press, and bandsaw. (SCC)

MACH 143 - Machine Tools (2 cr)
Students are introduced to the hand tools, measuring tools, equipment and processes common to a machine shop with emphasis on their proper selection and use. (SCC)

MACH 150 - Blueprint II (2 cr)
Students learn theory and practical applications in the basics of shop sketching. Basic lines and forms and freehand lettering are emphasized. Prerequisite: MACH 140. (SCC)

MACH 151 - Machine Theory II (2 cr)
The theory of manual milling machines and the operations performed on these machines are introduced. Vertical bandsaw setup and operation is stressed as well as job planning. (SCC)

MACH 152 - Shop II (8-10 cr)
This course continues from MACH 142, diving deeper into the operation of the engine lathe and its uses. The vertical milling machine is introduced in this course and further instruction in the use of measuring tools and shop safety practices are stressed. (SCC)

MACH 153 - Shop Math (2 cr)
Students are introduced to the math principles and applications to machine shop procedures. Emphasis range from the calculation of percentages to practical algebra, geometry to basic concepts of trigonometry. (SCC)

MACH 160 - Blueprint III (2 cr)
This course continues with the concepts introduced in MACH 140 and 150. Practical experience in the interpretation and generation of special view drawings is emphasized. Prerequisite: MACH 140, 150. (SCC)

MACH 161 - Machine Theory III (2 cr)
Precision grinding and horizontal machine theory are covered as well as intermediate lathe operations. (SCC)

MACH 162 - Shop III (8-10 cr)
This course continues with the concepts introduced in MACH 152 with application on the engine lathe and its attachments. Further milling machine techniques are emphasized. (SCC)

MACH 163 - Materials Science (2 cr)
Materials Science covers composition of standard steels, the AISI numbering system, basic metallurgy and an introduction to composite materials and their manufacturing processes. (SCC)

MACH 201 - Manufacturing Economics (1 cr)
This course is a study of the principles of manufacturing business economics. Profit, customer satisfaction, labor and industries, costs, value added, unit cost, employee benefits and overhead are emphasized. (SCC)

MACH 202 - Manufacturing Resource Management (1 cr)
This course is a study of the principles of manufacturing focusing on production rates, inventory control, budgeting, computer applications and scheduling. (SCC)

MACH 210 - Blueprint IV (2 cr)
This course presents theory and practical applications in the identification of structural shapes on blueprints. The generation of dimensioned working sketches of specific parts is emphasized. Prerequisite: MACH 160 or permission of instructor. (SCC)

MACH 211 - CNC Theory I (2 cr)
Students learn concepts required to accurately program and setup a CNC Milling Machine. Hand writing basic G & M Code programs using the manual method will be emphasized. Prerequisite: MACH 161 or permission of instructor. (SCC)

MACH 212 - Shop IV (8-10 cr)
Students work in the Machine shop environment gaining hands on experience programming, setting up, and operating CNC Mills. Prerequisite: MACH 162 or permission of instructor. (SCC)

MACH 213 - GD&T (2 cr)
This course is an introduction to the Geometric Dimensioning and Tolerancing Y14.5-2009 standard. Students will learn the symbols used and how to interpret them. Inspection methods and techniques required to meet the GD&T requirements will be emphasized. Prerequisite: MACH 160 or permission of instructor. (SCC)

MACH 220 - Blueprint V (2 cr)
This course continues to develop the students' ability to interpret mechanical drawings. Students will study more complex multi-scale and assembly drawings. Prerequisite: MACH 210 or permission of instructor. (SCC)

MACH 221 - CNC Theory II (2 cr)
Students learn concepts required to accurately program and setup a CNC Lathe. Hand writing basic G & M Code programs using the manual method will be emphasized. Prerequisite: MACH 211 or permission of instructor. (SCC)

MACH 222 - Shop V (10 cr)
Students work in the machine shop environment gaining hands on experience programming, setting up, and operating CNC Lathes. Prerequisite: MACH 212 or permission of instructor. (SCC)

MACH 223 - Quality Control (2 cr)
This course prepares students to demonstrate competency in areas of manufacturing including qualify control, part inspection, and precision measurements. Fundamentals of Statistical Process Control are emphasized. (SCC)

MACH 230 - Blueprint VI (2 cr)
This course develops the students' ability to interpret advanced mechanical drawings. Complex assemblies and close tolerance parts with Geometric Dimensioning and Tolerance callouts will be examined. Prerequisite: MACH 220 or permission of instructor. (SCC)

MACH 231 - CNC Theory III (2 cr)
Students learn more advanced concepts required to accurately program and setup CNC Mills and Lathes. Multiple work stations and multiple axis programming will be emphasized. Prerequisite: MACH 221 or permission of instructor. (SCC)

MACH 232 - Shop VI (10 cr)
Students work in the machine shop environment gaining hands on experience programming, setting up and operating CNC mills and lathes. Prerequisite: MACH 222 or permission of instructor. (SCC)

MACH 233 - Manufacturing Economics (2 cr)
This course introduces the basic principles of the operation of a small manufacturing company. (SCC)

MACH 243 - Machine Tool Operations V (8 cr)
This course emphasizes practical applications in the safe operation of vertical and horizontal milling machines. Prerequisite: MACH 133, 136. (SCC)

MACH 244 - Blueprint IV (2 cr)
This course presents theory and practical applications in the identification of structural steel shapes on blueprints. The generation of dimensioned working sketches of specific parts is emphasized. Prerequisite: MACH 125 and concurrent enrollment in MACH 243 or permission of instructor. (SCC)

MACH 246 - Machine Tool Operations VI (5 cr)
This course continues with the concepts introduced in MACH 243. Practical applications in the safe operation of vertical and horizontal milling machines are emphasized. Prerequisite: MACH 133, 136. (SCC)

MACH 247 - CNC Theory (5 cr)
Students learn to demonstrate basic competency in CNC programs and the operation of mills and lathes. (SCC)

MACH 248 - CNC Lab (5-7 cr)
This course continues with the concepts introduced in MACH 247 to prepare students to demonstrate basic competency in the manufacturing of CNC programs and the operation of mills and lathes. (SCC)

MACH 249 - Quality Control (4 cr)
This course prepares students to demonstrate competency in areas of manufacturing including quality control and part inspection, precision measurements, and the engineers' interpretation of drawings. (SCC)

MACH 250 - CNC Production Theory (5 cr)
This course prepares students to demonstrate competency in areas of the manufacturing industry that include basic CNC programming, intermediate CNC milling and turning operations, and CNC production. (SCC)

MACH 251 - CNC Production Lab (7 cr)
This course continues with the concepts introduced in MACH 250 preparing students to demonstrate competency in areas of the manufacturing industry that includes basic CNC programming, intermediate CNC milling and turning operations, and CNC production. (SCC)

MACH 254 - Blueprint V (2 cr)
This course introduces practical applications in the generation of multiscale, assembly and detail drawings. Prerequisite: MACH 244. (SCC)

MACH 257 - Computer Aided Machining (2-5 cr)
Students are introduced to the theory and practice of machine processes controlled by computers. Milling center and turning center functions, the role of the computer in controlling machine functions, and basic tool processes and machining practices are emphasized. Prerequisite: Machinist experience or permission of instructor. (SCC)

MACH 258 - Advanced Computer Aided Machining (2-5 cr)
This course continues with the concepts introduced in MACH 257 with emphasis on the practical application of producing two-dimensional drawings in computer aided design (CAD), creating a computer aided manufacturing post-process of the drawing, transferring the output to a milling center, and finalizing the practices with a completed machine product from stock materials. Prerequisite: MACH 257 or permission of instructor. (SCC)

MACH 261 - CNC Production Applications (6 cr)
This course focuses on modern computer-numeric control (CNC) production techniques common to small and large manufacturers. Students participate in actual production applications on CNC milling and turning centers and the use of self-developed computer programs. (SCC)

MACH 262 - CNC Programming (3 cr)
Students learn to program CNC machining centers using computer languages common to the industry. (SCC)

MACH 266 - Cooperative Education Seminar (1-2 cr)
For course description, see Cooperative Education. (SCC)

MACH 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SCC)

MACH 288 - Cooperative Education Work Experience (No Seminar) (1-18 cr)
For course description, see Cooperative Education. (SCC)

MANAGEMENT

MMGT 100 - Supervised Volunteer Experience (1-3 cr)
Approved supervised volunteer community service experience in a nonprofit, government or service organization that teaches students the value of contributing back to the community in which they live and work. Students may receive variable credits for hours of approved supervised experience during a quarter. One credit is given for every 33 hours of volunteer experience documented. Grade option: Pass/fail. (SCC)

MMGT 101 - Principles of Management (5 cr)
Fundamental principles of management as applied to business enterprise. Actual business situations are studied by applying basic management principles. (SCC, SFCC)

MMGT 105 - Small Business Marketing (2 cr)
Formerly SBM 105. Introduces students to marketing by examining marketing problems facing the small business owner today. Helps the small business owner better understand how to afford marketing research, select a great location, determine methods of pricing goods and services for profit, and understand customer buying habits. (SFCC)

MMGT 106 - How to Start a Small Business (5 cr)
Formerly SBM 101. This course offers an interesting and realistic look at the scope and trends of small business, the role and future of small business in our economy, and the advantages and disadvantages of owning a business. The main causes for business failure and success, the importance of preparing a business plan, and resources that are available to help the small business owner succeed also are addressed. The class is based on current information and hands-on participation by the student. (SFCC)

MMGT 125 - Social Media Marketing (5 cr)
This course provides an introduction to social media marketing (SMM). Special emphasis is placed on creating a social media marketing plan which uses social media platforms to positively influence consumers toward a brand, product, or service. (SCC, SFCC)

MMGT 126 - Search Engine Marketing (5 cr)
Search Engine Marketing is the process of promoting a Web site through both search engine optimization and search advertising. This course examines ways to improve traffic to the Web site by improving the ranking in search engine results and paid advertising. (SFCC)

MMGT 128 - Social Media Marketing Campaign (5 cr)
Students will complete a social media marketing campaign for an organization. Students will identify the organization's target market and the social media portals where they participate; set measurable goals; design innovative strategies and select appropriate social media portals, craft compelling content to attract and influence the intended audience, monitor and measure progress on a regular basis, and tune the social media marketing campaign to account for the ever changing nature of consumer tastes and the social Web. (SFCC)

MMGT 150 - Principles of Retail Merchandising (5 cr)
Careers and opportunities in the retail field; an overview of store location, retail organization and merchandise management including promotion, pricing, salesmanship and inventory control methods. (SFCC)

MMGT 181 - Leadership Training-DEC (1-5 cr)
Students participate in practical applications of management and leadership techniques. These courses are associated with membership in Delta Epsilon Chi, a division of DECA. (SCC)

MMGT 182 - Leadership Training-DEC (1-5 cr)
Students participate in practical applications of management and leadership techniques. These courses are associated with membership in Delta Epsilon Chi, a division of DECA. (SCC)

MMGT 183 - Leadership Training-DEC (1-5 cr)
Students participate in practical applications of management and leadership techniques. These courses are associated with membership in Delta Epsilon Chi, a division of DECA. (SCC)

MMGT 191 - Leadership Training-DEC (1-5 cr)
Students participate in practical applications of management and leadership techniques. These courses are associated with membership in Delta Epsilon Chi, a division of DECA. (SCC)

MMGT 192 - Leadership Training-DEC (1-5 cr)
Students participate in practical applications of management and leadership techniques. These courses are associated with membership in Delta Epsilon Chi, a division of DECA. (SCC)

MMGT 193 - Leadership Training-DEC (1-5 cr)
Students participate in practical applications of management and leadership techniques. These courses are associated with membership in Delta Epsilon Chi, a division of DECA. (SCC)

MMGT 205 - Small Business Planning (5 cr)
The preparation of a small business plan for starting a small business. The plan will include business description, characteristics of the entrepreneur and the business planner, ownership, analysis of the industry, target customers and location, start-up costs, financial projections, and necessary licenses. The design of the course is to have a document to present to a possible lender or investor. (SCC)

MMGT 211 - Marketing (5 cr)
Introduction to the field of merchandise marketing; distribution of goods and services from producer to consumer and the place of marketing in our economy. (SCC, SFCC)

MMGT 212 - Retailing (5 cr)
Fundamentals of retailing including retail store operation, organization, merchandise management, sales promotion, customer relations and control. Prerequisite: BUS& 101 or permission of instructor. (SCC)

MMGT 217 - Advertising Basics (3 cr)
This course is designed to increase the student's understanding of advertising and sales promotion. The objective will be accomplished in three ways: 1)through the use of the text which outlines the concepts and problems of retail advertising and sales promotion; 2) through lectures and class discussions; and 3) through a team project that students will develop for a draft advertising campaign. (SFCC)

MMGT 218 - Fundamentals of Advertising (5 cr)
Introduction to the field of advertising: Planning, directing and coordinating advertising functions as a tool of marketing. (SCC, SFCC)

MMGT 220 - Professional Sales (3 cr)
Introduction to the principles and techniques of sales promotion. Develop an understanding of factors and personality traits necessary for professional sales. (SFCC)

MMGT 223 - Customer Service (3 cr)
This course focuses on creating and maintaining positive customer relations. Efficient and effective ways to deliver quality service and products are presented. Projecting a professional image, communicating with customers and handling complaints effectively, maintaining time management, and working with culturally diverse clients are emphasized. (SCC, SFCC)

MMGT 225 - Content, Social and Digital Marketing (5 cr)
In this course, students will explore the use of social media, digital media and content development to create platform strategies to connect with customers, increase sales and build brand. (SCC)

MMGT 231 - Human Resource Management (5 cr)
Techniques and principles of personnel supervision and administration including employee recruitment, job analysis, affirmative action, labor relations, compensation, performance appraisal, interviewing, motivation, training and development, and employee health and safety. (SCC, SFCC)

MMGT 243 - Fundamentals of Project Management (5 cr)
Project management is an effective method for executing and completing projects on time and within budget. Students will gain a working knowledge of the fundamentals of project management and be able to immediately use that knowledge to effectively manage work projects. This course introduces the concepts and methods required for creating a plan and effectively managing project scope, time, cost, human resources, communication, risk, and procurement management to produce quality deliverables. (SCC)

MMGT 244 - Introduction to Lean Six Sigma (2.5 cr)
Introduces the fundamentals of Lean Six Sigma providing a comprehensive understanding of what it is, background on the improvement methodologies used in a Six Sigma Process, important details on the necessary supporting infrastructure and provides examples of Lean Six Sigma in manufacturing, the office, order entry, warehousing and distribution, sales and R&D. (SCC)

MMGT 250 - Professional Sales (5 cr)
Develop skills in business development; sales prospects and qualifying buyers; relationship building, product knowledge, and post sales service; public relations theories, strategies and campaigns. (SCC)

MMGT 256 - Lean Leadership (5 cr)
This course is designed for development of leaders to enable them to apply the best practices and top tools and techniques of Lean. Discover how Lean impacts profit, inventory, and quality to the customer. Learn the most common Lean tools and methods through this interactive class. (SCC)

MMGT 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SFCC)

MMGT 288 - Cooperative Education Work Experience (No Seminar) (1-18 cr)
For course description, see Cooperative Education. (SCC)

MMGT 293 - Independent Study (5 cr)
Independent study is offered in each academic discipline and designated by the course numbers 291, 292 or 293. A student may register for not more than three independent study courses per quarter, varying from 1 to 5 credits each, not to exceed a total of 10 credits of independent study during the student's tenure at Community Colleges of Spokane. Requirements and limitations concerning courses are available from the instructional departments. (SFCC, SCC)

MATHEMATICS

MATH 20 - Mathematics Center 1 (1-5 cr)
This course covers basic fundamentals of arithmetic including whole numbers, fractions, decimals, ratios, proportions and percentages. It is offered as a variable credit individualized program and designed for students who have a limited background in math. (SCC)

MATH 21 - Developmental Math (5 cr)
This course covers basic fundamentals of mathematics for students who need review of numerous topics taught between grades seven and twelve. Whole numbers, fractions, decimals, ratios, proportions, percentages, powers and roots, integers, and algebraic equations are emphasized. (SCC)

MATH 30 - Introduction to Texas Instruments Calculators (1 cr)
This course introduces Texas Instruments graphing calculators to students taking MATH 99 or above. Basic calculator functions, graphing and equation solving, and regression equations are emphasized. Prerequisite: Assessment of placement into MATH 99 or higher. (SCC)

MATH 35 - The Metric System (1 cr)
Audio-tutorial learning program offered through the math center with emphasis on learning to use metric units naturally: To conceptualize in meters, liters, grams, degrees, Celcius, etc., without tedious conversions from the customary U.S. units. (SFCC)

MATH 87 - Algebra for Math Literacy I (5 cr)
This course is the first course in a two quarter sequence leading to MATH &107, MATH& 146 and PHIL&120. Topics include simplifying expressions, creating and interpreting scatterplots, percent change, ratios, rates and proportions. Prerequisite: SCC-MATH 21 with a 2.0 or better within the last three years; or appropriate placement score; SFCC-MATH 21 or 90 with a 2.0 or better within the last three years; or appropriate placement score. (SFCC, SCC)

MATH 88 - Algebra for Math Literacy II (5 cr)
This course is the second course in a two-quarter sequence leading to MATH& 107, MATH& 146, and PHIL& 120. Topics include algebraic models of linear, quadratic and exponential functions, equations of lines, systems of equations, direct and inverse variation, descriptive statistics. Prerequisite: MATH 87, 91, or 93 with a 2.0 or better within the last three years; or an appropriate placement score. (SFCC, SCC)

MATH 89 - Math Prep for the Sciences (1 cr)
This course provides a mathematical foundation for students who will be taking introductory science courses. Subjects covered include the metric system, dimensional analysis, scientific notation, significant figures using a scientific calculator, and translating word problems from all areas of science. (SCC)

MATH 90 - Pre-Algebra (5 cr)
A course intended for students who have studied arithmetic but who are not ready for elementary algebra. Numerous introductory topics from grades 9 through 12 are covered which may include operations with signed numbers and rational numbers, simple algebraic equations, properties of real numbers, prime numbers and factoring, exponents and roots, geometric concepts, basic graphs, metrics, basic inequalities, or absolute value. Prerequisite: MATH 21 with 2.0 or better or appropriate placement score. (SFCC)

MATH 91 - Elementary Algebra I (5 cr)
This course covers beginning algebra concepts for students without high school algebra or those who need a review. Topics will include real numbers, algebraic expressions, equations and inequalities, polynomials and graphing. Other topics may include factoring. Prerequisite: SCC-MATH 21 with a 2.0 or better within the last three years; or appropriate placement score; SFCC-MATH 21 or 90 with a 2.0 or better within the last three years; or appropriate placement score. (SCC)

MATH 92 - Elementary Algebra II (5 cr)
This course is a continuation of MATH 91. Topics include factoring, rational expressions, linear equations in two variables and systems of equations. Other topics may include radicals and quadratic equations. Prerequisite: MATH 91 with a 2.0 or better within the last three years; or appropriate placement score. (SCC)

MATH 93 - Algebra I (5 cr)
This course covers beginning algebra concepts for students without high school algebra or those who need a review. Topics will include algebraic expressions, linear equations, lines, linear regression, inequalities, and graphing. Prerequisite: MATH 90 or 91 with a 2.0 or better; or appropriate placement score. (SFCC)

MATH 94 - Algebra II (5 cr)
This course is a continuation of MATH 93. Topics include exponents, radicals, power functions, quadratic (models, equations, translations), and right angle trigonometry. Prerequisite: MATH 91 or 93 with a 2.0 or better within the last three years or appropriate placement score. (SFCC)

MATH 95 - Mathematics Center 2 (1-5 cr)
This course reviews arithmetic and pre-algebra and is offered as a variable credit individualized program in the Math Center for students preparing to take algebra. Prerequisite: Counselor or instructor referral. (SCC, SFCC)

MATH 96 - Introductory Algebra (5 cr)
This course covers introductory algebra skills. Topics include signed numbers, linear equations, graphing linear equations, linear systems of equations, polynomials and rational expressions. This course is designed for students who need a review of high school algebra. Prerequisite: SCC-Math 21 with a 2.0 or better within the last three years; or appropriate placement score; SFCC-Math 21 or 90 with a 2.0 or better within the last three years; or appropriate placement score. (SCC)

MATH 97 - Intermediate Algebra: A Modeling Approach (5 cr)
This course covers intermediate algebra skills through a modeling approach. Topics include linear, quadratic and exponential functions, and introductions to geometry, probability, sequences and statistics. Prerequisite: MATH 88 or MATH 91 and 92 or 96 with a 2.0 or better within the last three years; or appropriate placement score. (SCC)

MATH 98 - Algebra III (5 cr)
This course is a continuation of MATH 94 and covers intermediate algebra skills. Topics include sequences, rational expressions and equations, basic functions that include but are not limited to absolute value, exponential and logarithmic. Prerequisite: MATH 94 with a 2.0 or better or an appropriate placement score. (SFCC)

MATH 99 - Intermediate Algebra (5 cr)
This course covers intermediate algebra skills. Topics include a review of beginning algebra concepts, radicals, inequalities, functions and quadratic functions. Other topics may include exponential and logarithmic functions. Prerequisite: MATH 91 and 92 or 96 with a 2.0 or better within the last three years; or appropriate placement score. (SCC)

MATH 100 - Vocational Technical Mathematics (1-6 cr)
Basic mathematics from whole numbers through elementary algebra and triangle trigonometry to fulfill the needs of professional/technical students at their current mathematical level. Courses are offered and objectives and credits determined by contract between math department and the requesting professional/technical program. Prerequisite: Registration in the requesting vocational area or permission of instructor. (SCC, SFCC)

MATH& 107 - Math in Society (5 cr)
This course is a rigorous terminal mathematics course for students in the liberal arts. The course provides a solid foundation in the quantitative reasoning, symbolic reasoning, and critical thinking needed to be a productive member of society. The course core topics are proportional reasoning, the mathematics of personal finance, probability, descriptive statistics, and growth and decay models (linear and exponential). Prerequisite: MATH 88, 97, 98, or 99 with a 2.0 or better within the last three years or appropriate placement score. (SCC, SFCC)

MATH 108 - College Algebra (3 cr)
This course is a concentrated study of the topics traditionally found in College Algebra. The curriculum includes a quick and intense review of topics from Intermediate Algebra, including algebraic expressions, polynomials, equations, problem solving, complex numbers, radicals, and graphing. Additional topics include functions and solving radical equations and polynomial inequalities. Appropriate use of technology is incorporated. Prerequisite: MATH 97, 98 or 99 with a 2.0 or better within the last three years or appropriate placement scores. (SCC, SFCC)

MATH& 141 - Precalculus I (5 cr)
This course covers college algebra skills, which include polynomial, rational, exponential and logarithmic functions, systems of equations and matrix solutions, and graphs of polynomial functions. Other topics may include sequences, series and summations. Prerequisite: MATH 98 or 99 with a 3.0 or better within the last three years or MATH 108 with a 2.0 or better within the last three years or appropriate placement score. (SCC, SFCC)

MATH& 142 - Precalculus II (5 cr)
This course introduces circular functions and analytic trigonometry needed for further study in mathematics. Other topics include sequences and series, mathematical induction, conic sections, rotation and translation of axes, DeMoivre's theorem and nth roots of complex numbers, or vectors in the plane. Prerequisite: MATH& 141 with a 2.0 or better within the last three years; or appropriate placement score. (SCC, SFCC)

MATH& 146 - Introduction to Stats (5 cr)
Descriptive statistics, probability, probability distributions, sampling methods, hypothesis testing, statistical inference, correlations, regression and analysis of variance are covered in this course. Prerequisite: MATH 88, 97, 98 or 99 with a 2.0 or better within the last three years; or appropriate placement score. (SFCC, SCC)

MATH& 148 - Business Calculus (5 cr)
A one-quarter introduction to differential and integral calculus. Specifically oriented for students in management, life sciences and social sciences. Prerequisite: MATH& 141 or MATH 201 with a 2.0 or better within the last three years; or appropriate placement score. (SCC, SFCC)

MATH 150 - Applied Calculus (5 cr)
A one-quarter introduction to Applied Calculus including differential and integral calculus. Specifically oriented for students in management, life sciences, physical sciences, and social sciences with a strong PreCalculus background. This course will be available to offer as an Honors class. Prerequisite: MATH& 141 with a 2.0 or better within the last three years or appropriate placement score. (SFCC)

MATH& 151 - Calculus I (5 cr)
This is the first quarter of a three-quarter course in calculus and analytic geometry. This course includes an introduction to limits, rates of change and continuity. The course also deals with the definition of derivative of a function and rules of differentiation, curve sketching and other application of differentiation, introduction to integrals and the Fundamental Theorem of Calculus. Prerequisite: MATH& 141 and MATH& 142 with a 2.0 or better within the last three years; or appropriate placement score. (SCC, SFCC)

MATH& 152 - Calculus II (5 cr)
This is the second quarter of a three-quarter course in calculus and analytic geometry. This course also includes applications of integration, derivatives and integrals of exponential, logarithmic and the trigonometric functions, derivatives and integrals of hyperbolic functions and their inverses, indeterminate forms and L'Hopital's Rule, and techniques of integration. Other topics may include vectors and the geometry of space. Prerequisite: MATH& 151 with a 2.0 or better. (SCC, SFCC)

MATH& 153 - Calculus III (5 cr)
This is the third quarter of a three-quarter course in calculus and analytic geometry. This course includes an introduction to differential equations; parametric equations; polar, cylindrical and spherical coordinates; infinite sequences and series. Cylindrical and quadric surfaces, vector valued functions and their space curves, and derivatives and integrals of vector functions also are discussed. Prerequisite: MATH& 152 with a 2.0 or better. (SCC, SFCC)

MATH 201 - Introduction to Finite Mathematics (5 cr)
This course covers basics of mathematical models, including linear, quadratic and polynomial functions, systems of linear equations and inequalities, linear programming and matrices. Elementary concepts of probability and simulation are introduced. Particular emphasis is placed on business and social applications. Prerequisite: MATH 97, 98 or 99 with a 2.0 or better within the last three years; or appropriate placement score. (SCC, SFCC)

MATH 208 - Mathematics for Elementary Education - A (5 cr)
This is the first course in a three course sequence designed for prospective teachers at the elementary school level, focusing on the following topics: Problem solving, set theory, elementary logic, numeration systems, number theory, and the structure of the system of real numbers. Prerequisite: MATH 88, 97, 98 or 99 with a 2.0 or better; or appropriate placement score. (SFCC)

MATH 209 - Mathematics for Elementary Education - B (5 cr)
This is the second course in a three course sequence designed for prospective teachers at the elementary school level, focusing on the following topics: Statistics, probability, and the structure of the system of real numbers including integers, rational and irrational numbers. Prerequisite: MATH 208 with a 2.0 or better. (SFCC)

MATH 210 - Mathematics for Elementary Education - C (5 cr)
This is the last course in a three course sequence designed for prospective teachers at the elementary school level, focusing on the following topics: Problem solving, structures of geometry, to include shapes, measurements, triangle congruencies, and the coordinate system. Prerequisite: MATH 208 with a 2.0 or better. (SFCC)

MATH 211 - Mathematics for Elementary Education I (5 cr)
This is the first course in a sequence designed for prospective teachers at the elementary school level, focusing on the following topics: Set theory, numeration systems, number theory, the structure of the system of real numbers and problem solving. Prerequisite: Math 99 with a 2.0 or better in the last three years; or appropriate placement score. (SCC, SFCC)

MATH 212 - Mathematics for Elementary Education II (5 cr)
This is the second course in a sequence designed for prospective teachers at the elementary school level, focusing on the following topics: statistics, geometry and measurement. Prerequisite: Math 211 with a 2.0 or better within the last three years; or appropriate placement scores. (SCC, SFCC)

MATH 220 - Elementary Linear Algebra (5 cr)
Introduction to linear transformations, matrix theory, vector products, finite dimensional spaces, subspaces, spanning sets, bases, eigenvalues and eigenvectors. Prerequisite: MATH& 152 with a 2.0 or better. (SFCC, SCC)

MATH 245 - Discrete Mathematics (5 cr)
An introduction to the theory of the mathematics found in computer science. Topics include logic, proofs, sets, counting, probability, matrices, functions and relations, graphs, and trees. Prerequisite: MATH& 151. (SCC, SFCC)

MATH& 254 - Calculus IV (5 cr)
A course designed to give students an introduction to the basic concepts of multivariable calculus using the tools of linear algebra as applicable; vector functions, real valued functions, differentiation of scalar functions, multiple integration, vector differentiation and integration, transformation of coordinates, Green's Theorem, Stoke's Theorem, Gauss' Theorem and Lagrange Multipliers. Prerequisite: MATH& 153 with a 2.0 or better. (SCC, SFCC)

MATH 274 - Elementary Differential Equations (5 cr)
An introduction to ordinary differential equations. Elementary methods of solutions to first-order equations, linear equations of second and higher order, and systems of first-order linear equations. Power series solutions, numerical methods and Laplace Transforms also are covered. Prerequisite: MATH& 153 with a 2.0 or better. (SFCC, SCC)

MATH 300 - Mathematical Modeling for Applied Science (5 cr)
This course discusses mathematical modeling in an applied science setting. Topics include proportional reasoning, horizontal and vertical analysis, finance, probability and statistics. An emphasis is placed on how to apply these concepts to practical situations that occur in the applied sciences. Prerequisite: Applied BAS degree students only. MATH 88, 98, or 99 with a 2.0 or better within the last three years or an appropriate placement score. (SFCC)

MEDICAL ASSISTANT

MA 101 - Administrative Medical Assistant I (5 cr)
This lecture course will introduce students to the overall office environment, including telephone techniques, patient reception and appointment scheduling. Communication techniques and skills are heavily focused on as they relate not only to inner office professionalism yet also between the provider and patient. Prerequisite: Admission into the medical assistant program and CIS 110. (SCC)

MA 102 - Clinical Medical Assistant I (3 cr)
This hands-on laboratory course allows the student to perform laboratory assignments such as: obtaining vital signs, dispose of biohazardous materials, creating, filing and storing the medical record, scheduling in-patient and out-patient procedures, legal and ethical boundaries, telephone techniques, third party guidelines, and HIPAA. Prerequisite: Admission into the medical assistant program and CIS 110. (SCC)

MA 107 - Basic Medical Assisting (3 cr)
This course is designed as an online/hybrid split, as it introduces students to the basic emergency medicine skills and knowledge necessary for entry-level medical assistants in the medical office environment. In addition, students will complete a mandatory 7 hour HIV/AIDS online training course and a 4 hour CPR/BLS provider course (instruction certified by INHS) provided in-person on the Spokane Community College campus. Prerequisite: HED 105. (SCC)

MA 111 - Administrative Medical Assistant II (3 cr)
This lecture course introduces students to the practices of office facilities, equipment and supplies, written communications, computer technology, patient billing, and collections as well as work through the Gartee MyLabs Electronic Health Record (EHR) simulation course with provided scenarios and assignments. Prerequisite: MA 101, 102. (SCC)

MA 112 - Clinical Medical Assistant II - A (3 cr)
This lecture course introduces the student to the medical assistant's role in assisting with physical examinations, preparing for procedures, and exams within fields such as pediatrics, geriatrics, urinary, and reproductive health as well as the clinical laboratory aspect of the medical office. Prerequisite: MA 101, 102. (SCC)

MA 113 - Clinical Medical Assistant II - B (2 cr)
This hands-on laboratory course allows the student to perform laboratory assignments such as: documenting on growth charts, obtaining and performing CLIA waived testing, performing capillary puncture, maintaining medication and immunizations records, parenteral medications, childhood immunizations, and sterile techniques. (SCC)

MA 121 - Administrative Medical Assistant III (2 cr)
This laboratory course allows the student to successfully complete the psychomotor and effective components of the administrative functions of the medical assistant mainly focusing on billing and coding, insurance procedures, and communicating with third party representatives. While performing these administrative functions, the student will be observed for displaying sensitivity between medical providers, patients, and third party representatives. (SCC)

MA 122 - Clinical Medical Assistant III - A (2 cr)
This lecture course introduces the student to the medical assistant's role in assisting with minor/outpatient surgery, the study of phlebotomy, and hematology as well as an in-depth look at the fields of cardiology and pulmonology focusing on the tests and procedures that the student will practice and perform in the general medical office environment. Prerequisite: HED 108, 125, MA 111, 112. (SCC)

MA 123 - Clinical Medical Assistant III - B (3 cr)
This hands-on laboratory course allows the student to perform laboratory assignments such as: measuring and recording pulse oximetry, completing laboratory requisitions, performing syringe, vacutainer, and butterfly venipuncture methods, performing an electrocardiograph, spirometry, and Erythrocyte Sedimentation Rate (ESR) testing. (SCC)

MA 125 - Ambulatory Care Setting Pharmacology (5 cr)
This course covers principles of pharmacology. Medication classifications will be studied according to body system and usage. Students will learn the different routes for medication administration, medication actions, contraindications and side effects. Prerequisite: Successful completion of MA 101, 102, 111, 112 and concurrent enrollment in HIM 120, MA 122. (SCC)

MA 131 - Administrative Medical Assistant IV (3 cr)
This lecture course introduces the student to advanced administrative skills for the medical assistant's role in the medical office. Topics include banking and the practice of finances, medical office management, career opportunities, and professionalism in the workplace. Prerequisite: HED 109, MA 122. (SCC)

MA 132 - Clinical Medical Assistant IV - A (3 cr)
This lecture course introduces the student to several medical specialties, including in-depth education on Ear, Nose, and Throat (ENT) clinical care settings, nutrition, and mental health (Kubler-Ross and Maslow's theories). Prerequisite: HED 109, MA 122. (SCC)

MA 133 - Clinical Medical Assistant IV - B (2 cr)
This hands-on laboratory allows the student to perform laboratory assignments such as: administering eye and ear medications, irrigation of the eyes and ears, identifying dietary needs, and providing education for health maintenance and disease prevention. (SCC)

MA 141 - Medical Assistant Seminar (1 cr)
This course requires the student to participate in an online discussion board guided by the instructor with specific questions pertaining to each individual's clinical site experiences. Prerequisite: HED 109, MA 122, 131, 132. (SCC)

MA 142 - Medical Assistant Externship (6 cr)
This course requires students to participate in a 5-6 week or 198 hour SUPERVISED and UNPAID clinical externship experience. This experience allows students to utilize the technical skills acquired throughout the program and apply them in a medical facility working with physicians and patients. Prerequisite: HED 109, MA 122, 131, 132. (SCC)

MEDICAL OFFICE SPECIALIST

MSEC 108 - Medical Office Computing (5 cr)
Students receive hands-on training using financial, scheduling, word processing and clinical database software packages utilizing a microcomputer. Prerequisite: Keyboarding skills. (SCC)

MSEC 120 - Human Relations/Communications for Medical Office Personnel (5 cr)
Students learn the principles of therapeutic communications, human growth and development and their application to specific medical circumstances. (SCC)

MSEC 121 - Medical Office Reception (5 cr)
This course introduces students to the profession of the administrative medical assistant and how it fits within the health care environment and health care teams. Topics include legal and ethical concepts, telephone and scheduling techniques, medical records management rules and regulations, and how to create a comfortable facility atmosphere. Students enhance their ability to research using the Internet and library, create written reports and make round-table presentations. Prerequisite: BT 231. (SCC)

MSEC 123 - Medical Office Coding (5 cr)
Medical diagnostic coding. Transformation of written and verbal descriptions of diseases, conditions, and injuries into alpha-numeric codes by applying guidelines, conventions, and instructional notes from the International Classification of Disease, 10th Revision, Clinical Modification (ICD-10-CM) coding manual. The guidelines will be applied by coding typical patent encounter diagnostic statements. This class prepares students for entry level diagnostic coding in a medical office, hospital, or clinic setting. Prerequisite: HED 104 with a 2.0 or better. (SCC)

MSEC 124 - Medical Office Insurance Billing (5 cr)
This course is designed to introduce the student to major nationwide and local medical insurance programs. Assists the student in understanding insurance terminology, different types of coverage, consents for release of information, assignment of benefits, referral and preauthorization, and correct completion of the CMS1500 and UB04 billing forms. Course work will include medical insurance requirements for billing, confidentiality, coding, and claims processing. Students also experience different medical reimbursement methodologies, learn how to read an EOB/remittance advice, write an appropriate appeal letter, and compute coinsurance amounts. Prerequisite: MSEC 223 with a 2.0 or better. (SCC)

MSEC 125 - Medical Office Bookkeeping (4 cr)
The focus of this class is to introduce the student to medical office procedures using a computerized medical office management system. An interactive approach will familiarize the student with computerized account management and help develop confidence and the necessary skills to become succesful users of medical account management software. Students enter patient demographic information, charges and payments into a computerized medical software system. CMS1500 billing forms are produced as well as patient statements. Daily and monnthly financial reports for a medical practice are also covered. Prerequisite: ACCT 151 and BUS 103. (SCC)

MSEC 131 - Fundamentals of Medical Word Processing (5 cr)
This course introduces the fundamentals of medical word processing including transcription of medical office correspondence and reports (medicolegal, history and physical, consultation, and discharge summaries). Students learn various mechanical formats used to prepare these reports. The application of medical terminology to develop familiarity with spoken terms is emphasized. Prerequisite: Typing speed of 50 wpm. (SCC)

MSEC 132 - Medical Transcription I (10 cr)
Students develop skills in transcription of medical dictation and word processing software using personal computers to transcribe selected medical correspondence and medical reports. A review of language skills including vocabulary, grammar and punctuation, capitalization, numbers, figures and abbreviations is presented. Transcription of reports (history and physical, operative, and discharge summaries) is emphasized. An academic study of related terminology also is included. Prerequisite: MSEC 131 with a 2.0 or better. (SCC)

MSEC 133 - Medical Transcription II (10 cr)
Students continue to develop the skills in the transcription of dictation utilizing proofreading and editing skills while meeting progressively demanding accuracy and productivity standards. Transcription of pathology, radiology, diagnostic testing and industrial medical reports is emphasized. An academic study of related terminology is included. Prerequisite: MSEC 132 with a 2.0 or better. (SCC)

MSEC 134 - Speech Recognition/Editing (5 cr)
This class will explore the difference between front-end and back-end speech recognition editing as well as productivity and quality issues. This will also include the role of SR technology in the medical record and the implications of SR technology on the future of the medical transcription industry. Prerequisite: MSEC 131. (SCC)

MSEC 150 - Medical Transcription Practicum (8 cr)
Students must complete a minimum of 264 hours of on-the job medical transcription training. Consultations, histories and physicals, operative reports, discharge summaries, and other medical reports are emphasized. Prerequisite: MSEC 133. (SCC)

MSEC 221 - Clinical Coding (5 cr)
This course covers complex coding and auditing scenarios for physician practices. Students will learn to audit Evaluation and Management services and abstract information from Operative Reports for proper coding. Assignment of appropriate diagnosis codes, and HCPCS codes for medical supplies is also covered. Prerequisite: MSEC 223 with a 2.0 or better. (SCC)

MSEC 223 - Medical Office Coding II (5 cr)
Medical procedural coding. A lecture class, MSEC 223 will provide knowledge of coding rules for the Current Procedural Terminology (CPT) manual, and a more in-depth knowledge and practical application using the International Classification of Diseases, Clinical Modification 10th revision (ICD-10-CM) diagnostic coding system. These rules will be applied by coding typical patient encounters. The students will code using "real life" documents such as History and Physicals, Chart Notes, Consultation Reports, Operative Reports, etc. Prerequisite: MSEC 123 with a 2.0 or better. (SCC)

MSEC 225 - Certified Professional Coder (CPC) Exam Preparation (5 cr)
This course prepares students for the Certified Professional Coder exam by the American Academy of Professional Coders (AAPC). The course includes a review of anatomy and terminology, ICD-10-CM coding, HCPCS coding, Evaluation and Management coding, use of modifiers, CPT® coding review for each subsection in the surgery section of CPT®, as well as anesthesia, radiology, and pathology/laboratory coding. Successful testing techniques, as well as practice exams are included in the course. Prerequisite: MSEC 221 with a 2.0 or better. (SCC)

MSEC 240 - Healthcare Documentation/Transcription (5 cr)
Introductory transcription course designed to provide students with a basic working knowledge of transcription through various types of medical reports, as well as reinforce medical documentation practices, including HIPAA and other legal aspects of medical records. The course also reviews and reinforces the use of medical language (terminology, abbreviations, acronyms, etc.), as well as proper English grammar, spelling, and punctuation practices in medical documentation. Prerequisite: Typing speed of 40 wpm with 4 or fewer errors. Successful completion of BT 105, 106, 196, HED 104, 105, and MSEC 108. (SCC)

MSEC 241 - Medical Office Transcription (5 cr)
This course continues with the applications introduced in MSEC 240 with an emphasis on transcription of special medical reports, referral letters and medical office dictation. Accuracy and speed in transcribing tapes are stressed. An academic study of related terminology is presented. Prerequisite: MSEC 240. (SCC)

MSEC 284 - Medical Internship Seminar (1 cr)
Students share office experiences, utilize problem-solving skills and participate in career-related activities. Prerequisite: Medical clerical careers students only and MSEC 121 or 133. If earning a medical secretary degree, this must be your final quarter. Concurrent enrollment in MSEC 287. (SCC)

MSEC 285 - Medical Office Reception Internship (2-3 cr)
Students are placed in Spokane area medical offices to observe and perform receptionist duties in the medical office environment. Prerequisite: Medical office specialist degree or currently enrolled in the final quarter of the medical office receptionist or medical office insurance clerk programs. Students must also have three "recommended-for-internship" SEA forms. (SCC)

MSEC 286 - Medical Insurance Billing Internship (3 cr)
Students observe and apply clasroom skills in a Spokane area health care provider office environment for a minimum of 99 hours. Prerequisite: Medical Billing and Coding students. (SCC)

MSEC 287 - Medical Specialist Internship (3 cr)
Students observe and apply classroom skills in a Spokane area health care provider office environment for a minimum of 99 hours. Prerequisite: Medical Office Specialist students currently enrolled in their final quarter. (SCC)

MILITARY SCIENCE

MILSC 101 - Introduction to Leadership I (2 cr)
This course is a nontechnical introduction to military science. Students increase self-confidence through team study and activities in basic drill, physical fitness, rappelling, leadership reaction course, first aid, making presentations and basic marksmanship. They learn fundamentals of leadership in a profession in both classroom and outdoor laboratory environments intended to develop students and help them cope with life as a student and as a productive member of society. Highly encouraged, but optional, participation in a one weekend exercise and participation in one-hour sessions of physical fitness are offered. (SFCC)

MILSC 102 - Introduction to Leadership II (2 cr)
Students learn and apply principles of effective leading and team development. This course helps students reinforce self-confidence through participation in physically and mentally challenging exercises with upper-division ROTC students. It is intended to help students develop skills needed to increase their chances of success in the college environment. Students develop communication skills to improve individual performance and group interaction. They relate organizational ethical values to the effectiveness of a leader. Highly encouraged, but optional, participation in one-hour sessions of physical fitness are offered. (SFCC)

MILSC 103 - Introduction to Leadership III (2 cr)
Students build on and apply principles of effective leading and team development in the classroom and at the leadership laboratory. They continue to develop self-confidence through participation in physically and mentally challenging exercises with upper-division ROTC students. They develop skills to increase chances of success in a college environment, with special emphasis on communication skills, individual performance, social skills and group interaction. Highly encouraged, but optional, participation in one weekend exercise and participation of one-hour sessions of physical fitness are offered (SFCC)

MILSC 201 - Self/Team Development (3 cr)
Students learn and apply ethics-based leadership skills that develop individual abilities and contribute to the building of effective teams of people. They develop skills in oral presentations, writing concisely, planning for events, coordination of group efforts, advanced first aid, land navigation and basic military tactics. They learn fundamentals of ROTC's Leadership Development Program. Two hours of classroom instruction and a required two-hour leadership lab each week are offered. Highly encouraged, but optional, participation in one weekend exercise and participation in one-hour sessions of physical fitness also are offered. (SFCC)

MILSC 202 - Individual/Team Military Tactics (3 cr)
This course is an introduction to individual and team aspects of military tactics in small unit operations. Includes use of radio communications, making safety assessments, movement techniques, planning for team safety/security and methods of pre-execution checks. Practical exercises with upper-division ROTC students are provided. Students learn techniques for training others as an aspect of continued leadership development. Two hours of classroom instruction and a required two-hour leadership lab each week are offered. Highly encouraged, but optional, participation in one weekend exercise and participation in one-hour sessions of physical fitness also are offered. (SFCC)

MILSC 203 - Team Leadership/Military Tactics (3 cr)
An examination of the role of leadership and management in the context of a small organization element is provided with this course. Topics covered include motivation, handling disruptive influences, counseling skills, leadership styles and group dynamics. Students have an opportunity to identify their own strengths and weaknesses as leaders and managers. The course is presented in the context of military leadership, but the concepts can be applied in any context where leadership and management are essential. Highly encouraged, but optional, participation in one weekend exercise and participation in one-hour sessions of physical fitness are offered. (SFCC)

MUSIC

MUSC 100 - Music Fundamentals (5 cr)
The course studies the basics of music, including notation, rhythm, melody, harmony, scales, keys and key signatures, and emphasizes these concepts through the piano keyboard. No prior knowledge of music is necessary. (SFCC)

MUSC& 105 - Music Appreciation (5 cr)
Listening and understanding of common musical forms, idioms and styles; and how music relates to us today. (SCC, SFCC)

MUSC 106 - History of Popular Music (5 cr)
The history of American popular music from 1900 to the present. The course examines pre-20th century influences and traces the development of jazz, blues, the swing era, rhythm and blues, rock and roll, country, the British Invasion, funk, electronic, and fusion. (SCC, SFCC)

MUSC 108 - Music and Cinema (5 cr)
This course examines the various functions of music in film and traces the historical development of film music. (SCC, SFCC)

MUSC 109 - World Music (5 cr)
This course explores several musical cultures throughout the world, including but not limited to Africa, the Americas, Asia, Near East, Europe and South Pacific. The course is designed to enhance student's appreciation for the diversity of music throughout the world as well as the people that perform it. Students gain an understanding of features in the music that distinguish one style from another and the cultural and social-historical factors that shape the development of music. Lectures, films, recordings and live presentations assist students in their understanding of course topics. Though a knowledge of music is helpful, a music background is not required for this course. (SCC, SFCC)

MUSC 110 - Instrumental Techniques (1 cr)
This course is designed for instrumentalists who want to improve their performing abilities. Students will learn how to read lead sheets, become familiar with basic scales and chords, as well as the etiquette of running a small ensemble. Students will also learn the basics of improvisation to prepare them to take the Improvisation I course at SFCC. (SFCC)

MUSC 111 - Improvisation I (1 cr)
Improvisation I is open to any student who plays a musical instrument or sings and wants to acquire the basic improvisational skills for standard jazz repertoire. The class is a requirement for music students who want to perform in jazz combo and/or seeking an AFA degree Music with an emphasis in Jazz studies. The course runs concurrent with Jazz combos. Prerequisite: AUDIO 116 or MUSC 100 or MUSC& 141. (SFCC)

MUSC 112 - Improvisation II (1 cr)
Improvisation II is open to any student who plays a musical instrument or sings and wants to acquire intermediate improvisational skills for standard jazz repertoire. The class is a requirement for music students who want to perform in jazz combo and/or seeking an AFA degree in music with an emphasis in Jazz studies. The course runs concurrent with Jazz combos. Prerequisite: MUSC 111 or permission of instructor. (SFCC)

MUSC 114 - Contemporary Harmony (3 cr)
This course includes the study of harmony as used in contemporary popular music, jazz, commercial media and film, including chords, scales, harmonic progressions, the blues, chord scale relationships, improvisation theory, notation and dictation. Students develop aural skills through listening and analysis. Prerequisite: MUSC 100 or MUSC& 141 or AUDIO 116 (SFCC)

MUSC 115 - Symphony Orchestra (1-3 cr)
Students perform an extensive repertoire of quality orchestral music from the Baroque era to the present. Each course may be taken up to three times. (SFCC)

MUSC 124 - History of Jazz (5 cr)
A survey of jazz in which recent investigations in cultural anthropology and American history, as well as the traditional viewpoints of music history and theory, are reflected. (SFCC, SCC)

MUSC 127 - Chamber Singers (1-3 cr)
A select performing ensemble whose purpose is to study, practice and perform representative chamber music from the 16th through the 20th centuries. Each course may be taken up to three times. Prerequisite: Permission of instructor. (SFCC)

MUSC 128 - Vocal Jazz Ensemble (2 cr)
This auditioned ensemble sings both a cappella and with accompaniment (piano/bass/drums) in traditional jazz (swing, Latin, bebop, blues) and modern a cappella styles. The emphasis is on complex harmonies, stylistic rhythms, jazz band-like phrasing and vocal improvisation. Ideally, the group will perform as a recruiting and touring ensemble throughout the greater Spokane area. Prerequisite: Permission of instructor. (SFCC)

MUSC 134 - Small Ensemble (1 cr)
Small Ensemble offers students an opportunity to collaborate and perform, concentrating on a variety of contemporary musical styles. The ensemble performs quarterly. This course may be repeated for credit up to 3 times. (SFCC)

MUSC 135 - World Drumming (1 cr)
This course introduces students to the basic art of drumming as a gateway to explore the culture and music of Africa, Brazil, Cuba and the Middle East. No previous reading or drumming ability is required (although helpful) and instruments are provided. This course may be taken for credit up to three times. (SFCC)

MUSC 139 - Chorus Men (1-2 cr)
Elementary work in mixed chorus ensemble singing together with study of appropriate choral literature. Each course may be taken up to three times. (SFCC)

MUSC 140 - Chorus Women (1-2 cr)
Elementary work in mixed chorus ensemble singing together with study of appropriate choral literature. Each course may be taken up to three times. (SFCC)

MUSC& 141 - Music Theory I (5 cr)
Students develop skills in writing and understanding correct musical notation, major and minor scales, and modes. Students write and apply intervals and triads to simple melodic and harmonic exercises. An emphasis is placed on the structural elements of music. (SFCC)

MUSC& 142 - Music Theory II (5 cr)
Students continue to study scales and modes and their application to melodic and harmonic composition. Students employ the use of triads and seventh chords, including all inversions, in four-part harmonic progressions, and continue to develop aural recognition of scales, intervals and triads with an emphasis on melodic dictation, rhythm, and ear training. Prerequisite: MUSC& 141. (SFCC)

MUSC& 143 - Music Theory III (5 cr)
This course focuses on modulation, secondary dominants and leading tone chords. Students are introduced to chromatic harmony, and analyze and write chorale-type compositions with an emphasis on the soprano/bass framework. Chordal analysis, including cadences and non-chordal tones, is emphasized. Aural recognition of scales, intervals and chords, with exercises in melodic dictation, rhythm, and ear training also are included. Prerequisite: MUSC& 142. (SFCC)

MUSC 145 - Concert Band (1-3 cr)
Students perform an extensive repertoire of master works by composers from the Renaissance to the present. Each course may be taken up to three times. (SFCC)

MUSC 148 - Jazz Ensemble (1-3 cr)
Students study and perform modern trends and practices of jazz and related music areas. Individual music arrangements can be studied and created. Each course may be taken up to three times. (SFCC)

MUSC 166 - Functional Piano I (2 cr)
Students develop piano performance techniques relevant and practical for today's professional musician. Synchronized with MUSC 114, this course includes the study of scales, chords, voicings, harmonic progressions, chord/scale relationships and basic comping, and improvisational techniques. This course is essential for all students of jazz and commercial music, regardless of their primary instrument. (SFCC)

MUSC 167 - Functional Piano II (2 cr)
Students develop piano performance techniques relevant and practical for today's professional musician. This course includes the study of scales, chords, voicings, harmonic progressions, chord/scale relationships and basic comping, and improvisational techniques. This course is essential for all students of jazz and commercial music, regardless of their primary instrument. Prerequisite: MUSC 166 or MUSC 176 (SFCC)

MUSC 170 - Singing I: The Voice (1 cr)
Students will find their voice and learn the basic techniques of posture, breathing and mouth shape/space to take their singing to the next level through lecture, participation, observation, and performance in a class setting. (SFCC)

MUSC 171 - Singing II: How It Works (1 cr)
Students learn the working physiology of the voice through lecture, participation, and observation and apply this knowledge to their vocal performance in a class setting. Prerequisite: MUSC 170. (SFCC)

MUSC 172 - Singing III: How to Use It (1 cr)
Students will learn about multiple styles of contemporary vocal genres and their differing physiology through healthy application of appropriate contemporary vocal techniques. Prerequisite: MUSC 171 or permission of instructor. (SFCC)

MUSC 176 - Beginner Piano Class I (2 cr)
This course provides a basic hands-on introduction to keyboard musicianship and proficiency within a group setting. Keyboard application skills include an introduction to music reading, rhythms, improvisations, technique, solo repertoire and group ensembles. This course is intended for the complete beginner or for students with little experience in piano. (SFCC)

MUSC 177 - Beginner Piano Class II (2 cr)
Students continue to develop keyboard musicianship and proficiency within a group setting. Keyboard application skills include an introduction to chord progressions, harmonization, transposition, and further development of sight-reading, two-handed rhythms, technique, solo repertoire and group ensembles. Prerequisite: MUSC 176 or permission of instructor. (SFCC)

MUSC 178 - Beginner Piano Class III (2 cr)
Students continue to develop keyboard musicianship and proficiency within a group setting. Keyboard application skills include an introduction to secondary chords, varied accompaniment patterns, and further development of sight-reading, two-handed rhythms, technique, solo repertoire and group ensembles. Prerequisite: MUSC 177 or permission of instructor. (SFCC)

MUSC 182 - Guitar Class I (1 cr)
Students learn the fundamentals of note reading, basic theory and technical skills for both hands using a fingerstyle approach. Students are required to furnish their own instrument. (SFCC)

MUSC 183 - Guitar Ensemble (1 cr)
This course is open to all students with reasonable proficiency on guitar. Students will play music from the Renaissance through the 21st Century in ensembles from 2 - 6 people. This course may be taken up to three times for credit. Prerequisite: MUSC 100 or MUSC& 141 or permission of instructor. (SFCC)

MUSC 210 - Improvisation III (1 cr)
Improvisation III is open to any student who plays a musical instrument or sings and wants to acquire advanced improvisational skills for standard jazz repertoire. The class is a requirement for music students who want to perform in jazz combo and/or seeking an AFA degree in music with an emphasis in Jazz studies. The course runs concurrent with Jazz combos. Prerequisite: MUSC 112 or permission of instructor. (SFCC)

MUSC 214 - Contemporary Harmony II/Songwriting (5 cr)
This is a study of major pop/rock, folk/country, and adult contemporary musical styles and the writers, producers, and artists who shape the music. Learn about many musical styles while striving to define your own. Develop instrumental and lyric songwriting techniques. Prerequisite: MUSC 114 or MUSC& 142. (SFCC)

MUSC 215 - Symphony Orchestra (1-3 cr)
Students perform an extensive repertoire of quality orchestral music from the Baroque era to the present. Each course may be taken up to three times. Prerequisite: MUSC 115. (SFCC)

MUSC 227 - Chamber Singers (1-3 cr)
A select performing ensemble whose purpose is to study, practice and perform representative chamber music from the 16th through the 20th centuries. Each course may be taken up to three times. Prerequisite: Permission of instructor. (SFCC)

MUSC 228 - Vocal Jazz Ensemble (2 cr)
The second year of vocal jazz ensemble. This course is a continuation of MUSC 128 and requires three quarters in that course and instructor permission to enroll. This course is repeatable for credit. This course builds on the skill set acquired in MUSC 128 and demands that the singers engage in improvisation and solo work in addition to their ensemble rehearsals. Prerequisite: MUSC 128 and placement audition (SFCC)

MUSC 234 - Jazz Combo (1 cr)
Jazz combos offer students an opportunity to play jazz in a small group format, concentrating on improvisation in many different styles. The combos perform regularly, including tours, jazz festivals and professional engagements. Each course may be taken up to three times. Prerequisite: MUSC 134 or permission of instructor. (SFCC)

MUSC 239 - Chorus Men (1-2 cr)
Elementary work in mixed chorus ensemble singing together with study of appropriate choral literature. Each course may be taken up to three times. (SFCC)

MUSC 240 - Chorus Women (1-2 cr)
Elementary work in mixed chorus ensemble singing together with study of appropriate choral literature. Each course may be taken up to three times. (SFCC)

MUSC& 241 - Music Theory IV (5 cr)
This course focuses on practical writing and analytic experience in diatonic and chromatic harmony used during the 18th and 19th centuries. Students study musical forms, basics for arranging, orchestrating and composing, ear training and sight singing in solfege. Prerequisite: MUSC& 143 or permission of instructor. (SFCC)

MUSC& 242 - Music Theory V (5 cr)
Students continue to study music theory with further discussion on secondary functions, modulatory techniques, chromaticism, altered and borrowed chords, mode mixtures, augmented sixth chords and modulations, ear training and sight singing. Students compose the exposition of a piano sonata. Prerequisite: MUSC& 241. (SFCC)

MUSC& 243 - Music Theory VI (5 cr)
Students continue to study the harmonic vocabulary and elements in late romanticism and the 20th century, impressionism, scales, parallelism, pandiatonicism, set theory, 12-tone technique, serialism, electronic music, advanced sight singing and ear training. Prerequisite: MUSC& 242. (SFCC)

MUSC 245 - Concert Band (1-3 cr)
Students perform an extensive repertoire of master works by composers from the Renaissance to the present. Each course may be taken up to three times. Prerequisite: MUSC 145. (SFCC)

MUSC 248 - Jazz Ensemble (1-3 cr)
Students study and perform modern trends and practices of jazz and related music areas. Individual music arrangements can be studied and created. Each course may be taken up to three times. Prerequisite: MUSC 148. (SFCC)

MUSC 276 - Advanced Piano Class I (2 cr)
Students learn advanced keyboard musicianship and proficiency within a group setting. Keyboard application skills include an introduction to basic conducting and further development of keyboard technique, harmonization, transposition, improvisation, sight-reading, solo repertoire, and group ensembles. Prerequisite: MUSC 178 or permission of instructor. (SFCC)

MUSC 277 - Advanced Piano Class II (2 cr)
Students continue to develop advanced keyboard musicianship and proficiency within a group setting. Keyboard application skills include an introduction to varied chord progressions using secondary chords and inversions. The course includes group discussions on performance anxiety and related issues, and further development of keyboard technique, harmonization, transposition, improvisation, sight-reading, solo repertoire and group ensembles. Prerequisite: MUSC 276. (SFCC)

MUSC 278 - Advanced Piano Class III (2 cr)
Students continue to develop advanced keyboard musicianship and proficiency within a group setting. Keyboard application skills include an introduction to chorale score reading, accompaniment and further development of keyboard technique, harmonization, transposition, improvisation, sight-reading, solo repertoire and group ensembles. Prerequisite: MUSC 277. (SFCC)

MUSIC PRIVATE LESSONS

MUSPL 101 - Preparatory Private Lessons 1 - Foundation (1 cr)
Formerly MUSC 101. This course helps prepare students for college level private music lessons, focusing on foundational skills. Students must be currently enrolled in at least one performing ensemble. Prerequisite: Permission of instructor. (SFCC)

MUSPL 102 - Preparatory Private Lessons 2 - Intermediate/ Advancing (1 cr)
Formerly MUSC 102. This course helps prepare students for college level private music lessons. Students must be currently enrolled in at least one performing ensemble. Prerequisite: Permission of instructor. (SFCC)

MUSPL 103 - Preparatory Private Lessons 3 - Advanced (1 cr)
Formerly MUSC 103. This course helps prepare students for college level private music lessons, focusing on students possessing and refining advanced skills and techniques. Students must be currently enrolled in at least one performing ensemble. Prerequisite: Permission of instructor. (SFCC)

MUSPL 104 - Private Lessons (1 cr)
Formerly MUSC 180. Private instrumental or voice lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility, and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 105 - Private Bass Lessons (1 cr)
Formerly MUSC 180. Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility, and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 106 - Private Bassoon Lessons (1 cr)
Formerly MUSC 180. Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility, and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 107 - Private Cello Lessons (1 cr)
Formerly MUSC 180. Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility, and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 108 - Private Clarinet Lessons (1 cr)
Formerly MUSC 180. Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility, and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 109 - Private Composition Lessons (1 cr)
Formerly MUSC 180. Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility, and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 110 - Private Flute Lessons (1 cr)
Formerly MUSC 180. Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility, and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 111 - Private French Horn Lessons (1 cr)
Formerly MUSC 180. Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility, and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 112 - Private Guitar Lessons (1 cr)
Formerly MUSC 180. Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility, and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 113 - Private Jazz Bass Lessons (1 cr)
Formerly MUSC 180. Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility, and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 114 - Private Jazz Guitar Lessons (1 cr)
Formerly MUSC 180. Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility, and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 115 - Private Jazz Piano Lessons (1 cr)
Formerly MUSC 180. Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility, and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 116 - Private Jazz Voice Lessons (1 cr)
Formerly MUSC 180. Private voice lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility, and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 117 - Private Oboe Lessons (1 cr)
Formerly MUSC 180. Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility, and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 118 - Private Percussion Lessons (1 cr)
Formerly MUSC 180. Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility, and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 119 - Private Piano Lessons (1 cr)
Formerly MUSC 180. Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility, and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 120 - Private Saxophone Lessons (1 cr)
Formerly MUSC 180. Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility, and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 121 - Private Trombone Lessons (1 cr)
Formerly MUSC 180. Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility, and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 122 - Private Trumpet Lessons (1 cr)
Formerly MUSC 180. Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility, and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 123 - Private Tuba Lessons (1 cr)
Formerly MUSC 180. Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility, and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 124 - Private Viola Lessons (1 cr)
Formerly MUSC 180. Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility, and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 125 - Private Violin Lessons (1 cr)
Formerly MUSC 180. Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility, and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 126 - Private Voice Lessons (1 cr)
Formerly MUSC 180. Private voice lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility, and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 204 - Private Lessons (1 cr)
Private instrumental or voice lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 205 - Private Bass Lessons (1 cr)
Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 206 - Private Bassoon Lessons (1 cr)
Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 207 - Private Cello Lessons (1 cr)
Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 208 - Private Clarinet Lessons (1 cr)
Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 209 - Private Composition Lessons (1 cr)
Private lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 210 - Private Flute Lessons (1 cr)
Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 211 - Private French Horn Lessons (1 cr)
Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 212 - Private Guitar Lessons (1 cr)
Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 213 - Private Jazz Bass Lessons (1 cr)
Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 214 - Private Jazz Guitar Lessons (1 cr)
Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 215 - Private Jazz Piano Lessons (1 cr)
Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 216 - Private Jazz Voice Lessons (1 cr)
Private voice lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 217 - Private Oboe Lessons (1 cr)
Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 218 - Private Percussion Lessons (1 cr)
Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 219 - Private Piano Lessons (1 cr)
Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 220 - Private Saxophone Lessons (1 cr)
Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 221 - Private Trombone Lessons (1 cr)
Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 222 - Private Trumpet Lessons (1 cr)
Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 223 - Private Tuba Lessons (1 cr)
Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 224 - Private Viola Lessons (1 cr)
Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 225 - Private Violin Lessons (1 cr)
Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 226 - Private Voice Lessons (1 cr)
Private voice lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

MUSPL 260 - Advanced Private Lessons (2 cr)
Formerly MUSC 190. This course is available only to music majors planning to pursue a performance degree at a four-year school of music. Students receive extended one-on-one instruction that focuses on the repertoire needed for an audition. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. This course may be taken for credit up to three times. Prerequisite: Permission of the instructor. (SFCC)

MUSPL 261 - Advanced Private Piano Lessons (2 cr)
Formerly MUSC 190. This course is available only to music majors planning to pursue a performance degree at a four-year school of music. Students receive extended one-on-one instruction that focuses on the repertoire needed for an audition. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. This course may be taken for credit up to three times. Prerequisite: Permission of the instructor. (SFCC)

MUSPL 262 - Advanced Private Guitar Lessons (2 cr)
Formerly MUSC 190. This course is available only to music majors planning to pursue a performance degree at a four-year school of music. Students receive extended one-on-one instruction that focuses on the repertoire needed for an audition. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. This course may be taken for credit up to three times. Prerequisite: Permission of the instructor. (SFCC)

MUSPL 263 - Advanced Private Voice Lessons (2 cr)
Formerly MUSC 190. This course is available only to music majors planning to pursue a performance degree at a four-year school of music. Students receive extended one-on-one instruction that focuses on the repertoire needed for an audition. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. This course may be taken for credit up to three times. Prerequisite: Permission of the instructor. (SFCC)

MUSPL 264 - Advanced Private Violin Lessons (2 cr)
Formerly MUSC 190. This course is available only to music majors planning to pursue a performance degree at a four-year school of music. Students receive extended one-on-one instruction that focuses on the repertoire needed for an audition. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. This course may be taken for credit up to three times. Prerequisite: Permission of the instructor. (SFCC)

MUSPL 265 - Advanced Private Viola Lessons (1 cr)
Private instrumental lessons prepare students of music for transfer to a university, college or conservatory. Students develop technical agility and learn and master literature they will be expected to perform as part of transfer auditions. Private lessons are reserved for students enrolled simultaneously in music theory, class piano and at least one performing ensemble. Course may be taken up to six times. Prerequisite: Permission of instructor. (SFCC)

NATURAL RESOURCE MANAGEMENT

NATRS 112 - Natural Resources Mathematical Applications (5 cr)
Students learn basic arithmetic and algebra skills necessary for application in the fields of natural and water resources. (SCC)

NATRS 120 - Basic Computer Applications in Natural Resources (2 cr)
This is a beginning course in the use of computers in natural resource management. Use of specific software in a setting similar to on-the-job computer use in natural resource management such as word processing, presentation and the Internet is emphasized. (SCC)

NATRS 122 - Natural Resources Trigonometric Applications (5 cr)
Students learn the fundamentals of graphing, statistics, geometry and trigonometry with emphasis on practical applications to the fields of natural and water resources. Prerequisite: NATRS 112 with a grade of 1.7 or higher or equivalent. (SCC)

NATRS 130 - Chainsaw Operation, Maintenance and Safety (3 cr)
Students learn the proper operation, care, maintenance and safety in the use of chainsaws. Practical applications and demonstrations are emphasized. (SCC)

NATRS 131 - Field Projects in Natural Resources (3 cr)
This course provides practical experience that allows students to gain additional knowledge in a special topic of interest in natural resources management. Guidance from the natural resources instructors is provided to help students maximize their projects. Prerequisite: Permission of instructor; must be a natural resources major. (SCC)

NATRS 133 - Field Projects in Natural Resources (3 cr)
This course provides practical experience that allows students to gain additional knowledge in a special topic of interest in natural resources management. Guidance from the natural resources instructors is provided to help students maximize their projects. Prerequisite: Permission of instructor; must be a natural resources major. (SCC)

NATRS 201 - Forest Protection (5 cr)
Students learn basic principles of fire control and behavior, and the control and identification of insect and disease damage to forest trees. (SCC)

NATRS 202 - Dendrology (5 cr)
This class combines lecture, lab, field trips and a variety of laboratory plant identification exercises. The majority of the class is held at Mt. Spokane State Park and the Newman Lake area describing and identifying forest plants. (SCC)

NATRS 203 - Forest Harvesting and Products (5 cr)
This course provides an overview of the wood products industry from the harvesting of raw material through its processing into a product. Students realize the connection between product specifications and their impact on harvesting equipment and techniques. Safety procedures when working around harvesting and processing equipment are practiced and stressed. Prerequisite: NATRS 204, 205 or permission of instructor. (SCC)

NATRS 204 - Maps and Aerial Photo Interpretation (5 cr)
Students learn the basic principles of interpretation and field use of aerial photographs relating to natural resources. Field use of planimetric and topographic maps is emphasized. Prerequisite: NATRS 112 or permission of instructor. (SCC)

NATRS 205 - Surveying (5 cr)
Students learn elementary surveying, including fundamentals of forest surveying, and use and care of equipment. Emphasis is on use of staff compass, Abney level, clinometer, tapes, transit and stadia rod. Prerequisite: NATRS 122 or permission of instructor. (SCC)

NATRS 209 - Silviculture (5 cr)
Students learn basic principles of timber stand improvement, cutting practices and forest regeneration methods. Prerequisite: ENVS 110, NATRS 112, 209, 215 or permission of instructor. (SCC)

NATRS 215 - Forest Measurements (5 cr)
Students learn basic principles of forest and natural resources sampling and measurement. Field work emphasizes correct use of forest measurements tools and instruments. Class work emphasizes calculations using measurements taken in the field. Prerequisite: NATRS 112 or permission of instructor. (SCC)

NATRS 216 - Forest Inventory (5 cr)
This course furthers the principles of forest measurements with emphasis on cruising, forest inventory, volume calculations and forest-type mapping. Prerequisite: NATRS 112 or permission of instructor. (SCC)

NATRS 217 - Freshwater Fisheries Biology (5 cr)
Students learn to identify fish and study biology, ecology, habitat requirements and management, hatchery propagation, stream enhancement and restoration procedures, and selected aquatic insect and riparian plant identification. (SCC)

NATRS 221 - Applications in Geographic Information Systems (4 cr)
This course builds on the basic cartographic skills developed in ENVS 220. Students work independently to problem solve within the framework of ESRI's ArcGIS suite of software. The course focuses on the professional application of geoprocessing tools to the analysis of raster and vector data and the integration of spatial data collected via GPS. Collaboration within a database, the effective management of metadata, and sharing data are emphasized. Prerequisite: ENVS 220 or permission of instructor. (SCC)

NATRS 225 - Natural Resources Occupational Experience (1-12 cr)
This practical course assists students in pursuing careers in natural resources. Students learn to complete specific employment applications, resumes and letters of inquiry, and employment portfolios. Students also contact employers for interviews and follow-up. Students are required to evaluate their work experience and submit comprehensive written and oral reports. Prerequisite: Natural resources students only or permission of instructor and concurrent enrollment in the natural resources program. (SCC)

NATRS 230 - Global Positioning Systems (3 cr)
This course teaches students to use global positioning systems to collect, prepare, and map static and kinematic data. Using GPS to find points in the field is practiced as well. Prerequisite: NATRS 120, 122, 204 or permission of instructor. (SCC)

NATRS 231 - Field Projects in Natural Resources (3 cr)
This course provides practical experience that allows students to gain additional knowledge in a special topic of interest in natural resources management. Guidance from the natural resources instructors is provided to help students maximize their projects. Prerequisite: Permission of instructor; must be a natural resources major. (SCC)

NATRS 232 - Field Projects in Natural Resources (3 cr)
This course provides practical experience that allows students to gain additional knowledge in a special topic of interest in natural resources management. Guidance from the natural resources instructors is provided to help students maximize their projects. Prerequisite: Permission of instructor; must be a natural resources major. (SCC)

NATRS 233 - Field Projects in Natural Resources (3 cr)
This course provides practical experience that allows students to gain additional knowledge in a special topic of interest in natural resources management. Guidance from the natural resources instructors is provided to help students maximize their projects. Prerequisite: Permission of instructor; must be a natural resources major. (SCC)

NURSING

NURS 101 - Foundational Principles in Nursing (3 cr)
This course introduces the foundation of nursing principles'. Students will be introduced to the nursing concepts of critical thinking, safety, time management and communication as they relate to patient assessment and patient care. This course is a concept based course specifically focusing on nursing process, caring, assessment and accountability. Prerequisite: Acceptance into the nursing program. (SCC)

NURS 102 - Application of Foundational Principles in Nursing (5 cr)
This course applies the knowledge from NURS 101 to the clinical practice. Students will apply the nursing concepts of critical thinking safety, time management and communication as they relate to patient assessment and patient care. This course is a concept based course specifically applying the nursing process, caring, assessment and accountability to patient care settings. This course will include laboratory and clinical application of nursing concepts. Grading option: Pass/fail. Prerequisite: Acceptance into the nursing program. (SCC)

NURS 104 - Nursing Care of Patients Across the Lifespan (3 cr)
This course builds from the knowledge from NURS 101, 102, and NUTRI 251. Students will continue to associate the nursing concepts of critical thinking, safety, time management and communication as they relate to patient care across the lifespan. This course focuses on the care of the patient from pediatrics to geriatrics. This course is a concept based course specifically identifying and discussing the concepts of health, wellness, and illness; teaching and learning; growth and development; mobility; comfort; grief and loss; sleep and rest; cellular regulation; metabolism; infection; and oxygenation. Prerequisite: Completion of the previous quarter. (SCC)

NURS 105 - Application of Nursing Care of Patients Across the Lifespan (5 cr)
This course builds from the knowledge from NURS 101,102, and NUTRI 251. Students will apply the nursing concepts of critical thinking, safety, time management and communication as they relate to patient care across the lifespan. This course focuses on the well patient from pediatrics to geriatrics. This course is a concept based course specifically applying the concepts health, wellness, and illness; teaching and learning; growth and development; mobility; comfort; grief and loss; sleep and rest; cellular regulation; metabolism; infection; and oxygenation in the clinical setting as they related to patient care across the lifespan. This course will include laboratory and clinical application of nursing concepts and pediatric outpatient clinical experiences. Grading option: Pass/fail. Prerequisite: Completion of the previous quarter. (SCC)

NURS 106 - PSYC 106/Psychosocial Issues in Healthcare I (2 cr)
In this course, students will begin to examine the determinants of health and illness to include social, psychosocial, environmental, spiritual and cultural dimensions across the lifespan and within the context of health care. Prerequisite: Completion of the previous quarter. (SCC)

NURS 108 - Nursing Assistant Certified (6 cr)
This course prepares the student to provide direct patient care in hospitals, nursing homes, convalescent centers and home health care settings. The Nursing Assistant Certified has direct contact with the patients and residents in these settings in the process of providing care for their basic daily needs. It teaches about the care of patients in a variety of health care settings. Students learn to recognize the patient's physical, social and emotional needs and to care for these patients and meet their needs in a caring manner. Grade option: Pass/fail. (SCC)

NURS 110 - Pharmacology in Nursing Practice (2 cr)
This course introduces the students to the foundational principles of pharmacotherapy. The course includes pharmacokinetics, pharmacodynamics, pharmacotherapeutics, and safe administration. The concepts of safety, communication, critical thinking and time management are introduced as they apply to medication administration. Prerequisite: Completion of the previous quarter. (SCC)

NURS 111 - Nursing Care of the Acute Patient (4 cr)
This course builds from the knowledge from NURS 101, 102, 104, and 105. Students will continue to interpret and discuss the nursing concepts of critical thinking, safety, time management and communication as they relate to patients with acute health problems. This course is a concept based course specifically exploring the concepts of clinical decision making, collaboration, evidenced based practice, fluid & electrolytes, oxygenation, perfusion, elimination, cognition, metabolism, nursing management, and acid base balance. Prerequisite: Completion of the previous quarter. (SCC)

NURS 112 - Application of Nursing Care of the Acute Patient (5 cr)
This course builds from the knowledge from NURS 101,102,104,105. Students will continue to apply the nursing concepts of critical thinking, safety, time management and communication as they relate to patients with acute health problems. This course is a concept based course specifically applying the concepts of clinical decision making, collaboration, evidenced based practice, fluid & electrolytes, oxygenation, perfusion, and acid based balance in the clinical setting. This course will include laboratory and clinical application and demonstration of nursing concepts. Grading option: Pass/fail. Prerequisite: Completion of the previous quarter. (SCC)

NURS 113 - PSYC 113/Psychosocial Issues in Healthcare II (3 cr)
This course is a continuation of NURS 106, where students will continue to examine the determinants of health and illness including social, psychological, environmental, spiritual and cultural dimensions across the lifespan and within the context of healthcare. Prerequisite: Completion of the previous quarter. (SCC)

NURS 200 - Care of the Developing Family (3 cr)
This course builds from the knowledge from year one for the nursing program. Students will continue to build the nursing concepts of critical thinking, safety, time management and communication as they relate to childbearing women and their families. This course is a concept based course specifically focusing the concepts of assessment and caring as they apply to maternal and perinatal health. Prerequisite: Completion of the previous quarter. (SCC)

NURS 201 - Application of Care of the Developing Family (2 cr)
This course builds from the knowledge from year one for the nursing program. Students will continue to build their knowledge and understanding of the nursing concepts of critical thinking, safety, time management, and communication as they relate to childbearing women and their families. This course is a concept based course specifically applying the concepts of assessment and caring to patient in a maternity/newborn acute care setting, by demonstrating assessment and care of newborn and postpartum maternal patients in the hospital environment. Grading option: Pass/fail. Prerequisite: Completion of the previous quarter. (SCC)

NURS 202 - PHIL 202/Ethics and Policy in Healthcare I (3 cr)
This course introduces ethical principles that shape the practice of healthcare professionals and are used to develop healthcare policies. This course is a concept based course introducing ethics, legal issues and health policy to nursing practice. Prerequisite: Completion of the previous quarter. (SCC)

NURS 203 - Care of the Mental Health Patient (3 cr)
This course builds from the knowledge from year one for the nursing program. Students will continue to apply the nursing concepts of critical thinking, safety, time management and communication as they relate to the mental health of patients across the lifespan. This course is a concept based course specifically interpreting and examining the concepts and how the concepts related to the assessment and care of, and therapeutic communication with, the patient in a variety of mental health settings. This includes demonstration of mental health status examination. Prerequisite: Completion of the previous quarter. (SCC)

NURS 204 - Application of Care of the Mental Health Patient (2 cr)
This course builds from the knowledge from year one for the nursing program. Students will continue to apply the nursing concepts of critical thinking, safety, time management and communication as they relate to the mental health of patients across the lifespan. This course is a concept based course specifically applying the concepts of therapeutic communication, assessment and caring to patient in a variety of mental health clinical settings. Grading option: Pass/fail. Prerequisite: Completion of the previous quarter. (SCC)

NURS 205 - Nursing Care of the Critically Ill Patient (5 cr)
This course builds from the knowledge from year one for the nursing program. Students will continue to apply the nursing concepts of critical thinking, safety, time management and communication as they relate to the critically ill patient. This course integrates and builds on the concepts of oxygenation, perfusion, acid-base balance, immunity, infection and tissue integrity as it relates to the care of critically ill patients in the acute care setting. Prerequisite: Completion of the previous quarter. (SCC)

NURS 206 - Application of Nursing Care of the Critically Ill Patient (6 cr)
This course builds from the knowledge from year one for the nursing program. Students will continue to apply the nursing concepts of critical thinking, safety, time management and communication as they relate to the critically ill patient. This course advances the application of the concepts of oxygenation, perfusion, acid-base balance, immunity, infection and tissue integrity as it applies to critically ill patients in the acute care setting. This course will include laboratory and clinical application of stated nursing concepts. Grading option: Pass/fail. Prerequisite: Completion of the previous quarter. (SCC)

NURS 207 - PHIL 207/Ethics and Policy in Healthcare II (2 cr)
This course builds from the content introduced in NURS 202. Students apply the ethical principles that are used to develop and implement healthcare policies in a variety of healthcare settings. Prerequisite: Completion of the previous quarter. (SCC)

NURS 208 - Capstone Experience in Nursing (6 cr)
This course is the culmination of all previous nursing quarters into a capstone experience. Students will continue to apply the nursing concepts of critical thinking, safety, time management and communication as they relate to patients in multiple care settings. This course applies the concepts of accountability, collaboration, comfort and technical skills in a capstone experience. Grading option: Pass/fail. Prerequisite: Completion of the previous quarter. (SCC)

NURS 209 - Leadership Principles in Nursing Care (4 cr)
This course prepares the student for transition to professional practice. Students evaluate key leadership principles and strategies to prepare for licensure. Students integrate and evaluate concepts of accountability and collaboration as they transition to a Registered Nurse. Prerequisite: Completion of the previous quarter. (SCC)

NURS 210 - Simulation in Nursing Practices (2 cr)
This course synthesizes nursing concepts, introduced across the nursing program, in a simulated clinical environment. Students collaborate with interdisciplinary partners to prepare for practice as a Registered Nurse. Grading option: Pass/fail. Prerequisite: Completion of the previous quarter. (SCC)

NURS 299 - Independent Study in Nursing (1-13 cr)
This course is designed for students wishing to complete specialized studies in the field of nursing. Objectives are developed jointly by the student and instructor. Prerequisite: Current enrollment in the Nursing program or permission of instructor. (SCC)

NUTRITION

NUTRI 150 - General Nutrition (3 cr)
Fundamental concepts, theories and terminology of nutrition, including all classes of essential nutrients with respect to properties, functions, deficiencies, toxicities, dietary requirements and major food sources are covered in this class. Current controversial applied nutrition topics are included in many subject areas. (SCC)

NUTRI 251 - Nutrition in Healthcare (5 cr)
The science that studies food and its relation to human health and performance. The various nutrients and their functions in human metabolism are examined. Essential nutrients are studied with respect to properties, functions, deficiencies, toxicities, dietary requirements and major food sources. Prerequisite: BIOL& 242 or permission of instructor. (SCC, SFCC)

OCCUPATIONAL THERAPY ASSISTANT

OTA 101 - Foundation of Occupational Therapy (3 cr)
An overview of the profession of occupational therapy. Includes the history of the profession, professional standards and organizations, ethics standards, working definitions and role deleneations between OT and OTA, and between OT and other allied health professions. Emphasizes presentation skills, APA guidelines and learning styles for program success. Prerequisite: Acceptance into the program. (SFCC)

OTA 102 - Occupational Therapy Terminology (1 cr)
Supervised self-study of terminology and abbreviations used to describe the anatomy, physiology, and pathology of the body systems used in relationship to the practice of physical and occupational therapy. Terms associated with diagnostics, surgery, laboratory tests, pharmacology, and patient care will be included. Prerequisite: Acceptance into the OTA program. (SFCC)

OTA 103 - Applied Anatomy (2 cr)
Course offering includes instruction in human anatomy with an emphasis on the musculoskeletal system, external palpation and identification of structures and relationship to function. Introduction to kinesiology. Prerequisite: Grade of 2.0 in OTA courses. (SFCC)

OTA 104 - Survey of Pathophysiology (5 cr)
Basic overview of disease processes including general pathological responses and the physiology of healing and repair. Description of specific diseases and conditions and the medical and surgical forms of treatment as they relate to rehabilitation. Prerequisite: Grade of 2.0 or better in OTA courses or permission of instructor. (SFCC)

OTA 105 - Introduction to Neuroscience (4 cr)
Introduction to the structures and basic functions of the nervous system in relationship to occupational therapy treatment of patients with neurological lesions and disease processes. Prerequisite: Grade of 2.0 or better in previous OTA courses or permission of instructor. (SFCC)

OTA 106 - Regional Human Anatomy and Physiology (5 cr)
Study of human body structure and function with emphasis on muscles, and circulatory, respiratory, endocrine, and nervous systems. This course is specially designed to meet the needs of students becoming an OTA. Prerequisite: Grade of 2.0 or better in previous OTA courses or permission of instructor. (SFCC)

OTA 107 - Human Development Through the Lifespan (2 cr)
A survey of human development focusing on the physical, cognitive, psychological and emotional/social processes from infancy through older adulthood. Topics include: Overview of major development theories; common research designs in developmental research; developmental milestones; typical and atypical development, culture and spectrum of “normal”; application of concepts of human development to the practice of occupational therapy. Prerequisite: 2.0 or better in OTA courses. (SFCC)

OTA 110 - OTA Procedures (2 cr)
This course is designed to give occupational therapy assistant students basic knowledge in patient care, clinical procedures, managing infections, transfer, client handling techniques, assistive mobility equipment in preparation for the patient care and treatment environment. Prerequisite: Acceptance into the OTA program. (SFCC)

OTA 111 - Activity Analysis (3 cr)
Class provides opportunities to develop a foundation of knowledge and skills for the assessment and treatment of occupational performance through activity analysis. Prerequisite: Grade of 2.0 or better in OTA courses. (SFCC)

OTA 112 - Occupational Performance and Physical Disabilities (3 cr)
Course explores the role of the occupational therapy assistant in physical disabilities settings. Instruction in occupational performance, restoration techniques for daily living skills, use of assistive devices, and selected occupational performance activities, use of the OT Process. Prerequisite: Grade of 2.0 in OTA courses. (SFCC)

OTA 113 - Occupational Therapy Principles (3 cr)
Course applies occupational therapy principles, frames of reference, and theories integrating Occupational Therapy Practice Framework with occupational performance. Student gains knowledge in clinical reasoning as related to the therapy process, and a more in -depth study of the Occupational Therapy Process. Course also includes evidenced-based practice and the application to clinical decisions as an OTA. Prerequisite: 2.0 or better in OTA courses. (SFCC)

OTA 114 - Therapeutic Activities (3 cr)
This course provides occupational therapy assistant students basic knowledge of assessments used in therapeutic environments, introduction to emerging practice areas and activity modification for infant through older populations. Prerequisite: Acceptance into the OTA program. (SFCC)

OTA 120 - OTA Procedures Lab (2 cr)
This course provides occupational therapy assistant students basic knowledge and skills in patient care, clinical procedures, managing infections, transfer, client handling techniques, assistive mobility equipment, and basic physical modalities in preparation for the patient care and treatment environment. Prerequisite: Acceptance into the OTA program. (SFCC)

OTA 122 - Occupational Performance and Physical Disabilities Lab (2 cr)
Lab course explores through functional application, the role of the occupational therapy assistant in physical disabilities settings. Instruction in occupational performance, restoration techniques for daily living skills, use of assistive devices, and selected occupational performance activities. Prerequisite: Grade of 2.0 in OTA courses. (SFCC)

OTA 123 - Applied Anatomy Lab (2 cr)
Lab course provides functional application and practice in human anatomy with an emphasis on the musculoskeletal system, external palpation, manual muscle testing, range of motion testing and identification of structures and relationship to function. Introduction to kinesiology. Prerequisite: Grade of 2.0 in OTA courses. (SFCC)

OTA 124 - Therapeutic Activities Lab (2 cr)
This course provides occupational therapy assistant students basic knowledge and hands-on skills in assessment administration, emerging practice areas and activity modification/fabrication across the lifespan. Prerequisite: Acceptance into the OTA program. (SFCC)

OTA 127 - Human Development Through the Lifespan Lab (1 cr)
Human development lab applying physical, cognitive, psychological and socio-emotional concepts from infancy through older adulthood to the Occupational Therapy Practice Framework. Topics include application of variety of human developmental theories to support optimal development throughout the lifespan; analysis of effect of features of typical and atypical development on occupation and roles; exploration of range of “normal” including role of culture in defining “normal”; analysis of developmental considerations of many aspects of the OT practice framework; identification of everyday examples of developmental concepts in the media and daily life. Prerequisite: 2.0 or better in OTA courses. (SFCC)

OTA 151 - Level I Clinical Fieldwork 1- Physical Disabilities (1 cr)
One credit fieldwork course consisting of observation and application of knowledge and skills learned thus far in OTA curriculum to actual OT practice in a physical disabilities setting under direct supervision of a licensed practitioner. Prerequisite: Grade of 2.0 or better in OTA courses. (SFCC)

OTA 161 - Documentation for the Occupational Therapy Assistant (1 cr)
Instruction and application of clinical documentation as needed by the occupational therapy assistant. Course focuses on SOAP notes, goal-writing and articulating observation skills in a wide variety of clinical settings. Prerequisite: Grade of 2.0 or better in OTA courses. (SFCC)

OTA 201 - Issues in Occupational Therapy and Health Care (2 cr)
Survey of medical, ethical, legal, and psychosocial and relational issues relating to the role of the Occupational Therapy Assistant in the delivery of health care services. Course also includes professional growth, ethics, reimbursement and documentation, patient motivation/communication, assertiveness; adjustment to disability, resume and interview skills, and preparation for continuing education and professional development. Prerequisite: 2.0 or better in OTA courses. (SFCC)

OTA 202 - Group Dynamics (2 cr)
Course provides instruction for effective interpersonal communication in clinical settings. Emphasis is placed on basic listening skills, providing meaningful feedback, and cultivating group skills. This course utilizes both peer feedback and engagement of therapeutic use of self. Prerequisite: 2.0 or higher in OTA courses. (SFCC)

OTA 203 - Management for the Occupational Therapy Assistant (2 cr)
This course is designed to introduce the OTA student to the concepts of management, administrative positions, change theories and financial issues associated with health care. In addition, it will familiarize the OTA with the traits associated with leadership and mentoring within the profession of occupational therapy. Prerequisite: Grade of 2.0 or better in OTA courses. (SFCC)

OTA 210 - Occupational Performance and Mental Health (3 cr)
Course addresses acute and chronic psychosocial dysfunction conditions and occupational therapy’s role in providing service. Topics include OTA’s role in interventions, theory, evaluation, and treatment planning. Prerequisite: 2.0 or better in OTA courses. (SFCC)

OTA 212 - Occupational Performance and Children (3 cr)
Course examines child development and occupational therapy practice for individuals from birth through age 21, with a focus on physical and developmental disabilities, neurological dysfunctions and sensory processing concerns. Includes theory, assessment, treatment plan and intervention for this population. Prerequisite: 2.0 or better in OTA courses. (SFCC)

OTA 220 - Occupational Performance and Mental Health Lab (2 cr)
Course addresses acute and chronic psychosocial dysfunction conditions and occupational therapy’s role in providing service. Topics include OTA’s role in interventions, theory, evaluation, and treatment planning. Prerequisite: 2.0 or better in OTA courses. (SFCC)

OTA 221 - Occupational Performance and Aging (3 cr)
Exploration of therapeutic approaches with aging population and individuals with chronic disabling conditions. Occupational Therapy Practice Framework as well as productive activities, daily living skills, social participation, medication management, use of orthotic devices and adaptive equipment, work, and leisure are explored. Prerequisite: 2.0 or better in OTA courses. (SFCC)

OTA 231 - Occupational Performance and Aging Lab (2 cr)
Hands on exploration of therapeutic approaches with aging population and individuals with chronic disabling conditions. Occupational Therapy Practice Framework as well as productive activities, daily living skills, social participation, work, and leisure are explored. Prerequisite: 2.0 or better in OTA courses. (SFCC)

OTA 232 - Group Dynamics Lab (1 cr)
Course is designed to develop effective interpersonal communication in clinical settings through lab instruction and practice. Emphasis is placed on basic listening skills, providing meaningful feedback, and cultivating group skills. This course utilizes both peer feedback and engagement of therapeutic use of self. Prerequisite: 2.0 or higher in OTA courses. (SFCC)

OTA 242 - Occupational Performance and Children Lab (2 cr)
Lab course examines child development and occupational therapy practice for individuals from birth through 21, with a focus on physical and developmental disabilities, neurological dysfunctions and sensory processing concerns. Includes assessment, treatment plan and intervention, lab experiences related to treatment techniques and demonstration of knowledge of developmental stages in infants and children. Prerequisite: 2.0 or better in OTA courses. (SFCC)

OTA 251 - Level I Clinical Fieldwork II- Pediatrics and Mental Health (1 cr)
Fieldwork course consisting of observation and application of knowledge and skills learned thus far in OTA curriculum to actual OT practice in both a pediatric and mental health setting under direct supervision of a licensed practitioner. Prerequisite: Grade of 2.0 or better in OTA courses. (SFCC)

OTA 252 - Level I Clinical Fieldwork III (1 cr)
This course includes observation of community settings serving the unique needs of older adults who have experienced substantial change in independence due to age related changes. This course will explore how these settings inform the practice of occupational therapy. This is the final level I fieldwork in a setting focused on specific needs (acute and/or chronic) of the older adult. This course will also provide a clinical skills review and practice seminar to prepare for Fieldwork II. Prerequisite: Grade of 2.0 or better in OTA courses. (SFCC)

OTA 253 - Level II Clinical Fieldwork 1a (4 cr)
This course is the first half of the eight week Level II fieldwork in contracted community facility. Level II fieldwork is a full time clinical experience designed to develop the student's skills from those of student to entry level OTA practitioner. The learning objectives for a Level II fieldwork are established by the American Occupational Therapy Association and are the items on the student fieldwork performance evaluation. Supervision is initially "direct and then decreased to less direct supervision as is appropriate for the setting, the severity of the client's condition and the ability of the student" (ACOTE C.1.16). Grading option: Pass/Fail. Prerequisite: 2.0 or better in OTA courses and Concurrent Enrollment in OTA 263. (SFCC)

OTA 254 - Level II Clinical Fieldwork 1b (4 cr)
This course is the second half of the eight week Level II fieldwork experience. Level II fieldwork is a full time clinical experience designed to develop the student's skills from those of student to entry level OTA practitioner. The learning objectives for a Level II fieldwork are established by the American Occupational Therapy Association and are the items on the student fieldwork performance evaluation. Supervision is initially" direct and then decreased to less direct supervision as is appropriate for the setting, the severity of the client's condition and the ability of the student (C.1.16). Grading option: Pass/fail. Prerequisite: 2.0 or better in OTA courses and Concurrent Enrollment in OTA 263. (SFCC)

OTA 255 - Level II Clinical Fieldwork 2 (8 cr)
One of two full time, eight week Level II fieldwork experiences to attain ACOTE requirement of 16 weeks full time fieldwork, in a practice setting different from OTA 253 and OTA 254 Level II fieldwork. The purpose of this Level II fieldwork is for the student to develop skills from student to entry level OTA practitioner in a second practice area. Supervision is initially "direct and then decreased to less direct supervision as is appropriate for the setting, the severity of the client's condition and the ability of the student (C.1.16). This course is graded Pass/Fail. (SFCC)

OTA 261 - Level II Fieldwork Skills Seminar (1 cr)
Seminar course designed to augment OTA 251 Level I fieldwork and prepare student for Level II fieldwork. Seminar course focuses on professional behaviors, clinical expectations, therapeutic relationships, professional relationships, fieldwork process, ACOTE and school standards for fieldwork experience, future role as fieldwork supervisor. Prerequisite: 2.0 or better in OTA courses. (SFCC)

OTA 263 - Fieldwork II Seminar 1 (1 cr)
Fieldwork seminar hybrid course designed to support the student in deepening critical thinking, understanding during Level II fieldwork, provide classroom support as a learning community during the Level II fieldwork experiences. Grading option: Pass/Fail Prerequisite: 2.0 or better in OTA courses. (SFCC)

OTA 264 - Fieldwork II Seminar 2 (1 cr)
Fieldwork seminar online course designed to support the student in deepening critical thinking, understanding during Level II fieldwork, provide online support as a learning community during the Level II fieldwork experiences. Prerequisite: 2.0 or better in previous OTA courses. (SFCC)

OCEANOGRAPHY

OCEA& 101 - Intro to Oceanography (5 cr)
This course introduces students to the principles of Marine Science; the physical and chemical properties of Seawater; the fundamentals of Biology; the Organisms of the Sea; the structure and function of Marine Ecosystem; and the relationship of Humans to the Sea. (SCC)

ORTHOTIC-PROSTHETIC TECHNICIAN

OR-PR 111 - Foundations of Prosthetics (4 cr)
Become familiar with prosthetic bench tools and equipment, acquire basic proven tool operation skills, classify the general areas of the lab and use of special prosthetic equipment in the lab. As a prosthetic technician students work with many materials such as metals, leather, wood, plastic, etc. This course introduces students to the materials commonly used in prosthetics. (SFCC)

OR-PR 112 - Transtibial Musculoskeletal Anatomy (2 cr)
In order for the orthotic prosthetic technician to correctly fabricate orthotic and prosthetic devices, a basic knowledge of the muscles and bones of the human body is necessary. Prerequisite: OR-PR 111. (SFCC)

OR-PR 114 - Transtibial Prosthetics I (6 cr)
The technician learns to identify lower limb prosthetic components, interpret measurement charts, prepare PVA sleeves, lay up PTB socket, fabricate PTB soft insert, laminate PTB socket utilizing vacuum, prepare SACH feet, statically align and assemble unfinished PTB, fabricate the PTB knee cuff, fabricate the PTB waist belt with suspension attachment, duplicate alignment, shape and hollow out prosthesis, lay up and laminate the PTB prosthesis, and finish and assemble the below-knee prosthesis. Prerequisite: OR-PR 111, 112. (SFCC)

OR-PR 122 - Transfemoral Musculoskeletal Anatomy (1 cr)
A basic understanding of the musculoskeletal anatomy of the transfemoral residual limb is presented in this course. Prerequisite: OR-PR 111, 112, 114. (SFCC)

OR-PR 124 - Transtibial Prosthetics II (6 cr)
Identify endoskeletal components, fabricate model, check socket, and liner for endoskeletal prosthesis, laminate endoskeletal socket, assemble, align and shape endoskeletal prosthesis. Prepare plaster model for locking liner prosthesis, prepare shuttle lock installation, fabricate check socket, assemble and align temporary prosthesis, transfer alignment, fabricate definitive socket, complete alignment transfer. Syme and partial foot prosthetics (discussion). Prerequisite: OR-PR 111, 112, 114, 122. (SFCC)

OR-PR 126 - Transfemoral Prosthetics (5 cr)
Interpret orthometry form for Transfemoral prosthesis, form a plaster model, fabricate check socket and flexible socket, layup and laminate outer frame for Transfemoral socket, assemble prosthesis and provide bench alignment on vertical pylon and polycentric knee. Interpret orthometry form for second Transfemoral prosthesis, form a plaster model, fabricate check socket and flexible socket, layup and laminate outer frame for Transfemoral socket, assemble prosthesis and provide bench alignment on pyramid components and single axis knee, fabricate foam cosmetic cover. (SFCC)

OR-PR 132 - Upper Extremity Musculoskeletal Anatomy (1 cr)
Musculoskeletal anatomy of the upper extremity relevant to the prosthetic technician is presented. Prerequisite: OR-PR 111, 112, 114, 122, 124, 126. (SFCC)

OR-PR 134 - Transradial Prosthetics (6 cr)
This course extends the concepts and principles attained in earlier coursework to the fabrication of upper extremity prostheses. Two transradial devices are fabricated utilizing different components for a long and short transradial prosthesis. Students are introduced to the array of components available to the upper extremity amputee. Prerequisite: OR-PR 111, 112, 114, 122, 124, 126, 132. (SFCC)

OR-PR 136 - Transhumeral Prosthetics (5 cr)
The design and fabrication of transhumeral prostheses are included in this course. Students extend their lamination skills to the use of acrylic resins. Variations of thermoplastic fabrication are introduced. Syme and partial foot prostheses are included to satisfy accreditation requirements. Prerequisite: OR-PR 111, 112, 114, 122, 124, 126, 132, 134. (SFCC)

OR-PR 138 - Prosthetics Practicum (6 cr)
Students practice at an off-campus prosthetic facility to integrate attained fabrication skills and workplace habits in an authentic working environment. Prerequisite: OR-PR 111, 112, 114, 122, 124, 126, 132, 134, 136. (SFCC)

OR-PR 141 - Foundations of Orthotics (6 cr)
This basic course introduces the student to the tools, materials and equipment common to the modern orthotic practice. Training is provided regarding the governance of the profession and the role of each member of the orthotic prosthetic healthcare team. Students learn through guided practice how to work in the laboratory setting safely to perform basic fabrication procedures related to simple tools and components used in an O&P environment. (SFCC) (SFCC)

OR-PR 142 - Spinal Musculoskeletal Anatomy (2 cr)
The basic anatomical structure of the musculoskeletal system is introduced with an emphasis on the spine along with terminology and concepts of anatomy relative to the orthotic technician. Prerequisite: OR-PR 141 (SFCC)

OR-PR 144 - Spinal Orthotics (4 cr)
Students learn to interpret measurement forms for fabrication of spinal orthotic devices. Students also acquire skills in fabricating spinal orthotic devices with an emphasis on metal shaping and plaster model rectification. Fabrication includes a metal lumbosacral frame and two thermoplastic thoracolumbar orthotic devices. Prerequisite: OR-PR 141, 142. (SFCC)

OR-PR 152 - Lower Extremity Musculoskeletal Anatomy 1-Lower Leg, Foot & Ankle (1 cr)
This is a basic skeletal anatomy course focusing on the foot, ankle, and lower leg. Prerequisite: OR-PR 141, 142, 144 (SFCC)

OR-PR 154 - Foot Orthoses and Footwear Modifications (3 cr)
This course emphasizes shoe modifications and foot orthoses to improve skeletal alignment, reduce localized tissue pressure, reduce or prevent deformity and enhance gait outcomes for the patient. Prerequisite: OR-PR 141, 142, 144, 152 (SFCC)

OR-PR 156 - Lower Extremity Orthotics 1-Ankle-Foot Orthoses (AFOs) (8 cr)
Students learn the fundamentals of fabricating traditional and advanced ankle foot orthoses in both metal and plastic. Prerequisite: OR-PR 141, 142, 144, 152, 154. (SFCC)

OR-PR 162 - Lower Extremity Musculoskeletal Anatomy 2-Knee, Upper Leg, & Hip (1 cr)
A continuation course of musculoskeletal anatomy centered on the knee, hip and thigh in preparation of fabricating KAFO devices. Prerequisite: OR-PR 141, 142, 144, 152, 154, 156 (SFCC)

OR-PR 164 - Lower Extremity Orthotics 2-Knee-Ankle-Foot Orthoses (KAFOs) (8 cr)
This course is dedicated to the fabrication of metal and plastic KAFO devices using various knee and ankle controls. Prerequisite: OR-PR 141, 142, 144, 152, 154, 156, 162 (SFCC)

OR-PR 172 - Upper Extremity Musculoskeletal Anatomy (1 cr)
This is a basic musculoskeletal anatomy course focusing on the upper extremity and hand. Prerequisite: OR-PR 141, 142, 144, 152, 154, 156, 162, 164. (SFCC)

OR-PR 174 - Upper Extremity Orthotics (2 cr)
Students practice the fabrication of various metal and plastic orthotic devices for the forearm, wrist and hand. Prerequisite: OR-PR 141, 142, 144, 152, 154, 156, 162, 164, 172 (SFCC)

OR-PR 178 - Orthotics Practicum (6 cr)
Students practice at an off-campus orthotic facility to integrate attained fabrication skills and workplace habits in an authentic working environment. Prerequisite: OR-PR 141, 142, 144, 152, 154, 156, 162, 164, 172, 174 (SFCC)

OR-PR 180 - Orthotic Fitter (2 cr)
An orthotic fitter is an allied health professional specifically educated and trained in the provision of certain orthoses. This includes fitting, adjusting or modifying devices that reflect the level of education and training received. (SFCC)

OR-PR 182 - Therapeutic Shoe Fitter (1 cr)
A therapeutic shoe fitter is an allied health professional specifically educated and trained to provide non-custom therapeutic shoes and non-custom multi-density inserts. This includes fitting, adjusting or modifying devices that reflect the level of education and training received. (SFCC)

OR-PR 184 - Mastectomy Fitter (1 cr)
A mastectomy fitter is an allied health professional specifically educated and trained in the provision of breast prostheses and post-mastectomy services. The education and training includes patient encounters, breast prostheses, fitter knowledge and skills, domains of practice, professional ethics, clinical documentation, and practice management. (SFCC)

OR-PR 186 - Introductory CAD CAM (1 cr)
An overview of how computer-aided design and computer-aided manufacturing can be applied as an alternate to the traditional tools and methodology of orthotic and prosthetic design and fabrication. (SFCC)

PARALEGAL

LA 100 - Legal Careers Orientation (1 cr)
This course assists students in choosing careers in the legal field. Students acquire professional development plans. Prerequisite: 60 percentile/42 scaled score or better on the written section of the college's assessment test. (SCC)

LA 101 - Introduction to Paralegalism (2 cr)
Students learn the role of a paralegal in typical legal settings. Prerequisite: LA 100. (SCC)

LA 102 - Introduction to Legal Nursing (1 cr)
This course is a survey of the various roles for legal nurses across a spectrum of legal settings. Additionally, the course examines the professional demands, skills and expectations of the profession. Prerequisite: Permission of instructor/coordinator. (SCC)

LA 105 - Washington and Idaho Court Rules (3 cr)
Students learn to research Washington Court Rules for district, superior, appellate and federal court systems. Interpretation and application of rules as they relate to law office procedures are emphasized. Students also learn to distinguish procedural from substantive rules. The interrelationship of rules to the Washington Digest, Revised Code of Washington (RCW) and Appellate Court requirements is presented. Students review the Idaho Rules of Civil Procedures and Idaho rules of Criminal Procedure emphasizing how these rules differ from the Federal Rules of Civil Procedure. (SCC)

LA 110 - Legal Research and Writing (5 cr)
This course specifies practical use of legal resource tools on municipals, state and federal levels. Students learn to draft and prepare legal instruments and documents. Prerequisite: ENGL& 101. (SCC)

LA 118 - Instrument Drafting (3 cr)
This intensive course is for students who are at the end of their paralegal/legal nurse education. Frequent hands-on drafting, critiquing, editing, rewriting, and presenting representative legal instruments in litigation, domestic, criminal, real estate and commercial law are emphasized. Students can expect to experience a rapid improvement in their writing and thinking skills irrespective of their level prior to enrollment. Prerequisite: Permission of instructor. (SCC)

LA 120 - Law Office Computing (5 cr)
Students are introduced to high levels of streamlining and automating word processing functions in a law office. Macros, merging, creating, editing and formatting legal documents are emphasized. Prerequisite: Two college-level computer classes (CIS or LSEC) with a grade of 2.0 or higher; one of which must be LSEC 239. (SCC)

LA 125 - Law Office Procedures and Technology (3 cr)
Survey of standard Law Office Procedures emphasizing professional organizational and critical thinking skills. Prerequisite: Permission of instructor/coordinator. (SCC)

LA 130 - Legal Ethics (1-3 cr)
This course introduces the rules of professional conduct that govern the practice of paralegals/LLLTs. Topics include conflicts of interest, confidentiality, professionalism, advertising and solicitation, client funds, etc. Prerequisite: Permission of instructor/coordinator. (SCC)

LA 135 - Professional Effectiveness (1 cr)
Students learn professional effectiveness and how to become successful in the legal environment. Prerequisite: Permission of instructor/coordinator. (SCC)

LA 201 - Introduction to Probate (3 cr)
Students study wills and the necessary administration of various categories of estates. Prerequisite: LA 110. (SCC)

LA 205 - Contracts (3 cr)
Survey of fundamentals of Contract Law emphasizing professional level legal reasoning and critical thinking skills. Prerequisite: Permission of instructor/coordinator. (SCC)

LA 207 - Domestic Relations and Estate Law (3 cr)
Students learn community property law characteristic of states in the western US. The law of marriage and dissolution of marriage is examined. Students study wills and the necessary administration of various categories of estates. (SCC)

LA 211 - Debtor-Creditor and Bankruptcy (3 cr)
Students study common law writs (attachments, garnishments, etc.), liquidation and reorganization bankruptcies, and the law of collection. Prerequisite: LA 110. (SCC)

LA 215 - Commercial Transaction (3 cr)
This course reviews the Uniform Commercial Code, commercial paper, bank and secure transactions, and electronic and bulk transfers. Various commercial statues are surveyed. (SCC)

LA 217 - Business Organizations (3 cr)
Students study partnership and corporation law for incorporation and administration of business in Washington state. (SCC)

LA 218 - Employment Law (3 cr)
Students review federal and state employment statutes governing hiring, termination, discrimination, affirmative action, workers' compensations and work-place safety. (SCC)

LA 219 - Criminal Law and Procedure (3 cr)
This course is an overview of the criminal justice system emphasizing the constitutional framework of criminal procedure. Prerequisite: LA 110. (SCC)

LA 220 - Torts (3 cr)
This course is a study of law that provides redress and compensation through a civil action. (SCC)

LA 221 - Property and Real Estate Transactions I (3 cr)
This course surveys Real Property Law covering estates in land. Real estate transactions including fundamentals of conveyancing law and statutes of frauds are emphasized. (SCC)

LA 223 - Interview and Investigation Techniques (3 cr)
Survey of commonly used and professionally appropriate Interviewing and Investigative Techniques emphasizing ethical standards, and critical reasoning and organizational skills. Prerequisite: Permission of instructor/coordinator. (SCC)

LA 225 - Trial Preparation and Procedures (3 cr)
Students study civil procedures and preparation of trial materials and their application to court rules. Pretrial preparation also is covered. (SCC)

LA 230 - Insurance Law (3 cr)
This course covers basic insurance terminology and presents a working knowledge of insurance laws that are frequently encountered in today's law office. (SCC)

LA 240 - Special Issues Seminar (1-10 cr)
Students survey various areas of the law, learn skills in critical thinking, and review new and emerging issues. The substance of the course varies. Prerequisite: Permission of instructor/coordinator. (SCC)

LA 241 - Evidence (3 cr)
This course will examine the rules governing evidence and a paralegal's role in the preparation of evidence for trial. Topics include relevancy; authentication; the 'Best Evidence' doctrine; character and habit evidence; competency of witneses; examination and impeachment of winesses; opinion and expert testimony; privilege; the hearsay rule and its exceptions. (SCC)

LA 245 - Supervised Legal Work Experience (1-8 cr)
This course provides an in-depth clinical experience required for all students enrolled in the paralegal or legal nurse programs. Students are supervised in the clinic by attorneys and the legal program coordinator. Students receive thorough experience in law office practices and procedures. Progress is monitored through a combination of in-class seminars and individualized instructor contact. Grading option: Pass/fail. Prerequisite: Permission of instructor/coordinator. (SCC)

LA 285 - Legal Office Internship (1-3 cr)
This course provides on-the-job learning experience for students while they attend classes at SCC. Students are able to apply the principles learned in the program to work in a law or law-related office under the supervision of an attorney or other legal professional. Grading option: Pass/fail. Prerequisite: Permission of instructor/coordinator. (SCC)

PHARMACY TECHNICIAN

PHARM 101 - Introduction to Pharmacy Technician (3 cr)
This course introduces students to practice roles of pharmacy technicians. Employment opportunities, medical terminology, drug dosage forms, IV infusion, introduction to prescription interpretation and pharmacy law are emphasized. (SCC)

PHARM 115 - Mathematics for Pharmacy Technicians (3-5 cr)
Students are introduced to the application of basic math skills to real-life scenarios in pharmacy technician career fields. This course includes review of basic skills, followed by applications of dosage calculations for IVs, tablets, liquids and injectables. Students are also introduced to the applications of math skills determined by body surface area, chemotherapy and pediatric dosing. (SCC)

PHARM 119 - Pharmacology (3 cr)
Students learn to identify drugs normally used in hospital and retail pharmacy settings. Therapeutic drug classifications, routes of administration, codes and abbreviations, and correct drug name spelling are emphasized. Students also learn to distinguish between generic and trade (brand) names of drugs. (SCC)

PHARM 122 - Advanced Pharmacology (5 cr)
Students learn to categorize the top 200 drugs into the major therapeutic classifications; distinguish between generic and brand names of drugs; identify accepted dosage forms, routes and dosing intervals of each drug. Human medical conditions relating to anatomy and physiology are emphasized. Prerequisite: PHARM 119. (SCC)

PHARM 123 - Hospital Pharmacy Dispensing and Management (5 cr)
Students learn to assist the pharmacist with preparing and dispensing prescription drugs within the hospital setting. Verbal and written communication skills are emphasized. Students are introduced to appropriate inventory control and purchasing. Prerequisite: PHARM 101, 119 with a 2.0 grade or better. (SCC)

PHARM 124 - Community Pharmacy Dispensing and Management (3 cr)
This course prepares students to develop the knowledge and skills needed to assist the pharmacist in preparing and dispensing prescription drugs in a community pharmacy setting. Verbal and written communications skills, prescription interpretation, and third party billing are emphasized. Prerequisite: PHARM 101, 119 with a 2.0 grade or better. (SCC)

PHARM 130 - Entering the Work Environment (2 cr)
This course prepares students for success in health careers. Students learn job-readiness skills including work ethics, professionalism, resume writing, communication skills and self-esteem. (SCC)

PHARM 131 - Pharmacy Law and Ethics (3 cr)
Students learn the law relating to pharmacy, agencies that regulate pharmacy practice and quality assurance. (SCC)

PHARM 132 - Community Pharmacy (6 cr)
The course introduces students to the procedures permitted the pharmacy technician in the state of Washington regarding community pharmacy. Prerequisite: PHARM 122, 123, 124 with a 2.0 grade or better. (SCC)

PHARM 133 - Hospital Pharmacy (6 cr)
This course offers clinical practice to perfect students' competence in performing pharmacy technician functions that take place under direct supervision of the pharmacist. Students work in a hospital pharmacy assisting the pharmacist. Prerequisite: Completion of all prior required courses with a 2.0 grade or better. (SCC)

PHILOSOPHY

PHIL& 101 - Intro to Philosophy (5 cr)
Designed to enable students to examine the fundamental problems in philosophy by reading selectively the writings of the significant philosophers and analyzing them in discussion seminars. The lectures are designed to develop a perspective and sense of continuity toward the growth of Western thought. (SCC, SFCC)

PHIL 110 - Intro to Ethics (5 cr)
A systematic and historical analysis of some of the problems in ethics. An examination of some of the principle ethical positions and the criteria for their solutions. (SFCC, SCC)

PHIL& 115 - Critical Thinking (5 cr)
An informal, non-symbolic introduction to logic and critical thinking emphasizing real-life examples, natural language applications, and the informal logical fallacies. (SFCC, SCC)

PHIL& 120 - Symbolic Logic (5 cr)
Introduction to modern symbolic logic emphasizing sentence logic with translation and proofs and quantificational logic with translation and proofs. Prerequisite: A 2.0 or better in Math 88, 97, 98, 99, or placement score in a 100 level or above MATH course. (SCC, SFCC)

PHIL 202 - NURS 202/Ethics and Policy in Healthcare I (3 cr)
This course introduces ethical principles that shape the practice of healthcare professionals and are used to develop healthcare policies. This course is a concept based course introducing ethics, legal issues and health policy to nursing practice. Prerequisite: Acceptance into the nursing program. (SCC)

PHIL 207 - NURS 207/Ethics and Policy in Healthcare II (2 cr)
This course builds from the content introduced in NURS 202. Students apply the ethical principles that are used to develop and implement healthcare policies in a variety of healthcare settings. Prerequisite: Acceptance into the nursing program. (SCC)

PHIL 209 - Eastern Philosophy (5 cr)
An introduction to the philosophical perspective and values of eastern cultures and traditions. (SCC, SFCC)

PHIL 215 - Environmental Philosophy (5 cr)
Students explore the philosophical relationship between human beings and the non-human world. The moral status of animals and ecosystems, anthropocentrism versus biocentrism, environmental economics and public policy, deep ecology, ecofeminism, and the idea of a "land ethic" are emphasized. (SFCC)

PHIL 220 - Philosophy of Religion (5 cr)
The course is designed to give the student an understanding of both classical and contemporary philosophy of religion by concentrating on the nature of religion, religious disagreements, the existence of God, the problem of evil, the relation between faith and reason, and religious language. (SCC, SFCC)

PHIL 231 - Modern Philosophical Problems (5 cr)
The course includes both purely philosophical and literary manifestations of existentialism. Treatment follows a historical progression from the 19th century forerunners of existentialism (Dostoevsky, Nietzsche, Kierkegaard) to the major modern representatives (Heidegger, Jaspers, Sartre and Camus). Prerequisite: PHIL& 101 or PHIL 110 or permission of instructor. (SCC, SFCC)

PHIL 330 - Professional Ethics (5 cr)
This course will examine ethical principles and considerations involved in making moral business decisions. Basic ethical viewpoints will be explored as a means to analyze specific characteristics of business life through particular cases and examples. Prerequisite: Applied BAS degree students only. (SFCC)

PHOTOGRAPHY

PHOTO 101 - Introduction to Photography (5 cr)
This course introduces black and white photography from a historical, artistic and experiential perspective. Students learn basic camera operation, printmaking and composition while exploring the cultural impact photography has on society. (SFCC)

PHOTO 102 - Photographic Appreciation (2 cr)
Students explore current and historical trends in photography and identify career opportunities in a wide variety of visual communication fields. Students discover the work of photographers and designers who have had significant impact on the field and learn to speak the "language" of photography in a professional environment. (SFCC)

PHOTO 111 - Studio Photography I (5 cr)
Students learn to control lighting and exposure in a studio environment while exploring a variety of subjects, including still life, commercial product and people photography. Students learn to identify the characteristics of light on a subject, operate studio lighting equipment and master a variety of metering techniques to calculate proper exposure. Prerequisite: PHOTO 101 or permission of instructor. (SFCC)

PHOTO 112 - Photographic Design (5 cr)
Students in this course discover the relationship between visual design and storytelling. This course explores the elements and principles of design, sequencing, juxtaposition, and visual communication strategies. In addition to this students survey the application of photography in a wide variety of contexts and careers. Students learn to assess their work and formulate criteria for critiquing images. Prerequisite: PHOTO 126 or permission of instructor. (SFCC)

PHOTO 120 - Photographic Arts (5 cr)
Students develop artistic interpretations of analog and digital images by applying alternative printing techniques. Topics include photo montages, mordencage, alternative color processes such as cyanotype and chromoskedasic, image transfers, and applying photographic images to non traditional substrates. Students learn to sequence and present images in handmade books. Prerequisite: PHOTO 101 or permission of department or division. (SFCC)

PHOTO 121 - Location Photography I (5 cr)
This course further applies the principles of studio photography by teaching students to analyze and modify lighting conditions on location. Students identify the effects of different types of light sources and apply supplemental lighting to make dynamic exposures of people, products, interior design and architectural landscapes. Prerequisite: PHOTO 101 or PHOTO 126 or permission of instructor. (SFCC)

PHOTO 126 - Digital Photography (5 cr)
Students explore the techniques and applications of acquiring, editing, and outputting digital photographic images. Emphasis is placed on camera operation and professional digital workflow. (SFCC)

PHOTO 131 - Introduction to Photojournalism (3 cr)
Students in this course assume the role of photojournalist while investigating the ethical issues involved with journalism in America. Students tell stories with pictures, develop an eye for alternative image perspectives, gather accurate assignment information and work with editors in a fast-paced environment. Students are provided an opportunity to visit with working professionals and to explore career opportunities in journalism. (SFCC)

PHOTO 132 - Advanced Black and White Photography (3 cr)
This course provides students an opportunity to fully explore the capabilities of black and white photography while learning the Zone system and advanced darkroom techniques. Prerequisite: PHOTO 101 or permission of instructor. (SFCC)

PHOTO 200 - Photography Media (4-5 cr)
This course focuses on photography as a communication tool. Students explore visual storytelling techniques and produce multimedia presentations that combine still-images, video clips, audio, text and graphics for web and print media. Prerequisite: PHOTO 126 or permission of instructor or concurrent enrollment in PHOTO 126. (SFCC)

PHOTO 225 - Portfolio Development (5 cr)
Students develop a comprehensive portfolio in preparation for entering their career field of choice. Projects include designing a physical portfolio, creating a digital portfolio, building a portfolio website, and creating a video reel. At the end of the class a panel of industry professionals will review student portfolios. (SFCC)

PHOTO 227 - Business of Photography (5 cr)
Students in this course set career goals and develop a comprehensive personal plan of action. Students gain knowledge of business practices unique to the field of photography, while taking inventory of the skills necessary to be successful. Topics include different methods for earning income, development of a step-by step strategy to achieve success, business contracts, customer service policies, marketing, financial breakdowns of pricing strategies, sales presentations, professional associations and sources for further education. (SFCC)

PHOTO 231 - Studio Photography II (5 cr)
Students expand their knowledge of a variety of lighting and metering techniques introduced in PHOTO 111 to create dynamic images of people and products for advertising layouts. Students develop problem-solving skills as they work with art directors, prepare bids and research current trends in commercial photography. Prerequisite: PHOTO 111 or permission of instructor. (SFCC)

PHOTO 232 - Portraiture (5 cr)
This class focuses on the skills necessary for working with people in the portrait photography field. Students discover lighting and posing techniques to augment an individual's appearance while exploring the variety of markets for portrait photography including high school seniors, weddings, families, executives, children and fine-art portraiture. Prerequisite: PHOTO 126 or permission of instructor. (SFCC)

PHOTO 233 - Location Photography II (5 cr)
Students in this course apply a variety of lighting, metering and color correction techniques introduced in PHOTO 121 to gain experience in the corporate, industrial, and fashion segments of commercial photography. Subjects vary from architectural design, corporate communication and working with fashion models on location. Prerequisite: PHOTO 121 or permission of instructor. (SFCC)

PHOTO 234 - Digital Photography II (5 cr)
Students in this course apply skills acquired in PHOTO 126 to create imaginative photographic illustrations and prepare them for publication utilizing color management techniques. An emphasis is placed on color management. Prerequisite: PHOTO 126. (SFCC)

PHOTO 235 - Nature and Landscape Photography (3 cr)
This course introduces students to nature and landscape photography. Students discover the elements and principles of design while participating in field trips in a variety of environments including wilderness, rural, and urban. In addition to this students survey the business of stock photography. Prerequisite: PHOTO 101 or permission of instructor. (SFCC)

PHOTO 236 - Photography Workshop (1-4 cr)
This class enables students to keep abreast of current trends and conduct research projects in various facets of photography. This course may be repeated for up to 12 credits. (SFCC)

PHOTO 237 - Introduction to Documentary DV Production (5 cr)
Students examine a variety of creative approaches to filmmaking while using current digital video technology to produce their own short films. Students explore the history of "non-fiction" filmmaking and identify the major characteristics of the documentary genre. Special emphasis is placed on identifying relevant applications of digital video technology within the photographic industry such as: Wedding and event videography, corporate communications and short documentaries. (SFCC)

PHOTO 240 - Large Format Photography (5 cr)
Students explore the photographic techniques and the mechanics of the black and white large format photography. Focus is on building a technical knowledge while developing skills in large format camera use. Topics covered include a historical overview of the view camera, view camera design, optical principals, camera movements and operations, medium format photography, and black and white film exposure and development techniques. Assignment work stresses practical applications in still- life, architecture, portraiture, and landscape and macro photography. Prerequisite: PHOTO 101 or permission of instructor. (SFCC)

PHOTO 247 - HDSLR Filmmaking (5 cr)
Students plan and create cinematic digital video productions using contemporary digital SLR camera technology and associated audio and lighting equipment. Students are introduced to professional production management practices related to filmmaking. Prerequisite: PHOTO 237 or permission of instructor (SFCC)

PHOTO 266 - Cooperative Education Seminar (1-2 cr)
For course description, see Cooperative Education. (SFCC)

PHOTO 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SFCC)

PHYSICAL EDUCATION

PE 100 - Fitness for Life (1 cr)
This course is designed to acquaint students with proper methods and techniques for establishing an individualized personal wellness and fitness program. It is conducted in the campus Fitness Center and includes personalized inventory and appraisal of current fitness level and explores options available to improve cardiovascular endurance, weight control, strength and flexibility. (SCC, SFCC)

PE 101 - Beginning Volleyball (1 cr)
Fundamental skills, rules, etiquette and strategy; development of skills through drills and competitive play. (SCC, SFCC)

PE 105 - Beginning Badminton (1 cr)
Fundamental skills, rules of the game, court etiquette, techniques, and strategy of singles and doubles play. (SCC, SFCC)

PE 106 - Yoga Fitness (1 cr)
This course promotes individual fitness and total mind-body health. Strength and stretching movements, flexibility and breathing exercises, and relaxation techniques are presented. (SCC, SFCC)

PE 107 - Jogging (1 cr)
Course designed to improve the student's level of physical fitness and wellness, teach proper methods of running/jogging, encourage proper body weight and body fat levels, and establish a permanent habit of exercise. (SCC, SFCC)

PE 108 - Beginning Tennis (1 cr)
Basic skills and techniques needed for singles and doubles play. Court etiquette, rules, strategy, scoring and terminology. (SCC, SFCC)

PE 114 - Beginning Karate (1 cr)
Fundamental skills, philosophy, rules and strategy of karate. Emphasizes a combination of skill, power and discipline. (SCC, SFCC)

PE 115 - Beginning Soccer (1 cr)
Basic skills, strategy and team play involved in the game of soccer. (SCC, SFCC)

PE 116 - Beginning Basketball (1 cr)
Fundamentals of ball handling, shooting, passing, and techniques of offensive and defensive play. Competitive play situations provided. (SCC, SFCC)

PE 117 - Kickboxing (1 cr)
Students learn the basic skills, techniques and safety procedures of kickboxing. Sport specific activities to improve individual balance, strength, endurance and cardiovascular conditioning are emphasized. (SCC, SFCC)

PE 120 - Beginning Softball (1 cr)
Fundamentals of team play, rules and game strategies. Emphasis placed on participation by all. (SCC, SFCC)

PE 122 - Beginning Skiing (1 cr)
Instruction at all levels of competency in the skills and techniques of skiing. Classes are held at Mt. Spokane. (SCC, SFCC)

PE 126 - Beginning Golf (1 cr)
Practice and development of fundamental skills, rules and etiquette of golf. (SCC, SFCC)

PE 127 - Beginning Jazz Dance (1 cr)
Course includes jazz dance oriented stretching and warm-ups. Class will learn jazz combinations, walks and steps incorporated in a variety of dance routines. (SFCC)

PE 130 - Pickleball (1 cr)
Fundamental skills, rules of the game, court etiquette, techniques, and strategy of singles and doubles play. (SCC)

PE 135 - Gymnastics (1 cr)
Gymnastics basics covering beginning, intermediate and advanced levels in the areas of tumbling, flexibility, vaulting, bars and balance beam. (SCC)

PE 138 - Fundamentals of Resistance Training (2 cr)
Fundamentals of Resistance Training offers instruction and practice in proper techniques of the development of muscular strength, endurance, and flexibility. Emphasis is placed on reducing fat, increasing strength and performance. Also, special attention is given to exercise program design, safety procedures, and goal setting. (SFCC, SCC)

PE 139 - Weight Training (1 cr)
This course covers modern weight training techniques, including strength and endurance training, and flexibility and coordination. Students learn proper techniques of both Olympic freebar weights and machine circuit training programs. (SCC, SFCC)

PE 140 - Beginning Ski Conditioning (1 cr)
Ski conditioning class is an intense concentration of exercises that complement the basic movements of skiing. The emphasis is on improving the general level of body conditioning, flexibility and improvement of cardiovascular functions as they relate to skiing. (SFCC)

PE 141 - Theory and Conditioning of Soccer (2 cr)
This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

PE 143 - Theory and Conditioning of Basketball (2 cr)
This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular function. The course is designed for students interested in individual and team competition. (SCC, SFCC)

PE 144 - Theory and Conditioning of Softball (2 cr)
This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

PE 145 - Theory and Conditioning of Baseball (2 cr)
This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

PE 146 - Theory and Conditioning of Cross Country (2 cr)
This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

PE 147 - Theory and Conditioning of Track (2 cr)
This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

PE 149 - Theory and Conditioning of Golf (2 cr)
This is a complete offering of skill development, playing strategies, course management, and concepts and rules mastery as they relate to the game of golf. The course is designed for students interested in individual and team competition. (SCC, SFCC)

PE 151 - Theory and Conditioning of Tennis (2 cr)
This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

PE 154 - Theory and Conditioning of Volleyball (2 cr)
This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

PE 156 - Techniques of Soccer (3 cr)
This course is a study of the rules, team organization, techniques and strategy of soccer. (SCC, SFCC)

PE 157 - Track Techniques (3 cr)
This course is a study of the rules, techniques, and strategy of track and field events. (SCC, SFCC)

PE 158 - Techniques of Tennis (3 cr)
This course presents intense techniques of tennis designed for students interested in competitive play in either singles or doubles. Advanced drills, footwork, agility and conditioning for competitive play are emphasized. (SCC, SFCC)

PE 159 - Techniques of Golf (3 cr)
This course is a study of the rules, techniques, fundamentals and skills of golf. It is designed for students interested in individual and team competition. (SCC, SFCC)

PE 160 - Techniques of Volleyball (3 cr)
This course is a study of the rules, team organization, techniques and strategies of volleyball. (SCC, SFCC)

PE 164 - Techniques of Basketball (3 cr)
This course presents an intense study of proper basketball techniques, fundamentals and skills. Individual and team offensive and defensive strategies and philosophies also are presented. The course is designed for students interested in individual and team competition. (SCC, SFCC)

PE 165 - Techniques of Baseball (3 cr)
This course is designed to develop knowledge and physical skills of baseball in a laboratory setting. Students learn rules and strategies of baseball, and basic fundamentals of hitting, throwing and catching as applied to the individual's position or positions. (SCC, SFCC)

PE 169 - Techniques of Softball (3 cr)
This course is designed for students interested in competitive fast pitch softball. Advanced drills, skills, techniques and conditioning for competitive play are emphasized. (SCC, SFCC)

PE 170 - Introduction to Physical Education and Recreation (3 cr)
This course is designed to develop introductory skills and increase knowledge in the occupational areas of health, physical education, recreation and coaching. Students learn historical factors that have shaped the profession, current trends, philosophies and objectives of physical education. (SCC, SFCC)

PE 177 - Beginning Body Conditioning (1 cr)
A variety of activities that lead to overall improvement of body conditioning, weight training, walking, jogging, calisthenics and organized physical activities will be employed to increase efficiency of cardiovascular functions. (SCC, SFCC)

PE 182 - Beginning Ballet (1 cr)
Introduction and explanation of ballet from fundamental to more complex techniques. (SFCC)

PE 185 - Beginning ZUMBA(R) Aerobic Fitness (1 cr)
A program of stretching and aerobic conditioning set to music. Course designed to improve and appraise flexibility, strength and cardiovascular fitness through a variety of aerobic techniques. (SCC, SFCC)

PE 186 - Fast Fitness, Beginning (1 cr)
Comprehensive physical fitness course designed to develop strength, flexibility, muscular endurance and cardiovascular efficiency in an effective and timely manner through the use of circuits. (SCC, SFCC)

PE 187 - Cross Training (2 cr)
The term cross training is the involvement of a variety of different activities into a single coordinated program. The objective is to achieve high levels of strength, endurance and flexibility while at the same time preventing injuries. It is necessary to include different types of activities into a weekly routine. The cross training class focuses on the following: Development of a comprehensive, personalized fitness program utilizing the state-of-the-art equipment in the Fitness Center. The course will require a basic knowledge of the fast fitness circuit concept and an understanding of the cardiovascular equipment. Individual programs will incorporate the use of all exercise equipment in the Fitness Center. In addition, individuals need to include other activities such as running, rowing, cycling, stair climbing, cross-country skiing, free weight training, in-line skating and walking. Monthly goals are predetermined and a daily training record will be kept to evaluate the individual's progress toward his/her goals. (SCC, SFCC)

PE 188 - Basic Fitness I (2 cr)
To promote total body wellness, students will learn to incorporate exercise and nutrition as part of a healthy lifestyle. Group exercise activity is combined with lecture/labs to give students an understanding of physical fitness theory and technique. Students in the on-ground version of this course will participate in instructor lead group exercise activities such as Yoga, aerobic training, muscle conditioning, ZUMBA, Pilates, and Kickboxing. In the online version, student may participate in gym workouts, group fitness classes, team athletics, dance, water sports, cycling etc. Topics of lecture/labs may include goal setting, fitness assessment, components of fitness, principles of fitness, major muscles of the human body, target heart rate calculation, and nutritional assessment. Gain knowledge that can be used for a lifetime, while having fun participating in exercise activities to help you reach your fitness goal. (SCC, SFCC)

PE 190 - Introduction to Rock Climbing (1 cr)
Intro to Rock Climbing offers instruction and practice in basic rock climbing, belaying, and safety. The course will cover the skills necessary to climb and belay using a top-rope system in both an indoor facility and an outdoor setting. Emphasis is placed on safety practices, basic climbing knots, and belay technique. Other topics covered include climbing movement, equipment, and terminology. (SFCC)

PE 200 - Fitness for Life (1 cr)
This course is designed to acquaint students with proper methods and techniques for establishing an individualized personal wellness and fitness program. It is conducted in the campus Fitness Center and includes personalized inventory and appraisal of current fitness level and explores options available to improve cardiovascular endurance, weight control, strength and flexibility. (SCC, SFCC)

PE 201 - Advanced Volleyball (1 cr)
Fundamental skills, rules, etiquette and strategy; development of skills through drills and competitive play. (SCC, SFCC)

PE 205 - Advanced Badminton (1 cr)
Fundamental skills, rules of the game, court etiquette, techniques, and strategy of singles and doubles play. (SCC, SFCC)

PE 206 - Yoga Fitness (1 cr)
This course promotes individual fitness and total mind-body health. Strength and stretching movements, flexibility and breathing exercises, and relaxation techniques are presented. (SCC, SFCC)

PE 207 - Jogging (1 cr)
Course designed to improve the student's level of physical fitness and wellness, teach proper methods of running/jogging, encourage proper body weight and body fat levels, and establish a permanent habit of exercise. (SCC, SFCC)

PE 208 - Advanced Tennis (1 cr)
Basic skills and techniques needed for singles and doubles play. Court etiquette, rules, strategy, scoring and terminology. (SCC, SFCC)

PE 214 - Advanced Karate (1 cr)
Fundamental skills, philosophy, rules and strategy of karate. Emphasizes a combination of skill, power and discipline. (SCC, SFCC)

PE 215 - Advanced Soccer (1 cr)
Basic skills, strategy and team play involved in the game of soccer. (SCC, SFCC)

PE 216 - Advanced Basketball (1 cr)
Fundamentals of ball handling, shooting, passing, and techniques of offensive and defensive play. Competitive play situations provided. (SCC, SFCC)

PE 217 - Kickboxing (1 cr)
Students learn the basic skills, techniques and safety procedures of kickboxing. Sport specific activities to improve individual balance, strength, endurance and cardiovascular conditioning are emphasized. (SCC, SFCC)

PE 220 - Advanced Softball (1 cr)
Fundamentals of team play, rules and game strategies. Emphasis placed on participation by all. (SCC, SFCC)

PE 222 - Advanced Skiing (1 cr)
Instruction at all levels of competency in the skills and techniques of skiing. Classes are held at Mt. Spokane. (SCC, SFCC)

PE 226 - Advanced Golf (1 cr)
Practice and development of fundamental skills, rules and etiquette of golf. (SCC, SFCC)

PE 227 - Advanced Jazz Dance (1 cr)
Course includes jazz dance oriented stretching and warm-ups. Class will learn jazz combinations, walks and steps incorporated in a variety of dance routines. (SFCC)

PE 230 - Pickleball (1 cr)
Fundamental skills, rules of the game, court etiquette, techniques, and strategy of singles and doubles play. (SCC)

PE 235 - Gymnastics (1 cr)
Gymnastics basics covering beginning, intermediate and advanced levels in the areas of tumbling, flexibility, vaulting, bars and balance beam. (SCC)

PE 239 - Weight Training (1 cr)
This course covers modern weight training techniques, including strength and endurance training, and flexibility and coordination. Students learn proper techniques of both Olympic freebar weights and machine circuit training programs. (SCC, SFCC)

PE 240 - Advanced Ski Conditioning (1 cr)
Ski conditioning class is an intense concentration of exercises that complement the basic movements of skiing. The emphasis is on improving the general level of body conditioning, flexibility and improvement of cardiovascular functions as they relate to skiing. (SFCC)

PE 241 - Theory and Conditioning of Soccer (2 cr)
This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

PE 243 - Theory and Conditioning of Basketball (2 cr)
This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular function. The course is designed for students interested in individual and team competition. (SCC, SFCC)

PE 244 - Theory and Conditioning of Softball (2 cr)
This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

PE 245 - Theory and Conditioning of Baseball (2 cr)
This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

PE 246 - Theory and Conditioning of Cross Country (2 cr)
This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

PE 247 - Theory and Conditioning of Track (2 cr)
This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

PE 249 - Theory and Conditioning of Golf (2 cr)
This is a complete offering of skill development, playing strategies, course management, and concepts and rules mastery as they relate to the game of golf. The course is designed for students interested in individual and team competition. (SCC, SFCC)

PE 251 - Theory and Conditioning of Tennis (2 cr)
This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

PE 254 - Theory and Conditioning of Volleyball (2 cr)
This is an intense program of physical activity to enhance flexibility, strength, endurance and cardiovascular functions. The course is designed for students interested in individual and team competition. (SCC, SFCC)

PE 256 - Techniques of Soccer (3 cr)
This course is a study of the rules, team organization, techniques and strategy of soccer. (SCC, SFCC)

PE 257 - Track Techniques (3 cr)
This course is a study of the rules, techniques, and strategy of track and field events. (SCC, SFCC)

PE 258 - Techniques of Tennis (3 cr)
This course presents intense techniques of tennis designed for students interested in competitive play in either singles or doubles. Advanced drills, footwork, agility and conditioning for competitive play are emphasized. (SCC, SFCC)

PE 259 - Techniques of Golf (3 cr)
This course is a study of the rules, techniques, fundamentals and skills of golf. It is designed for students interested in individual and team competition. (SCC, SFCC)

PE 260 - Techniques of Volleyball (3 cr)
This course is a study of the rules, team organization, techniques and strategies of volleyball. (SCC, SFCC)

PE 264 - Techniques of Basketball (3 cr)
This course presents an intense study of proper basketball techniques, fundamentals and skills. Individual and team offensive and defensive strategies and philosophies also are presented. The course is designed for students interested in individual and team competition. (SCC, SFCC)

PE 265 - Techniques of Baseball (3 cr)
This course is designed to develop knowledge and physical skills of baseball in a laboratory setting. Students learn rules and strategies of baseball, and basic fundamentals of hitting, throwing and catching as applied to the individual's position or positions. (SCC, SFCC)

PE 266 - Cooperative Education Seminar (1-2 cr)
For course description, see Cooperative Education. (SCC, SFCC)

PE 267 - Cooperative Education Work Experience (1-3 cr)
For course description, see Cooperative Education. (SCC, SFCC)

PE 269 - Techniques of Softball (3 cr)
This course is designed for students interested in competitive fast pitch softball. Advanced drills, skills, techniques and conditioning for competitive play are emphasized. (SCC, SFCC)

PE 272 - Psychology of Athletic Achievement (3 cr)
This course provides the student with the principles and practices of personal achievement as applied to athletics and academic endeavors. Techniques of developing a positive self-image through understanding and application of basic philosophies relating to goal setting, motivation and personal discipline are introduced. (SCC, SFCC)

PE 275 - Diversity in Sports (5 cr)
This course will explore the progression of diversity in American sports and its impact on our modern culture. Accessibility and opportunities for those overcoming diversity issues such as ethnicity, religion, gender, and disabilities will be examined in the context of professional and amateur sports. The impact of this progression and its influence on our society both politically and morally will be studied. (SFCC, SCC)

PE 277 - Advanced Body Conditioning (1 cr)
A variety of activities that lead to overall improvement of body conditioning, weight training, walking, jogging, calisthenics and organized physical activities will be employed to increase efficiency of cardiovascular functions. (SCC, SFCC)

PE 282 - Advanced Ballet (1 cr)
Introduction and explanation of ballet from fundamental to more complex techniques. (SFCC)

PE 285 - Advanced ZUMBA(R) Aerobic Fitness (1 cr)
A program of stretching and aerobic conditioning set to music. Course designed to improve and appraise flexibility, strength and cardiovascular fitness through a variety of aerobic techniques. (SCC, SFCC)

PE 286 - Fast Fitness, Advanced (1 cr)
Comprehensive physical fitness course designed to develop strength, flexibility, muscular endurance and cardiovascular efficiency in an effective and timely manner through the use of circuits. (SCC, SFCC)

PE 287 - Cross Training (2 cr)
The term cross training is the involvement of a variety of different activities into a single coordinated program. The objective is to achieve high levels of strength, endurance and flexibility while at the same time preventing injuries. It is necessary to include different types of activities into a weekly routine. The cross training class focuses on the following: Development of a comprehensive, personalized fitness program utilizing the state-of-the-art equipment in the Fitness Center. The course will require a basic knowledge of the fast fitness circuit concept and an understanding of the cardiovascular equipment. Individual programs will incorporate the use of all exercise equipment in the Fitness Center. In addition, individuals need to include other activities such as running, rowing, cycling, stair climbing, cross-country skiing, free weight training, in-line skating and walking. Monthly goals are predetermined and a daily training record will be kept to evaluate the individual's progress toward his/her goals. (SCC, SFCC)

PE 288 - Basic Fitness II (2 cr)
To promote total body wellness, students will learn to incorporate exercise and nutrition as part of a healthy lifestyle. Group exercise activity is combined with lecture/labs to give students an understanding of physical fitness theory and technique. Students in the on-ground version of this course will participate in instructor lead group exercise activities such as Yoga, aerobic training, muscle conditioning, ZUMBA, Pilates, and Kickboxing. In the online version, student may participate in gym workouts, group fitness classes, team athletics, dance, water sports, cycling etc. Topics of lecture/labs may include goal setting, fitness assessment, components of fitness, principles of fitness, major muscles of the human body, target heart rate calculation, and nutritional assessment. Gain knowledge that can be used for a lifetime, while having fun participating in exercise activities to help you reach your fitness goal. Prerequisite: PE 188. (SCC, SFCC)

PHYSICAL THERAPIST ASSISTANT

PTA 101 - Introduction to Physical Therapy (3 cr)
This course is an introduction to the practice of physical therapy emphasizing the role of the physical therapist assistant as a member of the health care team. Investigation of the law pertaining to the practice of physical therapy and ethical conduct are covered. Issues of teamwork, interpersonal communication skills and patient motivation will be explored. Prerequisite: Acceptance into PTA program. (SFCC)

PTA 102 - Physical Therapy Terminology (1 cr)
This course is a supervised self-study of medical terminology and abbreviations used to describe the anatomy, physiology and pathology of the body systems used in relationship to the practice of physical therapy. Terms associated with diagnostics, surgery, laboratory tests, pharmacology and patient care are included. Prerequisite: Acceptance into PTA program. (SFCC)

PTA 103 - Applied Anatomy (3 cr)
Instruction in human anatomy with an emphasis on the musculoskeletal system. Musculoskeletal structures are explained in their relationship to function. Basic principles of kinesiology (the study of the body in motion) will be presented. The principles of joint range of motion and manual muscle testing will be taught. Respiration and its neuromuscular process will be provided. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 104, 105, 173. (SFCC)

PTA 104 - Survey of Pathophysiology (5 cr)
This course includes a basic overview of disease processes, including general pathological responses and the physiology of healing and repair. A description of specific diseases and conditions, and the medical and surgical forms of treatment as they relate to rehabilitation is covered and there is discussion of systemic origins of musculosketetal pain. Prerequisite: Grade of 2.0 or better in PTA courses or permission of instructor. (SFCC)

PTA 105 - Introduction to Neuroscience (4 cr)
An introduction to the structures and basic functions of the nervous system in relationship to physical therapy treatment of patients with neurological diagnoses is offered in this course. Prerequisite: Grade of 2.0 or better in PTA courses or permission of instructor. (SFCC)

PTA 106 - Regional Human Anatomy and Physiology (5 cr)
Human body structure and function from a regional viewpoint with emphasis on the skeletal, muscular and nervous systems; the respiratory and cardiovascular systems and introduction of digestive, renal/urinary, genital/reproductive, immunologic and endocrine systems. Prerequisite: Acceptance into the physical therapist assistant program and BIOL& 241. (SFCC)

PTA 107 - Physical Therapy Documentation (1 cr)
Instructional focus on physical therapy documentation that follows guidelines and specific documentation formats required by state practice acts, practice settings and other regulatory agencies. Billing and payment information will also be discussed. Prerequisite: 2.0 or better in prior PTA courses. (SFCC)

PTA 110 - PTA Procedures I: Basic PT Procedures Seminar (3 cr)
Basic introduction to patient care skills including body mechanics, preparation for different patient diagnoses and treatment environments. Basic concepts and components of aseptic and infection control techniques, wound care, edema management, compression bandaging and taping will be explored. Methodology of data collection including vital signs and anthropometric measurements is presented. An introduction to modalities including superficial heat, cold, light therapy, diathermy and hydrotherapy as it pertains to patient care will be taught. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 101, 102, 106, 170. (SFCC)

PTA 111 - PTA Procedures II: PT Modalities Seminar (3 cr)
Theory and principles of deep heat modalities, electrotherapy, postural drainage, basic massage, and introduction to fundamentals of traction and other physical agents used in physical therapy. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 112, 151, 171, 172. (SFCC)

PTA 112 - PTA Procedures III: Functional Restoration Seminar (3 cr)
Instructional focus on functional restoration techniques for neurologic, orthopedic and other patients requiring physical therapy; including bed mobility, patient transfers, use of assistive devices, orthotics, and prosthetics, wheelchair positioning, and postural analysis. Issues pertaining to the principles of normal and abnormal gait, Americans with Disability Act pertaining to environmental accessibility and community service opportunities will be explored. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 111, 151, 171, 172. (SFCC)

PTA 151 - Clinical Experience I (1 cr)
Supervised clinical observation and experience based in a variety of physical therapy clinic settings affiliated with the college are provided. All Clinical Performance Instrument criteria for safety, clinical behaviors, accountability, cultural competence and communication will be performed satisfactory. Demonstrate knowledge of rationale for interventions and data collection methods identified in the plan of care from previous coursework through discussions with the clinical instructor. Grading option: Pass/fail. Prerequisite: Grade of 2.0 or better in all PTA courses. (SFCC)

PTA 170 - PTA Procedures I: Basic PT Procedures Lab (4 cr)
Experiential learning of basic patient care skills and pertinent data collection methodology pertaining to vital signs, bandaging, aseptic techniques, wound care and edema management, and athletic taping. Preparation of patient and treatment environment in a laboratory setting. Application and pertinent data collection methodology pertaining to superficial heat, cold, light therapy, diathermy and hydrotherapy will also be covered. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 101, 102, 106, 110. (SFCC)

PTA 171 - PTA Procedures II: PT Modalities Lab (4 cr)
Laboratory course focusing on the application and pertinent data collection methodology pertaining to deep heat modalities, electrotherapy and basic massage techniques. Laboratory sessions include the fundamentals of traction and other physical agents used in physical therapy with an emphasis on communication, utilization and safety in all applications. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 111, 112, 151, 172. (SFCC)

PTA 172 - PTA Procedures III: Functional Restoration Lab (4 cr)
Instruction in physical restoration techniques and pertinent data collection methodology pertaining to bed mobility, patient transfers, postural analysis, principles of normal and abnormal ambulation, balance, use of assistive devices, and selected functional rehabilitation activities. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 111, 112, 151, 171. (SFCC)

PTA 173 - Applied Anatomy Lab (3 cr)
Laboratory course focusing on human anatomy with an emphasis on the musculoskeletal system and functional movement. External palpation and identification of structures is explained and their relationship to function. Application of basic principles of kinesiology (the study of the body in motion) will be presented. Data collection and assessment pertaining to joint range of motion, manual muscle testing, and respiration will be taught. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 103, 104, 105. (SFCC)

PTA 201 - Issues in Physical Therapy and Health Care (2 cr)
Survey of medical, ethical, legal, and psychosocial issues relating to the role of the PTA in various physical therapy facilities and in the delivery of health care. Emphasis on ethics, reimbursement and documentation, patient motivation/communication, assertiveness, adjustment to disability, resume and interview skills, and preparation for continuing education and professional development. Prerequisite: Grade of 2.0 or better in PTA courses. (SFCC)

PTA 202 - Introduction to Orthopedics (3 cr)
This course is the basic introduction to biomechanics and mechanisms of orthopedic injuries and diseases. Fundamentals of orthopedic terminology are addressed, and a survey of surgical repair with emphasis on rehabilitation is included. Prerequisite: Grade of 2.0 or better in PTA courses. (SFCC)

PTA 203 - Physical Therapy Preparatory Lab (1 cr)
Instructional focus is on general pharmacological concepts for the physical therapist assistant, preparation for the physical therapist assistant (PTA) licensing exam, special tests and evidence based standardized tools for assessment of the patient in physical therapy. Prerequisite: Acceptance into the PTA program and grade of 2.0 or better in all PTA courses or permission of instructor. (SFCC)

PTA 210 - PTA Procedures IV: Therapeutic Exercise Seminar (3 cr)
Instructional focus on physical therapy concepts for therapeutic exercise techniques as they relate to treatment of the spine, extremities, cardiovascular, pulmonary, and vestibular systems. Discussion of stages of healing, post-operative indications and contraindications will be explored. Common exercise programs, protocols, equipment and exercise strategies will also be examined. Patient motivational issues and the PTA role as a member of the healthcare team will also be incorporated. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 202, 212, 251, 254, 270, 272. (SFCC)

PTA 211 - PTA Procedures V: Rehab Applications Seminar (3 cr)
Instructional focus is on the use of common data collection methods and treatments for specific neurologic disabilities including spinal cord injuries, stroke, head injuries, MS and other neurologic diseases. Additional emphasis is placed on the development of treatment programs and discussion of pertinent data collection methods for orthopedic patients including upper and lower extremity dysfunctions, injuries to the spine, and lower extremity amputations. Students develop specific home programs, instruct in family training, and select appropriate assistive devices and equipment for neurologic, geriatric and orthopedic patients. Students apply physical therapy skills for the comprehensive treatment of the geriatric patient, vestibular and burn patients, and analyze functional assessments and testing for sensory related deficits. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 201, 252, 255, 271. (SFCC)

PTA 212 - PTA Procedures VI: Pediatric Rehab Seminar (1 cr)
Instruction is provided in normal and abnormal human development, pediatric treatment philosophies and principles, pediatric assessment tools, gross motor skill development, behavior management and communication skills, and common pediatric disorders. Prerequisite: Grade of 2.0 in all PTA courses and concurrent enrollment in PTA 202, 210, 251, 254, 270, 272. (SFCC)

PTA 251 - Clinical Experience II (1 cr)
This course is a continuation of clinical experiences based in a variety of physical therapy clinic settings affiliated with the college. All Clinical Performance Instrument criteria will be performed at a "beginner to intermediate" performance or higher depending on the level of the student's didactic and laboratory competencies. Application of different interventions and data collection methods identified in the plan of care from previous coursework will be achieved through facilitation by the clinical instructor. Grading option: Pass/fail. Prerequisite: Grade of 2.0 or better in all previous PTA courses and concurrent enrollment in PTA 202, 210, 212, 254. (SFCC)

PTA 252 - Clinical Experience III (3 cr)
This is the third clinical experience course based in a variety of physical therapy clinic settings affiliated with the college. All Clinical Performance Instrument criteria will be performed at "Advanced beginner to Advanced Intermediate" performance or higher depending on the level of the student's didactic and laboratory competencies. Application of interventions and data collection methods identified in the plan of care from previous coursework will be achieved through facilitation by the clinical instructor. Grading option: Pass/fail. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 201, 211, 255. (SFCC)

PTA 253 - PTA Clinical Affiliation (12 cr)
This is a full-time internship of practical performance and appropriate application of physical therapy procedures and techniques under supervision in two selected clinic settings or a physical therapy department associated with the college. This affiliation is sufficient to insure the student has reached the minimum level of competency required for an entry-level physical therapist assistant in the application of physical therapy procedures and the understanding of clinic responsibilities and supervisory relationships prior to graduation. The Clinical Instructor is informed of the current skill level of the student. All Clinical Performance Instrument criteria will be performed at "Entry level" performance. Grading option: Pass/fail. Prerequisite: Grade of 2.0 or better in all PTA courses. (SFCC)

PTA 254 - Clinical Seminar II (1 cr)
Clinical lecture and discussion seminar will focus on cultural competence and verbal and written communication with clients and the health care team. Discussion regarding health records, International Classification of Functioning and supervisory roles will be reviewed. Prerequisite: Grade of 2.0 or better in previous PTA courses. (SFCC)

PTA 255 - Clinical Seminar III (1 cr)
Survey of issues surrounding patient care and teamwork. Topics will focus on patient interaction, adjustment to disability and grief, ethics, and physical therapist and physical therapist assistant roles and responsibilities. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 201, 211, 252. (SFCC)

PTA 270 - PTA Procedures IV: Therapeutic Exercise Lab (4 cr)
Laboratory course focus on development of therapeutic exercise programs for prevention and treatment of dysfunction of the spine, extremities, cardiovascular system, vestibular system, and somatosensory system. Implementation of treatment protocols and exercise techniques for specific diagnoses and conditions including orthopedic and neurological. Assessment techniques for posture, strength, flexibility, cardiovascular fitness will be employed. Documentation of treatment, response to treatment, assessment and planning. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 202, 210, 212, 251, 254, 272. (SFCC)

PTA 271 - PTA Procedures V: Rehab Applications Lab (4 cr)
Laboratory course focusing on common data collection methodology and the application of physical therapy treatment for specific neurologic disabilities including, spinal cord injuries, stroke, head injuries, MS and other neurologic diseases. Emphasis is on the development of treatment programs and pertinent data collection methodology pertaining to orthopedic patients including upper and lower extremity dysfunctions, injuries to the spine and lower extremity amputations. Develop specific home programs, instruct in family training and select appropriate assistive devices and equipment for neurologic, geriatric and orthopedic patients. Apply physical therapy skills for the comprehensive treatment of the geriatric patient. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 201, 211, 252, 255. (SFCC)

PTA 272 - PTA Procedures VI: Pediatric Rehab Lab (2 cr)
Laboratory sessions focus on pediatric physical therapy with an emphasis on facilitation of the developmental sequence, common treatment approaches including handling, positioning, range of motion, strength and mobility. Data collection methodology pertaining to pediatrics is also included. Prerequisite: Grade of 2.0 or better in previous PTA courses and concurrent enrollment in PTA 202, 210, 212, 251, 254, 270. (SFCC)

PHYSICS

PHYS 100 - Introductory Physics (5 cr)
This course is intended for nonscience majors to provide exposure to the culture of physics-its history, principles, laws, recent developments and societal impacts. Math is minimal, and weekly laboratory study is required.
(SCC, SFCC)

PHYS 101 - General Physics (5 cr)
This course is for science and other majors not requiring calculus-level physics. There is an emphasis on mechanics, Newton's Laws of Motion, rotation motion and conservation principles. This course also requires a weekly laboratory. Prerequisite: 2.0 or better in one of the following MATH courses: MATH& 141, 142, 151, 152, 153, 254, MATH 220, 225, 274. (SCC, SFCC)

PHYS 102 - General Physics (5 cr)
For science and other majors not requiring calculus-level physics. Emphasis on wave motion optics, thermodynamics and fluids. Requires weekly laboratory. Prerequisite: PHYS 101. (SCC, SFCC)

PHYS 103 - General Physics (5 cr)
For science and other majors not requiring calculus-level physics. Emphasis on electricity, magnetism, relativity and quantum physics. Requires weekly laboratory. Prerequisite: PHYS 101. (SCC, SFCC)

PHYS 120 - Fundamentals of Medical Physics (5 cr)
This course emphasizes applications of physics in the health science areas for cardiopulmonary and echocardiographic instrumentation. Topics covered include mechanics, fluid statics (Archimedes' and Pascal's Principles), molecular phenomena related to biological processes, elasticity and wave motion, physics of sonographic imaging, and instruments. Prerequisite: MATH 99 or equivalent; PHYS 100 or high school physics. Enrollment is limited to invasive or noninvasive cardiovascular technology students. (SCC)

PHYS 201 - Engineering Physics I (5 cr)
Calculus-level classical physics with emphasis on mechanics. This course is for engineering and physical science majors transferring to four-year institutions. Topics include kinematics, dynamics, gravity, momentum and energy. A weekly laboratory is required. Prerequisite: Concurrent enrollment in MATH& 151 or higher. (SFCC)

PHYS 202 - Engineering Physics II (5 cr)
Calculus-level classical electricity and magnetism for physical science and engineering majors. Topics include AC and DC circuits, Gauss' Law, Kirchhoff's Laws and Maxwell's equations. A weekly laboratory is required. Prerequisite: A grade of 2.0 or higher in PHYS 201 and concurrent enrollment in MATH& 152 or higher. (SFCC)

PHYS 203 - Engineering Physics III (5 cr)
Calculus-level classical thermodynamics and wave mechanics for physical science and engineering majors. Topics include laws of thermodynamics, thermal properties of matter, mechanical waves, sound and light. A weekly laboratory is required. Prerequisite: A grade of 2.0 or higher in PHYS 201 and concurrent enrollment in MATH& 152 or higher. (SFCC)

POLITICAL SCIENCE

POLS& 101 - Intro to Political Science (5 cr)
Development of Western political theory and ideology, comparative analysis of contemporary ideologies, examination of political processes with emphasis on the individual's role. (SCC, SFCC)

POLS 102 - Comparative Government (5 cr)
This is an introductory, interdisciplinary course designed to introduce students to the systematic study of comparative political systems. In an increasingly interdependent world, this course provides students with the conceptual and analytical tools to study political behavior, institutions and processes of various countries across the globe. (SCC)

POLS 125 - Introduction to Global Issues (5 cr)
This is an introductory, multidisciplinary course designed to introduce the student to pertinent global issues. A goal of this course is to foster and promote understanding, attitudes and skills that enables citizenry in local communities to function humanely in an age of global interdependence. (SCC, SFCC)

POLS& 202 - American Government (5 cr)
The basic course develops an understanding of American politics and political institutions, the philosophies and concepts of American constitutionalism, and the structure and operation of the American form of government. Emphasis is placed on the theories and practice of democracy, pluralism and elitism. (SCC, SFCC)

POLS& 203 - International Relations (5 cr)
A broad survey of the relations of nations: Political, military, economic and cultural, and of the forces for order in the international world. (SCC, SFCC)

POLS 204 - Political Philosophy (5 cr)
This is an introduction to the basic theories behind political philosophy. Areas of emphasis includes government, state of nature, authority and legitimacy. (SCC)

POLS 205 - Islam and the West: Theater of Cooperation and Conflict (5 cr)
This introductory, multidisciplinary course introduces students to the systematic study of Islam and the West in world politics. Conceptional and analytical tools to study Global Islam are provided. (SCC)

PRECISION METAL FABRICATION

PMF 101 - Introduction to Precision Metal Fabrication (5 cr)
This course provides an overview of the topics relating to precision metal fabrication, its major tools, and skill sets. Students will learn what is involved in the production of precision sheet metal components for industries in accordance with written instructions, blueprints, and computer-aided design (CAD) drawings. (SCC)

PMF 102 - Precision Metal Fabrication Technology I (5 cr)
Apprentices will learn to set up, manage, and safely operate a CNC Turret Press in order effectively punch sheet metal. (SCC)

PMF 103 - Precision Metal Fabrication Technology II (5 cr)
Students will learn how to operate the Press Brake effectively. Students will learn about press brake safety, and how to effectively run a press brake with a focus on safety. This will include setting up the press brake, “dialing in” the press brake, and managing the tonnage of the press brake so as not to damage the tooling. (SCC)

PMF 104 - Materials, Processes, References (5 cr)
Students will examine the materials and processes used in precision metal fabrication through various sources and hands-on activities, including basic metallurgy and welding processes. This course teaches the analysis of essential metals such as steel alloy, stainless steels, aluminum, and sheet metal. (SCC)

PMF 201 - Shop Math for Precision Metal Fabricators (5 cr)
Application of mathematics to metal fabrication environment. Perform standard shop computations and conversions between measurement systems. Relevant mathematical concepts are taken from Algebra, Geometry, and Trigonometry to help students understand formulas and common technical application problems. Basic math skills will be reviewed including decimals, fractions and conversions between them. This course also includes the solving of algebraic equations and application of formulas seen in industry. Students will learn properties of angles and common geometric shapes and relevant trigonometric functions, and they will be introduced to statistics. (SCC)

PMF 202 - Engineering Drawings (5 cr)
In this course, apprentices will learn to read and interpret engineering drawings for fabrication, assembly, welding, and other manufacturing processes. (SCC)

PMF 203 - Inspection (5 cr)
Apprentices will learn to utilize inspection tools and techniques to verify the quality of metal fabrication processes and products. Through lecture, discussion, and hands-on activities, the apprentices will gain experience evaluating sheet metal product dimensions, surface texture, coatings, material hardness, welds, threads and fasteners, assemblies, and manufacturing processes for quality. The apprentices will learn about calibration, layout, and measuring using a wide variety of precision tools and gages, such as micrometers, protractors, squares, calipers, and height gauges. This course also explores nondestructive testing technology, including dye penetrant testing, profilometers, and coordinate measuring machines. In addition, the apprentices will perform and document inspections using industry practices, such as first article inspection and statistical process control. (SCC)

PMF 204 - Computer Aided Design and Manufacturing (5 cr)
This course will provide apprentices with hands-on training in computer-aided design and manufacturing techniques and technologies. (SCC)

PSYCHOLOGY

PSYC& 100 - General Psychology (5 cr)
A general survey of the following areas of psychology: Physiology, sensation/perception, cognition/memory, motivation, learning, development, social, intelligence, personality, mental health and scientific method. (SCC, SFCC)

PSYC 106 - NURS 106/Psychosocial Issues in Healthcare I (2 cr)
This course examines the determinants of health and illness to include social, psychosocial, environmental, spiritual and cultural dimensions across the lifespan and within the context of health care. Prerequisite: Acceptance into the nursing program. (SCC)

PSYC 113 - NURS 113/Psychosocial Issues in Healthcare II (3 cr)
This course applies the determinants of health and illness to include social, psychosocial, environmental, spiritual and cultural dimensions across the lifespan and within the context of healthcare. Prerequisite: Acceptance into the nursing program. (SCC)

PSYC& 180 - Human Sexuality (5 cr)
Explores the physiological, sociocultural and psychological aspects of sexuality. Covers the major theoretical constructs and empirical data regarding sexuality. May cover research techniques, sexual anatomy and physiology, reproduction, gender roles and development, sexual response, sexual behavior, orientation, relationships, love, sexual communication, sexual dysfunctions, sexually transmitted infections and treatment, sexual abuse and assault. (SFCC, SCC)

PSYC& 200 - Lifespan Psychology (5 cr)
A survey of human development from conception through late adulthood. Physical, emotional, cognitive and psychosocial development will be explored. Prerequisite: Must have passed PSYC& 100 with a 2.0 or better or permission of instructor. (SCC, SFCC)

PSYC 204 - Research Methods in Social Science (5 cr)
The study of the basic data, theory, methodology and attitudes of the social scientist independent of any special area. Prerequisite: PSYC& 100 or SOC& 101. (SCC, SFCC)

PSYC 209 - The Psychology of Personal and Interpersonal Peace (5 cr)
Psychological approaches from divergent cultural perspectives (American and Buddhist) are contrasted and compared to explore the role of diversity in human conflict and peace. Objective methods of inquiry are combined with inner-subjective (contemplative) inquiry methods to give a better understanding of the experience of diversity, necessary for personal and interpersonal peace. (SFCC)

PSYC 210 - Conception through Adolescent Developmental Psychology (5 cr)
A survey of human development focusing on the physical, mental and emotional/social growth processes from conception through adolescence. Other topics include the history and principles of developmental psychology, childhood education and parenting. Prerequisite: Must have passed PSYC& 100 with a 2.0 or better or permission of instructor. (SCC, SFCC)

PSYC& 220 - Abnormal Psychology (5 cr)
An introduction to the diagnosis, classification, research and theoretical concepts relating to abnormal and deviant behavior. Prerequisite: PSYC& 100 with a 2.0 or better or permission of instructor. (SCC, SFCC)

PSYC 250 - Psychology of Adjustment (5 cr)
Human behavioral, mental and emotional experience are described and analyzed in the context of mental health and psychological growth, with emphasis on issues and problems of personal development and interpersonal relationships. Prerequisite: Must have passed PSYC& 100 with a 2.0 or better or permission of instructor. (SCC)

PSYC 333 - Motivation (5 cr)
Motivational Psychology is conceptualized as the application of valid and reliable Psychological principles related to Leadership and Motivation in the workplace. The purpose of this class is to maximize both employee well-being and organizational effectiveness by focusing on social, individual, and situational factors related to Leadership and Motivation in the workplace. General topics include: theories about motivation, workplace behaviors (ex: group dynamics), personality (attitudes and emotions relevant to work), decision making processes, persuasion (the differences between power and influence), managing stress effectively, and promoting fairness and diversity within organizations. Because of the research-based approach of Motivational Psychology, this class will include information about how research is designed, conducted, and interpreted. Prerequisite: Applied BAS degree students only. (SFCC)

RADIOLOGY TECHNOLOGY

RAD 111 - Radiographic Positioning I (5 cr)
This course reviews specific anatomy as it appears on x-ray images such as chest and abdomen, upper and lower limbs, shoulder and pelvic girdles, and vertebral column systems. Students learn positional techniques used to take appropriate radiographs of each body part based on the physician's request. Correct alignment of radiographic equipment is emphasized. Exposure factors, patient apprehension, safety and comfort are addressed. (SCC)

RAD 113 - Patient Care and Ethics I (2 cr)
Students learn the necessary skills for meeting the physical and emotional needs of the patient. Patient preparation required to perform a radiographic examination is emphasized. (SCC)

RAD 114 - Radiographic Image Evaluation I (2 cr)
This course introduces essential technical factors used to evaluate radiographic quality including collimation, shielding, positioning, anatomical anomalies, density, contrast and film artifacts in the developed radiograph. Types of images being evaluated build as students' knowledge of positioning grows. (SCC)

RAD 115 - Radiographic Principles I (3 cr)
This course introduces various forms of imaging. Students learn the basic principles of radiographic exposure, formulation of techniques and purpose, and the use of accessories such as grids, screens, collimators, filters and the x-ray tube. (SCC)

RAD 116 - Clinical Education I (8 cr)
Students learn radiographic positioning, darkroom and office procedures, patient management and critical analysis of radiographs in a clinical setting. Students develop psychomotor skills, cognitive domain and affective behavior in the science of radiographic technology. (SCC)

RAD 121 - Radiographic Positioning II (3 cr)
This course reviews the anatomy of each body part and system such as GI, Urinary, respiratory, bony thorax, and reproductive. Students learn positional techniques used to take appropriate radiographs of each body part or system based on the physician's request. Correct alignment of the image receptor and x-ray tube is emphasized. Exposure factors, patient apprehension, safety and comfort are covered. Prerequisite: RAD 111. (SCC)

RAD 123 - Patient Care and Ethics II (2 cr)
This course continues with the concepts introduced in RAD 113. Students learn the necessary skills for meeting the physical and emotional needs of the patient. Patient preparation required to perform a radiographic examination is emphasized. Potential situations that may lead to litigation are covered. Students also learn to protect themselves and the patient. Prerequisite: RAD 113. (SCC)

RAD 124 - Radiographic Image Evaluation II (2 cr)
Students build on the skills introduced in RAD 114 and develop radiographic assessment skills based on technical factors such as collimation, shielding, positioning, anatomical anomalies, density, contrast and image artifacts. Prerequisite: RAD 114. (SCC)

RAD 125 - Radiographic Principles II (3 cr)
This course continues with the concepts introduced in RAD 115. Students learn about radiation protection and use of protective devices. Film and film holders are emphasized. Students learn about radiation processing chemicals, darkroom design and care are emphasized. Prerequisite: RAD 115. (SCC)

RAD 126 - Clinical Education II (9 cr)
Students learn radiographic positioning, darkroom and office procedures, patient management and critical analysis of radiographs in a clinical setting. Students continue to develop psychomotor skills, cognitive domain and affective behavior in the science of radiographic technology. Prerequisite: RAD 116. (SCC)

RAD 127 - Mobile/Surgical Procedures (1 cr)
This course reviews common mobile/surgical procedures using positional techniques to take appropriate radiographs of each body part based on the physician's request. Students review correct alignment of radiographic equipment, exposure factors, patient apprehension, safety and comfort. (SCC)

RAD 131 - Radiographic Positioning III (2 cr)
Students review the anatomy of the skull and facial bones and positional techniques utilized to take appropriate radiographs based on the physician's request. Correct alignment of image, anatomy and x-ray tube are emphasized. Students prepare for comprehensive tests. Prerequisite: RAD 121. (SCC)

RAD 132 - Radiation Physics (2 cr)
This course reviews principles and concepts of scientific measurement, molecular theory, matter and energy, and electricity, magnetism and circuitry. Particular emphasis is placed on imaging modalities, x-ray circuitry, and the principles and production of x-rays. (SCC)

RAD 134 - Radiographic Image Evaluation III (2 cr)
Students continue to develop radiographic assessment skills based on technical factors such as collimation, shielding, positioning, anatomical anomalies, density, contrast and image artfacts. Prerequisite: RAD 124. (SCC)

RAD 136 - Clinical Education III (9 cr)
This course continues with the development of clinical skills introduced in RAD 126. Prerequisite: RAD 126. (SCC)

RAD 141 - Radiographic Positioning IV (2 cr)
This course is a review of specific anatomy as it appears on x-ray images such as nervous, biliary arthrography and tomography systems. Students learn positional techniques used to take appropriate radiographs of each body part based on the physician's request. Correct alignment of radiographic equipment is emphasized. Exposure factors, patient apprehension, safety and comfort are addressed. Prerequisite: RAD 131. (SCC)

RAD 144 - Radiographic Image Evaluation IV (1 cr)
Students continue to develop radiographic assessment skills based on technical factors such as collimation, shielding, positioning, anatomical anomalies, density, contrast and image artifacts. Prerequisite: RAD 134. (SCC)

RAD 145 - Radiographic Principles III (2 cr)
This course continues with the concepts introduced in RAD 125. Students learn about computerized and digital imaging, while radiation protection is emphasized. Prerequisite: RAD 125. (SCC)

RAD 146 - Clinical Education IV (7 cr)
This course continues with the development of clinical skills introduced in RAD 136. Prerequisite: RAD 136. (SCC)

RAD 156 - Clinical Education X (1-7 cr)
Students learn radiographic clinical cat scan procedures. Prerequisite: The student must be enrolled in Yakima Valley Community College's online CT didactic courses. Students must be a licensed technologist within the state of Washington and the ARRT. (SCC)

RAD 157 - Clinical Education XI (1-7 cr)
Students learn radiographic clinical cat scan procedures. Prerequisite: The student must be enrolled in Yakima Valley Community College's online CT didactic courses. Students must be a licensed technologist within the state of Washington and the ARRT. (SCC)

RAD 211 - Radiographic Positioning V (1 cr)
This course is a review of specific anatomy as it appears on x-ray images such as chest and abdomen, upper and lower limbs, shoulder and pelvic girdles, bony thorax, vertebral column and gastrointestinal systems. Students learn positional techniques used to take appropriate radiographs of each body part based on the physician's request. Correct alignment of radiographic equipment is emphasized. Exposure factors, patient apprehension, safety and comfort are addressed. Prerequisite: RAD 141. (SCC)

RAD 212 - Quality Management (2 cr)
This course introduces quality assurance programs and techniques used in film quality evaluation, processing and x-ray instrumentation. Students study the theory and practical application of quality assurance. (SCC)

RAD 213 - Various Modalities (2 cr)
This course introduces the elements of ultrasound technology principles, nuclear medicine, mammography, radiation therapy, magnetic resonance imaging (MRI) and other special procedures. Principles of interventional and angiographic procedures, angiographic equipment and visualized anatomy are addressed. History of development, application and image presentation also are presented. The scope of medical imaging techniques and their correlation is emphasized. (SCC)

RAD 214 - Radiographic Image Evaluation V (2 cr)
This course introduces essential technical factors used to evaluate radiographic quality including collimation, shielding, positioning, anatomical anomalies and density, contrast, and film artifacts in the developed radiograph. Types of images being evaluated build as the students' knowledge of positioning grows. Prerequisite: RAD 134. (SCC)

RAD 215 - Radiation Biology and Protection (1 cr)
This course introduces the effects of ionizing radiation on biologic tissue. An overview of pertinent pathological diseases is presented, and the concepts of radiation protection is discussed and emphasized. (SCC)

RAD 216 - Clinical Education V (9 cr)
This course continues with the development of clinical skills introduced in RAD 146. Prerequisite: RAD 146. (SCC)

RAD 223 - Radiation Pathology (2 cr)
A radiologist discusses disease processes, anomalies and technical factors related to properly completed radiographs. (SCC)

RAD 224 - Radiographic Image Evaluation VI (2 cr)
This course introduces essential technical factors used to evaluate radiographic quality including collimation, shielding, positioning, anatomical anomalies and density, contrast, and film artifacts in the developed radiograph. Types of images being evaluated build as the students' knowledge of positioning grows. Prerequisite: RAD 214. (SCC)

RAD 225 - Skull and GI Review (1 cr)
This course reviews the positional techniques utilized when taking radiographs of the skull and GI system based on the physician's request. (SCC)

RAD 226 - Clinical Education VI (9 cr)
This course continues with the development of clinical skills introduced in RAD 216. Prerequisite: RAD 216. (SCC)

RAD 235 - Pharmacology/Venipuncture (2 cr)
Students learn safe administration of pharmaceuticals including clinical experience in needle placement. Needle insertion and contrast media injection, and principles of pharmacological agents used in a radiology department are emphasized. (SCC)

RAD 236 - Clinical Education VII (9 cr)
This course continues with the development of clinical skills introduced in RAD 226. Prerequisite: RAD 226. (SCC)

RAD 237 - Review and Registration Preparation (3 cr)
Students review all the material covered in previous radiology technology courses in preparation of the ARRT examination which may be taken on or after the day of graduation from the program. (SCC)

RAD 238 - Cat Scan (1 cr)
Course content is designed to provide entry-level radiography students with principles related to computed tomography (CT) imaging. This course includes instruction on the history, various components, operations and processes applied in CT. The students will also be instructed on the appropriate radiation protection that should be utilized. (SCC)

RAD 239 - Advanced Image Evaluation (1 cr)
This course will review cross-sectional anatomy for various imaging modalities, such as CT, MRI, Nuclear Medicine, Sonography, PET scan, and Interventional and Cardiac Procedures. The students will access such factors as what projection/view is shown, anatomical anomalies, contrast, brightness, artifacts, and central ray correctly centered in the final images. The students will interact through classroom discussions and discussion board communications through the LMS. (SCC)

RESPIRATORY CARE

RT 101 - Respiratory Care Fundamentals I (3 cr)
This is the first in a series of three-quarter courses introducing respiratory care fundamentals. Students learn the respiratory care profession, fundamentals of infection control, patient safety and record keeping, patient assessment, fundamentals of oxygen therapy, humidity and aerosol therapy, and cardiopulmonary resuscitation. Prerequisite: Admission in program. (SCC)

RT 102 - Respiratory Care Fundamentals I Technical Skills Lab (1 cr)
This is the first in a series of three-quarter courses introducing respiratory care technical skills preparing the student for entry into the clinical setting. Prerequisite: Admission in program. (SCC)

RT 103 - Respiratory Care Anatomy and Physiology (2 cr)
This is an introductory course on cardiopulmonary anatomy and physiology. This course includes the structure and function of the cardiopulmonary system and is fundamental to the application of the art and science of respiratory care. Prerequisite: Admission in program. (SCC)

RT 104 - Respiratory Care Fundamentals II (2 cr)
This is the second in a series of three-quarter courses introducing respiratory care fundamentals. Interpretation of clinical laboratory data, thoracic imaging, oxygen analyzers, pulse oximetry, airway maintenance and secretion management, spontaneous hyperinflation techniques, and bronchial hygiene are emphasized. Prerequisite: Completion of previous quarter. (SCC)

RT 105 - Respiratory Care Fundamentals II Technical Skills Lab (2 cr)
This is the second in a series of three-quarter courses introducing respiratory care fundamentals technical skills. Laboratory/clinical skills will include interpretation of clinical laboratory data, thoracic imaging, oxygen analyzers, pulse oximetry, airway maintenance and secretion management, spontaneous hyperinflation techniques, and bronchial hygiene are emphasized. Prerequisite: Completion of previous quarter. (SCC)

RT 106 - Clinical Interpretation of Blood Gases (2 cr)
This course describes the interpretation of arterial blood gases including respiratory and metabolic acidosis and alkalosis. Advanced interpretation techniques are emphasized. Prerequisite: Completion of previous quarter. (SCC)

RT 107 - Respiratory Care Pharmacology (4 cr)
This course covers the principles of pharmacology as applied to respiratory care. Emphasis is given to bronchodilators, mucus controlling agents, surfactant agents, anti-infective agents, neuromuscular blocking agents, cardiac drugs and ACLS drugs. Prerequisite: Admission in program. (SCC)

RT 108 - Basic Life Support Instructor Course (2 cr)
This course develops the instructional and technical skills required by the American Heart Association to become a Basic Life Support Instructor and to become a member of the campus CPR Club. Prerequisite: Completion of previous quarter. (SCC)

RT 109 - Computer Applications in Respiratory Care (1 cr)
This course introduces the unique computer applications utilized in the discipline of respiratory care. Prerequisite: Completion of previous quarter. (SCC)

RT 110 - Physical Science for Respiratory Care (3 cr)
This introductory course applies physical sciences to cardiopulmonary physiology, respiratory care equipment and operation, and application of physical laws to mechanical and physiological measurements. Prerequisite: Admission in program. (SCC)

RT 114 - Respiratory Care Clinical I (1 cr)
This course is the first in a sequence of six courses developing the technical skills required for clinical practice. Prerequisite: Completion of previous quarter. (SCC)

RT 115 - Fundamentals of Spirometry and Blood Gas Analysis (2 cr)
This course is the first in a sequence of three courses in pulmonary diagnostics. Spirometry and the operation of blood gas instrumentation is emphasized. Prerequisite: Completion of previous quarter. (SCC)

RT 116 - Fundamentals of Spirometry and ABG Technical Skills Lab (1 cr)
This course is the first in a sequence of three courses developing the technical skills required for entry into the pulmonary diagnostic clinical sites. Prerequisite: Completion of previous quarter. (SCC)

RT 117 - Respiratory Care Fundamentals III (4 cr)
This course emphasizes pressure ventilation, bi-level pressure ventilation and mechanical ventilation. Prerequisite: Completion of previous quarter. (SCC)

RT 118 - Respiratory Care Fundamentals III Technical Skills Lab (2 cr)
This course teaches the technical skills required for caring for patients on positive pressure mechanical ventilation. Prerequisite: Completion of previous quarter. (SCC)

RT 119 - Cardiopulmonary Pathophysiology (3 cr)
This course describes the pathophysiology of pulmonary diseases, their diagnosis and treatment. Prerequisite: Completion of previous quarter. (SCC)

RT 121 - Respiratory Care Clinical II (2 cr)
This course emphasizes the technical skills required to care for patients with pulmonary disorders in non-critical care areas. Prerequisite: Completion of previous quarter. (SCC)

RT 122 - Respiratory Care Clinical III (8 cr)
This course emphasizes the technical skills required to care for patients with pulmonary disorders in non-critical care areas, in the emergency room, and adult intensive care settings. Prerequisite: Completion of previous quarter. (SCC)

RT 201 - Critical Care I (4 cr)
This introduces all aspects of the adult critically ill patient in need of life support systems, including hemodynamic monitoring, cardiopulmonary assessment and ventilator management. Prerequisite: Completion of previous quarter. (SCC)

RT 202 - Critical Care I Technical Skills Lab (2 cr)
This introduces the technical skills required of the adult critically ill patient in need of life support systems, including hemodynamic monitoring, cardiopulmonary assessment and ventilator management. Prerequisite: Completion of previous quarter. (SCC)

RT 203 - Advanced Cardiac Life Support Course (2 cr)
This course develops the cognitive skills required for advanced cardiac life support required by the American Heart Association. Combined with another lab portion and mega code allows the student to hold an ACLS card. Prerequisite: Completion of previous quarter. (SCC)

RT 204 - Advanced Cardiac Life Support Technical Skills Lab (1 cr)
This course develops the technical skills required by the American Heart Association, when combined with the lecture course to hold an ACLS card. Prerequisite: Completion of previous quarter. (SCC)

RT 205 - Pulmonary Volumes, Diffusion and Instrumentation (2 cr)
This course describes the indirect techniques used to measure lung volumes, diffusion and distribution of gases in the lungs. Prerequisite: Completion of previous quarter. (SCC)

RT 206 - PVDI Technical Skills Lab (1 cr)
This course applies the indirect techniques used to measure lung volumes, diffusion and distribution of gases in the lungs. Prerequisite: Completion of previous quarter. (SCC)

RT 207 - Respiratory Care Clinical IV (5 cr)
This course continues with the concepts presented in RT 201 with the additional of caring for the adult patient in the intensive care settings. Students observe and assist in patient assessment in the management of adult patients on ventilator support. Prerequisite: Completion of previous quarter. (SCC)

RT 208 - Pulmonary Diagnostics Clinical (1 cr)
This course is the first clinical course in of two emphasizing the performance of pulmonary function testing in the acute care facility and the private practice physician's office setting. Prerequisite: Completion of previous quarter. (SCC)

RT 213 - Electrophysiology (4 cr)
Students are introduced to the field of cardiovascular technology, basic cardiac anatomy; physiology and electrophysiology with emphasis on the performance and interpretation of the electrocardiogram. Laboratory experiences to support these concepts also are included. Prerequisite: Enrollment in respiratory care program or permission of instructor. (SCC)

RT 216 - Critical Care II (3 cr)
This course continues with the concepts in RT 201 emphasizing advanced mechanical ventilator applications and nonconventional approaches to patient management in critical care setting. Prerequisite: Completion of previous quarter. (SCC)

RT 217 - Critical Care II Technical Skills Lab (2 cr)
This course develops the technical skills required for acute care practice emphasizing advanced mechanical ventilator applications and nonconventional approaches to patient management in critical care setting. Prerequisite: Completion of previous quarter. (SCC)

RT 218 - Neonatal/Pediatric Respiratory Care (2 cr)
This course develops the technical skills required for acute care practice emphasizing advanced mechanical ventilator applications and nonconventional approaches to patient management in critical care setting. Prerequisite: Completion of previous quarter. (SCC)

RT 219 - Perinatal/Pediatric Technical Skills Lab (1 cr)
This course continues with the concepts presented in RT 218 with the emphasis on development of the technical skills required in the acute care setting. Prerequisite: Completion of previous quarter. (SCC)

RT 225 - Advanced Pulmonary Diagnostics (3 cr)
This course emphasizes advanced pulmonary function techniques including airway resistance measurement, bronchial provocation, cardiopulmonary exercise testing, indirect calorimetry, bronchoscopy assisting and sleep diagnostics. Prerequisite: Completion of previous quarter. (SCC)

RT 226 - Advanced Pulmonary Diagnostics Technical Skills Lab (1 cr)
In this course the student will demonstrate pulmonary function techniques including airway resistance measurement, bronchial provocation, cardiopulmonary exercise testing, indirect calorimetry, bronchoscopy assisting and sleep diagnostics. Prerequisite: Completion of previous quarter. (SCC)

RT 227 - Respiratory Care Clinical V (4 cr)
This course continues with the concepts presented in RT 207 with the addition of pediatric and neonatal intensive care settings. The students will observe and assist in patient assessment and ventilator support of these patients as well as adult patients in the intensive care setting. Prerequisite: Completion of previous quarter. (SCC)

RT 228 - Advanced Pulmonary Diagnostics Clinical (1 cr)
In this course the student will demonstrate pulmonary function techniques including airway resistance measurement, bronchial provocation, cardiopulmonary exercise testing, indirect calorimetry, bronchoscopy assisting and sleep diagnostics in the acute care setting. Prerequisite: Completion of previous quarter. (SCC)

RT 229 - Current Trends in Respiratory Care (4 cr)
This course explores current concepts in respiratory care and health care delivery with student presentations and discussions of cardiopulmonary patient case studies involving diagnostic and therapeutic modalities. In addition, concepts of caring for patients in the sub-acute and rehabilitation environment will be explored. Prerequisite: Completion of previous quarter. (SCC)

RT 235 - Patient Management and Problem Solving (3 cr)
This course introduces the application of respiratory care practices and procedures leading to patient problem solving including computer applications with clinical simulations based on entry and advanced national board exams. Prerequisite: Completion of previous quarter. (SCC)

RT 236 - Patient Management and Problem Solving Lab (1 cr)
This course introduces the application of respiratory care practices and procedures leading to patient problem solving including computer applications with clinical simulations based on entry and advanced national board exams. Prerequisite: Completion of previous quarter. (SCC)

RT 237 - Management in Health Care (2 cr)
This course introduces organizational structure, job description, evaluation, employee benefits reimbursement, budgeting, scheduling and other management skills required for employment in the health care industry. Prerequisite: Completion of previous quarter. (SCC)

RT 238 - Respiratory Care Clinical VI (5 cr)
Students transition from student practice to that of a respiratory care practitioner. Added clinical practice in the sub-acute, home care and optional rural environments is offered. Prerequisite: Completion of previous quarter. (SCC)

RT 241 - Fundamentals of Respiratory Care I (3 cr)
This is the first in a series of three-quarter courses introducing respiratory care fundamentals. Students learn the respiratory care profession, fundamentals of infection control, patient safety and record keeping, patient assessment, blood borne pathogens/HIV, patient-focused medical record review, American Heart Association HCP Card. Prerequisite: Admission to program. (SCC)

RT 242 - Fundamentals of Respiratory Care I Technical Skills Lab (2 cr)
This is the first in a series of three-quarter courses introducing respiratory care technical skills preparing the student for entry into the clinical setting. Admission to program. (SCC)

RT 244 - Cardiopulmonary Anatomy and Physiology (3 cr)
This is an introductory course on cardiopulmonary anatomy and physiology. This course includes the structure and function of the cardiopulmonary system and is fundamental to the application of the art and science of respiratory care. Prerequisite: Admission to program. (SCC)

RT 248 - Physical Science for Respiratory Care (3 cr)
This introductory course applies physical sciences to cardiopulmonary physiology, respiratory care equipment and operation, and application of physical laws to mechanical and physiological measurements. Prerequisite: Admission to program. (SCC)

RT 251 - Fundamentals of Respiratory Care II (3 cr)
This is the second in a series of three-quarter courses introducing respiratory care fundamentals. Students learn respiratory disease states, interpretation of clinical laboratory data, basic nutritional assessment, thoracic imaging, respiratory mechanic measurement, noninvasive monitoring, apnea monitoring and continuous oximetry/capnography, medical gas supply systems, medical gas therapy including oxygen and mixed-gas therapy, selection of a medical gas delivery system for acute and home care, humidity and aerosol therapy, selection of an aerosol delivery device for acute and home care, introduction to clinical simulation (COPD simulation-patient assessment). Prerequisite: Successful completion of previous term. (SCC)

RT 252 - Fundamentals of Respiratory Care II Technical Skills Lab (2 cr)
This is the second in a series of three-quarter courses introducing respiratory care fundamentals technical skills. Laboratory/clinical skills will include interpretation of clinical laboratory data, thoratic imaging, use of medical gas cylinders, reducing valves and regulators, use of medical gas piping systems, use of flow regulating devices, use of active and passive humidification devices, use of aerosol delivery devices, use of aerosol delivery devices for medication delivery, how to assess a patient for use of pMDI and DPI delivery devices, how to instruct a patient on using pMDI and DPI delivery devices. Prerequisite: Successful completion of previous term. (SCC)

RT 254 - Fundamentals of Spirometry (2 cr)
This course is the first in a sequence of three courses in pulmonary diagnostics. Students will learn the indications for spirometry, how to differentiate between forced and non-forced maneuvers, the clinical significance of spirometry and how to interpret a forced vital capacity. Prerequisite: Successful completion of previous quarter. (SCC)

RT 255 - Fundamentals of Spirometry Technical Skills Lab (1 cr)
This course is the first in a sequence of three courses developing the technical skills required for entry into the pulmonary diagnostic clinical sites. The student will learn how to assemble and calibrate a spirometer, how to perform and measure a non-forced vital capacity, how to perform and measure a forced vital capacity, how to perform and measure maximum voluntary ventilation, how to perform and measure flow-volume loops. Prerequisite: Successful completion of previous term. (SCC)

RT 256 - Interpretation of Arterial Blood Gases (2 cr)
This course describes the interpretation of arterial blood gases including respiratory and metabolic acidosis and alkalosis. Advanced interpretation techniques are emphasized. Prerequisite: Successful completion of previous term. (SCC)

RT 261 - Fundamentals of Respiratory Care III (4 cr)
This course is the third in a sequence of courses on the fundamentals of respiratory care. Students will learn how to demonstrate how to manage an airway, how to apply hyperinflation and secretion mobilization protocols, airway maintenance (positioning, simple airways, NT suctioning), emergency airway management, artificial airway management, hyperinflation therapy techniques, Intermittent Positive Pressure Ventilation, Bi-Level Positive Airway Pressure, Intrapulmonary Percussive Ventilation (IPV), secretion mobilization techniques (PAP, PEP, Flutter, Acapella, Aerobika, HFCWO, CPT, PD), drawing arterial blood gases, and an introduction to clinical simulation (NIPPV simulation–patient assessment). Prerequisite: Successful completion of previous term. (SCC)

RT 262 - Fundamentals of Respiratory Care III Technical Skills Lab (2 cr)
This course is the third in a sequence of courses on the fundamentals of respiratory care. Students will learn how to manage an airway, apply hyperinflation and secretion mobilization protocols, perform airway maintenance (positioning, simple airways, NT suctioning), perform emergency airway management, perform hyperinflation therapy techniques, perform Intermittent Positive Pressure Ventilation, perform Bi-Level Positive Airway Pressure, perform Intrapulmonary Percussive Ventilation (IPV), perform secretion mobilization techniques (PAP, PEP, Flutter, Acapella, Aerobika, HFCWO, CPT, PD), and draw arterial blood gases. Prerequisite: Successful completion of previous term. (SCC)

RT 263 - Respiratory Care Pharmacology (4 cr)
This is the first in a two part series on respiratory care pharmacology. In this course students will learn the principles of drug action, administration of aerosolized agents, calculation of drug dosages, central and peripheral nervous systems, adrenergic bronchodilators, anticholinergic bronchodilators, methyl xanthienes, mucous controlling drugs, and aerosolized anti-infective agents. Prerequisite: Successful completion of previous term. (SCC)

RT 264 - Computer Applications in Respiratory Care (1 cr)
This course is intended to provide the student with basic computer skills relevant to the profession of respiratory therapy. Content includes basic word-processing skills, basic PowerPoint skills, resume and cover letter writing, professional email composition, basic research strategies utilizing medical literature databases, an introduction to clinical informatics, and an introduction to clinical simulations. Prerequisite: Successful completion of previous term. (SCC)

RT 265 - RT Clinical I (1 cr)
This is the first in a series of clinical courses. The student will orientate to the facility and equipment, use electronic charting and deliver general patient care including assessment and prescribed medications. Written assignments will be completed including SOAP documentation, a Patient Care Plan and maintenance of clinical documentation. Prerequisite: Successful completion of previous term. (SCC)

RT 301 - Critical Care I (4 cr)
This introduces all aspects of the adult critically ill patient in need of life support systems. Topics will include ventilator taxonomy, non-invasive and invasive mechanical ventilation, ventilator monitoring, patient assessment, and liberation from mechanical ventilation. Prerequisite: Successful completion of previous term. (SCC)

RT 302 - Critical Care II (3 cr)
This course is a continuation of RT 301 Critical Care I introducing advanced concepts in all aspects of the adult and pediatric critically ill patient in need of life support systems. Topics will include therapies and approaches that deal with lung protective strategies in conjunction with non-invasive and invasive mechanical ventilation, advanced ventilator monitoring and patient assessment. Prerequisite: Successful completion of the previous term. (SCC)

RT 303 - Home Care and Rehabilitation (2 cr)
This course will introduce the application of respiratory care principles in the sub-acute care environment. Topics will include the economic impact of acute care, identification of patient populations who would benefit from sub-acute care, modification of oxygen therapy, artificial airway management, non-invasive modes of ventilation and invasive ventilation to meet the needs of sub-acute care. Course emphasis will include development of pulmonary rehabilitation, tobacco cessation and sub-acute care plans. Prerequisite: Successful completion of previous term. (SCC)

RT 304 - Pathophysiology (5 cr)
This course describes the pathophysiology of pulmonary diseases and their diagnosis and treatment. Disease states include obstructive, restrictive, circulatory, infectious, pleural diseases and skin/allergy testing. Prerequisite: Successful completion of previous term. (SCC)

RT 305 - Pulmonary Volumes Diffusion and Instrumentation (2 cr)
This course describes the indirect techniques used to measure lung volumes, diffusion and distribution of gases in the lungs. Techniques include nitrogen washout, helium dilution, body plethysmography, Fowler's distribution test, and single breath diffusion. Prerequisite: Successful completion of previous term. (SCC)

RT 308 - Basic Life Support Instructor (2 cr)
This course develops the instructional and technical skills required by the American Heart Association to become a Basic Life Support Instructor and to become a member of the campus CPR Club. Prerequisite: Successful completion of previous term. (SCC)

RT 309 - Advanced Pharmacology (3 cr)
This course will introduce advanced pharmacology specific to respiratory care in the care of critically ill patients. Focus will be on skeletal muscle relaxants, medications affecting the central nervous system, diuretic agents, and cardiovascular agents. Instruction is performed through a combination of didactic lessons and group review of patient case studies. Prerequisite: Successful completion of previous term. (SCC)

RT 311 - Critical Care I Technical Skills Lab (2 cr)
This course introduces the technical skills required to care for an adult critically ill patient in need of life support systems. Topics will include ventilator selection, airway management, and the application of non-invasive and invasive mechanical ventilation. Prerequisite: Successful completion of previous term. (SCC)

RT 312 - Critical Care II Technical Skills Lab (2 cr)
This course introduces the application of advanced techniques used in the management of the adult critically ill patient in need of life support systems. Students will demonstrate the applications of APRV, NAVA, PRVC, VC, VG, VS, lung protective strategies (ECMO, iNO, Liquid Ventilation, HFV), monitoring and parameter changes, principles of bedside pulmonary ultrasound, intra-aortic balloon pump and other forms of left and right ventricular assist devices. Prerequisite: Successful completion of previous term. (SCC)

RT 313 - Home Care and Rehabilitation Technical Skills Lab (1 cr)
This course will introduce the application of respiratory care equipment and principles in the sub-acute care environment. Topics will include selection and modification of oxygen therapy, airway management, non-invasive and invasive ventilators. Prerequisite: Successful completion of previous term. (SCC)

RT 315 - PVDI Technical Skills Lab (1 cr)
This course applies the indirect techniques used to measure lung volumes, diffusion and distribution of gases in the lungs. Techniques include nitrogen washout, helium dilution, body plethysmography, Fowler's distribution test, and single breath diffusion. Prerequisite: Successful completion of previous term. (SCC)

RT 321 - RT Clinical II (2 cr)
This is the second in a series of clinical courses perfecting skills in a non-critical acute care environment. Students will orientate to the facility, use electronic charting and deliver patient care including assessment, and delivery of prescribed medications, and participate in resuscitation or rapid response situations. Written assignments include patient care plans and maintenance of clinical documentation. Students are expected to develop critical thinking skills appropriate for the clinical environment. Prerequisite: Successful completion of previous term. (SCC)

RT 322 - RT Clinical III (2 cr)
This is the third in a series of clinical courses perfecting skills in a non-critical acute care environment. Students will orientate to the facility, use electronic charting and deliver patient care including assessment, delivery of prescribed medications, participate in resuscitation or rapid response situations, apply non-invasive ventilation, and draw arterial blood gases. Written assignments include patient care plans and maintenance of clinical documentation. Students are expected to develop critical thinking skills appropriate for the clinical environment. Prerequisite: Successful completion of previous term. (SCC)

RT 325 - PFT Clinical I (1 cr)
This course is the first clinical course in a series of two emphasizing the performance of pulmonary function testing in the acute care facility and the private practice physician's office setting. In a supervised setting a student will perform spirometry, spirometry with a bronchodilator, flow/volume loop, nitrogen washout or helium dilution, diffusion (DLCO), body plethysmography, and an arterial blood gas draw. Prerequisite: Successful completion of previous term. (SCC)

RT 331 - Critical Care Clinical I (5 cr)
This is the first in a series of clinical courses perfecting skills in critical care and non-critical acute care environments. Students will orientate to the facility, use electronic charting and deliver patient care including assessment, delivery of prescribed medications, participate in resuscitation or rapid response situations, apply non-invasive ventilation, apply invasive mechanical ventilation, draw arterial blood gases, and perform airway management. Written assignments include patient care plans and maintenance of clinical documentation. Students are expected to develop critical thinking skills appropriate for the clinical environment. Prerequisite: Successful completion of previous term. (SCC)

RT 401 - Pediatrics/Neonatal RT (3 cr)
This course introduces the unique aspects of dealing with the newborn, from delivery room intervention, patient assessment, oxygenation and ventilation needs, airway management, medication delivery, disease states and conditions, non-invasive and invasive ventilation and monitoring along with resuscitation techniques and practices. Prerequisite: Successful completion of previous term. (SCC)

RT 402 - Advanced Cardiovascular Life Support (2 cr)
This course is intended to provide the student with an advanced understanding of cardiovascular life support strategies. Topics will include ECG interpretation, cardiovascular pharmacology, airway management, electrical therapy, identification of cardiovascular compromise, and treatment strategies in emergency cardiovascular care. Students will receive an American Heart Association (AHA) ACLS card upon completion of the course. Prerequisite: Successful completion of previous term. (SCC)

RT 403 - Advanced Pulmonary Diagnostics (3 cr)
This course emphasizes advanced pulmonary function techniques including airway resistance measurement, bronchial provocation, cardiopulmonary exercise testing, indirect calorimetry, bronchoscopy assisting and sleep diagnostics. Prerequisite: Successful completion of previous term. (SCC)

RT 404 - Research in Respiratory Care (2 cr)
This course will introduce basic research methodologies relevant to respiratory care research. Research ethics will be incorporated into all discussions, and students will be required to complete the National Institutes of Health online course "Protecting Human Subjects". Prerequisite: Successful completion of previous term. (SCC)

RT 406 - Management in Respiratory Care (2 cr)
This course is an interactive introduction to management responsibilities in a respiratory care department. Focus will be on leadership qualities, roles, and responsibilities. Instruction is performed through a combination of didactic lessons, group discussion, and group project work. Attendance at the Respiratory Care Society of Washington's State Conference is highly encouraged. Prerequisite: Successful completion of previous term. (SCC)

RT 407 - Patient Management and Problem Solving (3 cr)
This course introduces the application of respiratory care practices and procedures leading to patient problem solving including computer applications with clinical simulations based upon the NBRC Therapist Multiple Choice (TMC) and Clinical Simulation (CS) Exams. Prerequisite: Successful completion of previous term. (SCC)

RT 409 - Research in Respiratory Capstone (2 cr)
In this course students are asked to apply concepts learned in RT 417 as well as other RT classes as they utilize the steps in developing a research study. Students will be asked to develop a hypothesis and conduct a literature review to summarize and synthesize the current body of evidence supporting or refuting their hypothesis. Students will then create a poster presentation to be presented at a local Respiratory Care Society of Washington meeting. Prerequisite: Successful completion of previous term. (SCC)

RT 410 - Fundamentals of Education Course Design (2 cr)
This course will introduce the student to the foundations of education. Topics will include the characteristics of the adult learner, audience assessment, performing a needs assessment, writing behavioral objectives, development of course syllabi, and measurement and evaluation. Prerequisite: Successful completion of previous term. (SCC)

RT 411 - Pediatrics/Neonatal Technical Skills Lab (2 cr)
This lab introduces the aspects of dealing with the newborns oxygenation and ventilation needs, airway management and lung protective strategies while also receiving American Heart Association (AHA) training and certification in Neonatal Resuscitation Program (NRP) and Pediatric Advanced Life Support (PALS). Prerequisite: Successful completion of previous term. (SCC)

RT 412 - Advanced Cardiovascular Life Support Lab (1 cr)
This course is intended to provide hands on training of advanced cardiovascular life support techniques. Focus will be on application of skills relating to ECG interpretation, airway management, electrical therapy, cardiovascular pharmacology, CPR, and team member roles and responsibilities. Prerequisite: Successful completion of previous term. (SCC)

RT 413 - Advanced Pulmonary Diagnostics Technical Skills Lab (1 cr)
In this course the student will demonstrate pulmonary function techniques including airway resistance measurement, bronchial provocation, cardiopulmonary exercise testing, indirect calorimetry, bronchoscopy assisting and sleep diagnostics. Prerequisite: Successful completion of previous term. (SCC)

RT 415 - Disease Management (4 cr)
This course will introduce the student to contemporary disease management. Topics will include prevalent conditions among high risk patients, Global Initiative for Chronic Obstructive Lung Disease (GOLD) standard, National Asthma Education and Prevention Program (NAEPP), CardioSmart guidelines for congestive heart failure (CHF), and the management of obstructive sleep apnea (OSA). Prerequisite: Successful completion of previous term. (SCC)

RT 416 - Disaster Management (2 cr)
This course will introduce disaster management practices related to respiratory care. The focus will be on mass casualty events, pandemic events, chemical and biological agents, hospital triage systems, infection control processes, and care for patients with serious communicable diseases. Instruction will be delivered through a combination of didactic lecture and case study review. Prerequisite: Successful completion of previous term. (SCC)

RT 417 - Patient Management and Problem Solving Technical Skills Lab (1 cr)
This course introduces the application of respiratory care practices and procedures leading to patient problem solving including computer applications based upon the NBRC Therapist Multiple Choice (TMC) and Clinical Simulation (CS) exams with active student participation. Prerequisite: Successful completion of previous term. (SCC)

RT 421 - Critical Care Clinical II (4 cr)
This is the second in a series of Critical Care clinical courses perfecting skills in a critical acute care environment. Students will orientate to the facility, use electronic charting and deliver patient care including patient assessment, delivery of prescribed medications, participate in resuscitation, apply invasive ventilation, and draw arterial blood gases from arterial lines. A surgical rotation is offered to provide additional time in airway management, patient monitoring and medications, while observing thoracic and abdominal surgery. Written assignments include patient care plans and maintenance of clinical documentation. Students are expected to continue to develop critical thinking skills appropriate for the clinical environment. Prerequisite: Successful completion of previous term. (SCC)

RT 423 - Advanced Pulmonary Diagnostics Clinical (1 cr)
In this course the student will demonstrate pulmonary function techniques including airway resistance measurement, bronchial provocation, cardiopulmonary exercise testing, indirect calorimetry, bronchoscopy assisting and sleep diagnostics in the acute care setting. Prerequisite: Successful completion of previous term. (SCC)

RT 424 - Pediatric/Neonatal Clinical (3 cr)
This course involves the Neonatal Critical Care, Pediatric Critical Care and Intermediate/General Pediatric patients. Students will orientate to the facility, use electronic charting and deliver patient care including patient assessment, delivery of prescribed medications, oxygen therapy and secretion removal, participate in resuscitation, apply invasive and non-invasive ventilation and monitoring, observe and assist with high risk newborn deliveries, and analyze cord, capillary, radial and arterial line blood gases. Written assignments include patient care plans, physician interactions and maintenance of clinical documentation. Students are expected to continue to develop critical thinking skills appropriate for the clinical environment. Prerequisite: Successful completion of previous term. (SCC)

RT 425 - Advanced Critical Care Clinical (2 cr)
This is the third in a series of Critical Care clinical courses perfecting skills in a critical acute care environment and sub-acute/long term care ventilator patients. Students will orientate to the facility, use electronic charting or paper documents and deliver patient care including patient assessment, delivery of prescribed medications, oxygen delivery, airway management and trach care, participate in long term ventilator liberation, apply invasive ventilation and other lung protective techniques to improve oxygenation, draw arterial blood gases and participate in patient transports. Written assignments include patient care plans, physician interactions and maintenance of clinical documentation. Students are expected to continue to develop critical thinking skills appropriate for the clinical environment. Prerequisite: Successul completion of previous term. (SCC)

RT 433 - Advanced Clinical (5 cr)
This is the last clinical course. Students are expected to demonstrate proficiency in all clinical skills in a critical acute care, sub-acute/long term care, and home care settings on all patients in all areas both inside and out of the Critical Care Environments with or without invasive and non-invasive ventilator patients and attend one Pulmonary Rehab session. Students will gain instructor experience by mentoring lower level students (Jr), under the direction of a preceptor. A two day class project occurs during the last week where students set up and run the Respiratory Care Department with elected class supervisors under direct preceptor observation. Students will orientate or re-orientate to the facilities, use electronic charting or paper documents, and assist or directly deliver all respiratory patient care and patient transport on receiving end from local ambulance or helicopter. Written assignments include patient care plans, physician documentation, and maintenance of clinical documentation. Students are expected to continue to develop and display critical thinking skills appropriate for the clinical environment. Prerequisite: Successful completion of previous term. (SCC)

SOCIOLOGY

SOC& 101 - Intro to Sociology (5 cr)
Basic concepts and theories of sociology with an emphasis on the group aspects of human behavior. (SCC, SFCC)

SOC& 201 - Social Problems (5 cr)
Social problems have existed in societies throughout time. We live in an increasingly connected world where the social problems experienced in one nation are influenced by events in other parts of the world. This class explores social problems in the U.S. as well as examines social problems on a global scale. Topics covered include: Globalization, world economy and world poverty, human rights, population growth and environmental destruction, race and gender, crime, war and terrorism. (SCC, SFCC)

SOC 204 - Research Methods in Social Science (5 cr)
The study of the basic data, theory, methodology and attitudes of the social scientist independent of any special area. Prerequisite: PSYC& 100 or SOC& 101. (SCC, SFCC)

SOC 211 - Marriage and the Family (5 cr)
A sociological analysis of the institution of the family including historical and cross-cultural variations of the family structure and mate selection processes; the modern family institution with regard to the sexual, reproductive, economic and socialization function; newly emerging lifestyles, alternate living patterns, family disorganization, and changing definitions of family. (SCC, SFCC)

SOC 221 - Race and Ethnic Relations (5 cr)
We are a society unprecedented in its diversity of color, class, and cultural origin that reflects the fundamental ethnic and racial composition as well as stratification of the United States population. This class offers a comprehensive examination of race relations that commences with an appreciation of diversity in the United States and seeks to understand these relations through a historically grounded comparative analysis of several dominant/minority global patterns. (SCC, SFCC)

SOC 230 - Sociology of Gender (5 cr)
Sociology of Gender examines the changing views of gender in modern society and explores the available research on the social and institutional pressures that shape women and men and their roles in society. This course directly confronts the myths, misconceptions and stereotypes surrounding nearly every aspect of gender, including work, education, sexuality, politics, economics, marriage, family, crime and spirituality. This course also includes a cross-cultural perspective on gender. (SFCC)

SOC 261 - Crime and Justice (5 cr)
Explores the phenomenon of crime; considers its causes, theories of prevention and the institutional means employed to combat it, including police, courts and corrections. Crime is interpreted as an American paradox; it is feared and deplored, yet persists and grows. The course examines that paradox by focusing on cultural contradiction in American society regarding crime, justice and punishment. (SCC, SFCC)

SOC 273 - Introduction to Social Work (5 cr)
This course explores the history of social work and social welfare in the United States. Students will gain an understanding of values and ethics related to social work practice social work interventions related to issues of social justice, oppression and discrimination.This course is designed to familiarize the student to social work's historical roots as well as to expose him/her to the knowledge, values and skills required for social work practice in diverse settings with different client groups. (SFCC)

SPANISH

SPAN& 121 - Spanish I (5 cr)
These courses are an introduction to the Spanish language, traditions and culture using the most modern methods of language learning with emphasis on oral communication. Students complete lab assignments outside of scheduled class times. (SCC, SFCC)

SPAN& 122 - Spanish II (5 cr)
These courses are an introduction to the Spanish language, traditions and culture using the most modern methods of language learning with emphasis on oral communication. Students complete lab assignments outside of scheduled class times. Prerequisite: SPAN& 121 or permission of instructor. (SCC, SFCC)

SPAN& 123 - Spanish III (5 cr)
These courses are an introduction to the Spanish language, traditions and culture using the most modern methods of language learning with emphasis on oral communication. Students complete lab assignments outside of scheduled class times. Prerequisite: SPAN& 122 or permission of instructor. (SCC, SFCC)

SPAN& 221 - Spanish IV (5 cr)
Intensive review plus emphasis on Spanish culture and the idiomatic usage of the language, both oral and written. Prerequisite: Two years of high school Spanish or one complete year of college Spanish or permission of instructor. (SCC, SFCC)

SPAN& 222 - Spanish V (5 cr)
This course places emphasis on the composition and discussion of contemporary and cultural issues, with increasingly difficult idioms and structural concepts. Prerequisite: SPAN& 221 or permission of instructor. (SCC, SFCC)

SPAN& 223 - Spanish VI (5 cr)
This course places continued emphasis on the composition and discussion of contemporary issues as well as Hispanic and Latin American culture, with increasingly difficult vocabulary and structural concepts. Prerequisite: SPAN& 221, 222 or permission of instructor. (SCC, SFCC)

SPAN 241 - Spanish Conversation and Culture (2 cr)
A course in which students will have the opportunity to increase their vocabulary, to improve their speaking ability, and to gain more confidence in using previously studied grammatical concepts. Conducted in Spanish. Prerequisite: SPAN 121 or concurrent enrollment in SPAN 121 or 122 or 123 or permission of instructor. (SFCC, SCC)

SPAN 242 - Spanish Conversation and Culture (2 cr)
Students continue to develop their fluency in Spanish by participating in small group discussions that focus on a wide variety of topics in Hispanic culture. Conducted in Spanish. May be taken without SPAN 241 as a prerequisite. Prerequisite: Two years of college-level Spanish (SPAN& 223) or equivalent. (SFCC)

SURGICAL TECHNOLOGY

SURG 100 - Introduction to Surgical Technology (2 cr)
This course introduces the roles of the surgical technologist emphasizing the surgical environmental and procedural safety concerns. (SCC)

SURG 101 - Surgical Procedures (5 cr)
This course is an introduction to the knowledge and techniques essential to the surgical technologist in preparation of the patient for major or minor surgical procedures. Expertise in preparation/utilization of equipment and supplies, sterilization/disinfection, aseptic techniques, robotics, and duties of the surgical technologist and assistant circulator are emphasized. Health care provider CPR is included. Prerequisite: HED 125, SURG 100, 120. (SCC)

SURG 104 - Central Service Clinical (1 cr)
This clinical rotation allows students the opportunity to develop performance competencies appropriate to central service units. (SCC)

SURG 105 - Blood-borne Pathogens and HIV/AIDS (1 cr)
Students are introduced to current information on blood-borne pathogens with an emphasis on HIV/AIDS education utilizing the 7-hour Washington State curriculum. This course is offered online only. (SCC)

SURG 107 - Surgical Environment (3 cr)
Students learn the skills required for the physical environment (working condition) of the operating room. Understanding the basic patient and staff safety issues are emphasized. Prerequisite: Successful completion of first quarter coursework and concurrent enrollment in HED 125, SURG 100. (SCC)

SURG 111 - Technical Skills I (4 cr)
This course provides practical applications for performing the duties of a circulating assistant and scrub technician in a simulated operating room. Duties include patient preparation, equipment and supplies preparation, instrumentation, sterilization/disinfection practices, and aseptic techniques. Prerequisite: Concurrent enrollment in SURG 101. (SCC)

SURG 120 - Disease Transmission and Control (3 cr)
This course introduces students to basic microbiology theory including discussion of pathogenic microorganisms. Methods of transmission, identification of microorganisms in the operating room, and growth control and practices in the operating room are emphasized. (SCC)

SURG 202 - Surgical Procedures (6 cr)
This course continues with the concepts introduced in SURG 101 with emphasis on advanced preparation and utilization of electrical equipment and lasers. Supplies necessary for specific specialties and various surgical procedures are included. Prerequisite: SURG 101 and concurrent enrollment in SURG 212, 254. (SCC)

SURG 203 - Surgical Procedures (4 cr)
This course continues with the concepts introduced in SURG 202 with emphasis on advanced preparation and utilization of equipment. Supplies necessary for specific advanced specialties and various surgical procedures are included. An introduction of physics is presented. Prerequisite: SURG 202, 212 and concurrent enrollment in SURG 206, 255. (SCC)

SURG 206 - Perioperative Care of the Patient (4 cr)
Students learn the skills required for preoperative, intraoperative and postoperative phases of the surgical patient. Understanding the patient's pharmacologic, ethical, anesthetic, wound healing and other related nursing needs are emphasized. Prerequisite: Successful completion of fourth-quarter coursework and concurrent enrollment in SURG 203, 255. (SCC)

SURG 212 - Technical Skills II (4 cr)
This course continues with the applications introduced in SURG 111. Duties include patient preparation, equipment and supplies preparation, sterilizing practices, and disinfection and aseptic techniques. Prerequisite: Successful completion of SURG 101, 111 and concurrent enrollment in SURG 202. (SCC)

SURG 250 - Surgical Seminar (3 cr)
This weekly conference is based on discussion from the students' operating room experience in the form of case studies. Students also review for preparation for the national certification test. Prerequisite: SURG 255. (SCC)

SURG 254 - Operating Room Practicum (2 cr)
This course provides surgical technology students with actual experience in the operating room. In this pre-arranged practicum, students learn teamwork, flexibility, organization, and economy in time, motion and materials. Preparation of all supplies and equipment used for surgical procedures in the operation room is included. Prerequisite: SURG 101, 104, 111 and concurrent enrollment in SURG 202, 212. (SCC)

SURG 255 - Operating Room Practicum (5 cr)
This course provides surgical technology students with actual experience in the operating room. In this pre-arranged practicum, students learn teamwork, flexibility, organization, and economy in time, motion and materials. Preparation of all supplies and equipment used for surgical procedures in the operation room is included. First and second scrubbing procedures under the supervision of operating room personnel or instructor are emphasized. Prerequisite: SURG 202, 212, 254 and concurrent enrollment in SURG 203, 206. (SCC)

SURG 256 - Operating Room Practicum (10 cr)
Students gain clinical experience in affiliated hospital operating rooms assisting the circulator, and shadowing anesthesia and maternity technicians. Prerequisite: SURG 203, 206, 255 and concurrent enrollment in SURG 250. (SCC)

UTILITY CONSTRUCTION

UTIL 101 - Utility Construction I (11 cr)
This course introduces students to the utility construction basics. Safety training and fundamentals of electricity are emphasized. The safe Operation of a variety of equipment is covered. (SCC)

UTIL 102 - Utility Construction II (11 cr)
This course continues with the concepts introduced in UTIL 101. Demonstrating appropriate safety techniques is emphasized. Applying electrical principles and theories, interpretation of job prints and standards and radio communications is stressed. (SCC)

UTIL 103 - Gas or Line Construction (21 cr)
This course continues with advanced concepts in utility construction either gas or line construction. Advanced concepts in electricity and interpretation of job prints and standards are emphasized. Certifications and CDL License, Class A earned. (SCC)

VASCULAR TECHNOLOGY

VASC 100 - Introduction to Echo and Vascular (2 cr)
Introduction to the field of Echocardiography and Vascular Technology with emphasis on the role of these career pathways. Stresses the importance of professionalism, ethical behavior, and communications. Career opportunities, Credentialing, Program and Health Science student handbooks will be reviewed. Prerequisite: Admission to the program and concurrent enrollment in VASC 112, 125. (SCC)

VASC 112 - Vascular Fundamentals (4 cr)
This course is an introduction to basic vascular anatomy of the lower and upper extremities, abdomen, visceral organs and cerebral vasculature with emphasis on the physiology of these systems. An introduction to the concepts essential for the performance and interpretation of vascular exams is also included. Laboratory experience is required. (SCC)

VASC 116 - Acute Coronary Syndrome (1 cr)
A study of the nations number one killer in its acute phase. Pathophysiology of atherosclerosis. The stable versus the unstable patient. Vulnerable plaque types. STEMI versus NSTEMI patient presentations. The national door to balloon initiative. 12 lead EKG recognition of the signs of ischemia/infarct patterns. Prerequisite: Enrollment in vascular technology program or permission of instructor. (SCC)

VASC 117 - Cardiovascular Pharm 1 (1 cr)
Introduction to cardiovascular pharmacology. A review of control of heart rate, blood pressure, and cardiac output and the common drug groups employed to manipulate these parameters. Prerequisite: Enrollment in vascular technology program or permission of instructor. (SCC)

VASC 122 - Vascular Procedures I (4 cr)
This course introduces students to the basic vascular procedures used to assess the lower and upper extremities, abdomen, visceral organs and cerebral vascolature with emphasis on the ultrasonic examinations of these systems. Instrumentation commonly used in the vascular laboratory is also presented. Laboratory experience is required. Prerequisite: Admission to the program and concurrent enrollment in VASC 135. (SCC)

VASC 123 - Hemodynamics (2 cr)
Introduction to various forms of invasive monitoring. Emphasis is placed on the basics of hemodynamic monitoring and interpretation. Normal and pathologic examples are introduced. (SCC)

VASC 124 - Cardiovascular Pharm 2 (1 cr)
Continuation of VASC 117 Intro to CV Pharm. Advanced Cardiac Life Support drugs are introduced. Pharmacy math is introduced. Pharmacy law is studied. Principles of IV therapy are introduced. Prerequisite: Enrollment in vascular technology program or permission of instructor. (SCC)

VASC 125 - Ultrasound Physics and Instrumentation I (5 cr)
This course emphasizes ultrasound physics, the physics of waves, sound transmission, attenuation, pulse wave principles, transducer and ultrasound systems operations. Prerequisite: Admission to the program and concurrent enrollment in VASC 100, 112. (SCC)

VASC 126 - Technical Skills/Reading Hemodynamics (1 cr)
Introduction to various forms of invasive monitoring. Emphasis is placed on the basics of hemodynamic monitoring and interpretation. Normal and pathologic examples are introduced. Supports concepts taught in ICT 125. Prerequisite: Permission of instructor. (SCC)

VASC 127 - Technical Skills/Pharmacology (1 cr)
Introduction to various forms of invasive monitoring. Emphasis is placed on the basics of hemodynamic monitoring and interpretation. Normal and pathologic examples are introduced. Supports concepts taught in VASC 117. Prerequisite: Permission of instructor. (SCC)

VASC 131 - Core Concepts in Vasc (2 cr)
The core concepts in cardiac and vascular imaging will be explored. Applications of blood flow and hemodynamic analysis using Doppler and imaging technologies. Review of current literature and standards documents will be conducted. Prerequisite: Admission to the program and concurrent enrollment in VASC 132, 133, 138. (SCC)

VASC 132 - Vascular Procedures II (6 cr)
This course is a continuation of VASC 122. Students are exposed to more detailed vascular procedures used to assess the lower and upper extremities, abdomen, visceral organs and cerebral vasculature with emphasis on the ultrasonic examinations of these systems. Instrumentation commonly used in the vascular laboratory is also presented. Prerequisite: Admission to the program and concurrent enrollment in VASC 131, 134, 136. (SCC)

VASC 133 - ECHO Fundamentals (5 cr)
Introduction to the basic principles and application of the Doppler and echocardiographic procedures. The anatomy, image assessment, hemodynamics and clinical applications of cardiac ultrasound are emphasized. Laboratory experiences are provided. Prerequisite: Admission to the program and concurrent enrollment in VASC 131, 132, 138. (SCC)

VASC 134 - Vascular Technical Skills I (2 cr)
The student will develop intermediate skills in performing all vascular technology examinations, including cerebrovascular, peripheral arterial, peripheral venous and visceral/abdominal vascular examinations, in a clinical simulation format. Emphasis is on the development of the essential skills in the performance of all vascular technology imaging techniques. Prerequisite: Admission to the program and concurrent enrollment in VASC 131, 132, 136. (SCC)

VASC 135 - Ultrasound Physics and Instrumentation II (5 cr)
This course is a continuation of the concepts introduced in VASC 125. Ultrasound physics emphasizes the Doppler techniques, artifacts, bio utilizing instrumentation to investigate the principles of Doppler techniques and artifacts. Prerequisite: Admission to the program and concurrent enrollment in VASC 122. (SCC)

VASC 136 - Comparative Imaging Analysis (3 cr)
The student will be exposed to normal anatomy and pathology cases that combine diagnostic medical sonography, computed tomography, magnetic resonance imaging and angiography. The student will gain an understanding of how diagnoses are made and patients are managed on the basis of findings from multiple imaging modalities. Prerequisite: Admission to the program and concurrent enrollment in VASC 131, 132, 134. (SCC)

VASC 138 - Cardiovascular Physiology (4 cr)
This course is an advanced study of normal cardiovascular physiology presented in a series of physician lectures and lab demonstrations with applications in invasive and noninvasive cardiology. Prerequisite: BIOL& 241, 242. Admission to the program and concurrent enrollment in VASC 131, 132, 133. (SCC)

VASC 139 - Surgical Asepsis (1 cr)
Surgical asepsis for health care providers. This class will prepare the student to create a sterile field. Gown and glove themselves and others. Procedural awareness of working in a sterile field will be developed. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

VASC 140 - Technical Skills/Surgical Asepsis (1 cr)
This class supports ICT 140. The skills of surgical asepsis and infection control are taught. Working in a sterile field and gowning and gloving are taught. Develop a surgical conscience. Prerequisite: Enrollment in ICT program or permission of instructor. (SCC)

VASC 141 - Data Collection and Presentation (3 cr)
Students explore applications in medicine and develop the ability to use the microprocessor for word processing database management and statistical analysis. Principles of statistics are reviewed and applied through database management. Prerequisite: Admission to the program and concurrent enrollment in VASC 143, 144. (SCC)

VASC 142 - Survey of Diagnostic Medical Sonography (3 cr)
A survey of basic diagnostic medical sonography with an emphasis on normal abdominal and superficial structures anatomy and abnormal disease states. Standard sonographic imaging techniques of abdomen and superficial structures, instrumentation and examination protocols will be reviewed. Laboratory experience is required. Prerequisite: Admission to the program. (SCC)

VASC 143 - Vascular Screening Simulation (4 cr)
Students are introduced to the clinical environment by spending four weeks in the clinical setting under the direction of a staff technologist. Weekly clinical seminars are conducted with SCC staff. A clinical consciousness is developed that emphasizes professionalism, clinical rapport, medical ethics and patient care. Prerequisite: Admission to the program and concurrent enrollment in VASC 141, 144. (SCC)

VASC 144 - Vascular Screening Seminar (2 cr)
Vascular screening seminar will be conducted weekly to discuss cases presented during the vascular screening procedures performed. A clinical consciousness will be developed with emphasis on professionalism, clinical rapport, medical ethics and patient care. Prerequisite: Admission to the program and concurrent enrollment in VASC 141, 143. (SCC)

VASC 213 - Electrophysiology (4 cr)
Students are introduced to the field of cardiovascular technology, basic cardiac anatomy; physiology and electrophysiology with emphasis on the performance and interpretation of the electrocardiogram. Laboratory experiences to support these concepts also are included. Prerequisite: Enrollment in vascular technology program or permission of instructor. (SCC)

VASC 251 - Vascular Technical Skills (4 cr)
The student will develop intermediate to advanced skills in performing all vascular technology examinations, including cerebrovascular, peripheral arterial, peripheral venous and visceral/abdominal vascular examinations, in a clinical simulation format. Emphasis is placed on new developments and specialty applications as well as development of the essential skills in the performance of all vascular technology imaging techniques. All procedures are performed under the supervision of credentialed vascular technologists. Prerequisite: Admission to the program. (SCC)

VASC 252 - Advanced Vascular Techniques (7 cr)
This course uses the fundamentals presented in the first year of vascular technology to evaluate acquired vascular disease states. The incorporation of all forms of vascular testing performance and interpretation of ultrasonic, Doppler and plethysmographic examinations are presented. Related physician lectures and laboratory experiences are provided. (SCC)

VASC 253 - Vascular Clinical I (2 cr)
Students obtain advanced hands-on experience in hospital and clinical environments. Development of clinical technique in the utilization of current echocardiographic instrumentation in the evaluation of acquired cardiovascular disease is emphasized. Students apply the principles of medical legal ethics and professionalism to the patient, physician and other members of the health team. Clinical case reports are required. Prerequisite: Admission to the program and concurrent enrollment in VASC 252. (SCC)

VASC 254 - Vascular Clinical Preparation (2 cr)
Students review all course materials in the first year with application on the clinical setting. Students develop skill at identification of both normal and abnormal images. Course is aligned with technical skills laboratory experience to allow students to develop clinical skills prior to assignment in a clinical setting. Prerequisite: Admission to the program. (SCC)

VASC 255 - Research Methods and Biostatistics (3 cr)
This course will discuss the basic principles of epidemiology and descriptive biostatistics as they apply to echocardiography and vascular technology. Topics include basic statistics, disease occurrence and recurrence, patterns and trends in a population, and interpretation of results. Prerequisite: Admission to program and concurrent enrollment in VASC 251, 252, 253, 254. (SCC)

VASC 256 - Cardiovascular Pathophysiology (1 cr)
This course describes the pathophysiology of cardiovascular diseases, their diagnosis and treatment. Presented as a series of physician lectures. Prerequisite: Enrollment in vascular technology program or permission of instructor. (SCC)

VASC 262 - Vascular Clinical II (14 cr)
Students practice clinical skills previously developed through active participation in a vascular laboratory. This course is a full-time clinical internship and is completed in an affiliated local or out-of-town hospital, clinic, or physician's office. Emphasis of this course is on the clinical skills necessary for the performance and evaluation of the vascular procedures. Written reports, review of current literature and attendance at conferences are required. Prerequisite: Admission to the program. (SCC)

VASC 272 - Vascular Clinical III (14 cr)
This course is a continuation of VASC 262 and includes a full-time clinical internship and is completed in an affiliated local or out-of-town hospital, clinic, or physician's office. Emphasis of this course is on the clinical skills necessary for the performance and evaluation of the vascular procedures. Written reports, review of the current literature and attendance at conferences are required. Prerequisite: Admission to the program. (SCC)

VASC 299 - Independent Studies in Vascular Technology (1-13 cr)
This course is designed for students wishing to complete specialized studies in the field of vascular technology. Objectives are developed jointly by the student and instructor. Credit hours are assigned according to the length of time required to complete the objectives. Credits are agreed upon at the time of enrollment. Students complete specialized clinical internships in pediatric echocardiography, color flow mapping or vascular technology. Prerequisite: Current enrollment or graduate of Vascular Technology, or permission of instructor. (SCC)

WATER RESOURCES TECHNOLOGY

WATER 109 - Introduction to Water Resources (5 cr)
This course introduces the fundamentals of field hydrology and the various components of the hydrologic cycle with an emphasis on runoff and hydrologic measurements, basic computational techniques, and water rights doctrines. (SCC)

WATER 110 - Hydrogeology (5 cr)
Students study the basic geologic framework and hydrology of aquifers. Geologic factors such rock type, structure, geomorphology and geologic environments are introduced. Groundwater terminology, basic principles of groundwater flow, practical application of geologic maps and aerial photos, and basic computational skills are emphasized. (SCC)

WATER 120 - Hydrologic Technical and Field Reports (5 cr)
This course introduces the fundamental techniques of gathering, organizing and presenting technical hydrologic information in written and verbal form. Research of employment opportunities and various job descriptions particular to the water resources career field is conducted. Students learn to complete job application forms and resumes. (SCC)

WATER 128 - Occupational Preparation and Experience (1-10 cr)
This practical course assists students in pursuing careers in water resources. Students learn to complete employment applications, resumes and employment portfolios. Faculty assist students in making employer contacts, interviewing and follow-up. Students are required to evaluate their work experiences and submit comprehensive written and oral reports. (SCC)

WATER 129 - Occupational Preparation and Experience (1-10 cr)
This practical course assists students in pursuing careers in water resources. Students learn to complete employment applications, resumes and employment portfolios. Faculty assist students in making employer contacts, interviewing and follow-up. Students are required to evaluate their work experiences and submit comprehensive written and oral reports. (SCC)

WATER 131, 132, 133, 231, 232, 233 - Hydrologic Field Projects (1-3 cr ea)
This course provides practical experience that allows students to gain additional knowledge in a special topic of interest in water resource management. Guidance from the water resource instructors is provided to help students maximize their projects. (SCC)

WATER 135 - Pumps, Pipes, Hydrants, and Valves (3 cr)
Introduction to common pumps, pipes, hydrants, and valves used in water and waste water operations. (SCC)

WATER 205 - Differential Leveling (3-5 cr)
This course introduces principles of differential levelling emphasizing common applications in Environmental Sciences field investigations, such as cross sectional and longitudinal profiles. Prerequisite: NATRS 122. (SCC)

WATER 206 - Basic Mechanical Maintenance and Repair (3 cr)
Introduction to basic mechanical maintenance and repair procedures commonly used in water and waste water operations. (SCC)

WATER 208 - Water Data and Records Analysis (3 cr)
A survey of the fundamentals of hydrologic data collection, documentation practices, computational techniques, data analysis/interpretation and graphical representations. Stream gaging and use of stage discharge relationships is emphasized. (SCC)

WATER 209 - Water Quality (5 cr)
This course introduces geologic and drainage basin characteristics. Students learn how man's influence through management activities impact water quality, timing and quantity of flow. Students study ecologic characteristics from a limnological viewpoint combining aspects of water quality and biology. Water quality field sampling and laboratory procedures are practiced. (SCC)

WATER 210 - Hydrologic Measurement (3 cr)
This course offers practical experience in the fundamentals of streamflow measurement with emphasis on discharge and stage monitoring. The use, care and maintenance of various instruments and equipment are stressed. (SCC)

WATER 211 - Water and Wastewater Regulations (3 cr)
An introduction to federal, state, and tribal water quality regulations pertaining to water and waste water operations. (SCC)

WATER 212 - Water Rights and Laws (5 cr)
Students to gain a basic understanding of the water rights doctrines and learn practical applications in water management. Water quality regulations that govern the use of water in the western states is emphasized such as the Clean Water Act, Washington State Forest Protection Act and Spokane County regulations. (SCC)

WATER 215 - Construction Inspection and Management (3 cr)
Introduction to planning, coordinating, and inspecting construction practices and related procedures in water and waste water operations. (SCC)

WATER 218 - Hazardous Materials (3 cr)
Students study hazardous materials regulations, terminology, identification systems, shipping and storage containers, incident command systems and basic analysis, information resources, chemical protective clothing, and decontamination. This course meets the requirements for the 40-hour certificate. (SCC)

WATER 228 - Occupational Preparation and Experience (1-10 cr)
This practical course assists students in pursuing careers in water resources. Students learn to complete employment applications, resumes and employment portfolios. Faculty assist students in making employer contacts, interviewing and follow-up. Students are required to evaluate their work experiences and submit comprehensive written and oral reports. (SCC)

WATER 229 - Occupational Preparation and Experience (1-10 cr)
This practical course assists students in pursuing careers in water resources. Students learn to complete employment applications, resumes and employment portfolios. Faculty assist students in making employer contacts, interviewing and follow-up. Students are required to evaluate their work experiences and submit comprehensive written and oral reports. (SCC)

WATER 288 - Cooperative Education Work Experience (No Seminar) (1-18 cr)
For course description, see Cooperative Education. (SCC)

WELDING AND FABRICATION

WELD 104 - Welding and Fabrication Basics (5 cr)
Students learn the basic concepts of welding and fabrication. (SCC)

WELD 113 - Welding Math (1-3 cr)
This course introduces theory and practical application utilizing formulas to solve problems encountered in the fabrication industry. This course may be repeated up to three times for a total of three credits. Prerequisite: Concurrent enrollment in WELD 114, 115, 116, 117 or permission of instructor. (SCC)

WELD 114 - Introduction to Blueprint Reading (2 cr)
This course introduces students to blueprint reading. Structural shapes, conventional and auxiliary views, sections, and welding joints are emphasized. Prerequisite: Concurrent enrollment in WELD 113, 115, 116, 117 or permission of instructor. (SCC)

WELD 115 - Introduction to Fabrication (3 cr)
This course introduces tools, equipment and materials used in the layout and fabrication of a variety of welding projects with emphasis on their functions and proper use. Welding shop safety procedures are stressed. Prerequisite: Concurrent enrollment in WELD 113, 114, 116, 117 or permission of instructor. (SCC)

WELD 116 - Shielded Metal Arc Welding Theory (3 cr)
This course introduces shielded metal arc welding theory. Welding safety and positions, equipment setup, striking an arc, and cutting operations are emphasized. Prerequisite: Concurrent enrollment in WELD 113, 114, 115, 117 or permission of instructor. (SCC)

WELD 117 - Shielded Metal Arc Welding Applications (1-7 cr)
This course offers practical lab experience utilizing the concepts introduced in WELD 116. The selection and application of welding electrodes to specific weld joints are emphasized. Prerequisite: Concurrent enrollment in WELD 113, 114, 115, 116 or permission of instructor. (SCC)

WELD 121 - Intermediate Welding Math (1 cr)
This intermediate course continues with theory and practical application utilizing formulas to solve problems encountered in the fabrication industry. Concurrent enrollment in WELD 114, 115, 116, 117 or permission of instructor. (SCC)

WELD 123 - Intermediate Blueprint Reading (2 cr)
This course continues the concepts introduced in WELD 114. The interpretation of blueprints and corresponding welding symbols are emphasized. Prerequisite: Concurrent enrollment in WELD 124, 125, 126 or permission of instructor. (SCC)

WELD 124 - Advanced Shielded Metal Arc Welding Theory (3 cr)
This course continues the concepts introduced in WELD 116. Welding metallurgy, electrode classifications, and the uses of carbon and alloy steels are introduced. Prerequisite: Concurrent enrollment in WELD 123, 125, 126 or permission of instructor. (SCC)

WELD 125 - Advanced Shielded Metal Arc Welding Applications (1-7 cr)
This course provides advanced lab experience of the theory introduced in WELD 124. Welding practices used when working with carbon and alloy steels are emphasized. 1-7 credits prior learning credits may be applied totaling no more than seven credits. Prerequisite: Concurrent enrollment in WELD 123, 124, 126 or permission of instructor. (SCC)

WELD 126 - Intermediate Fabrication (3 cr)
This course offers practical lab experience using the skills acquired in the first quarter theory and lab courses. Layout and fabrication of a variety of welding projects are emphasized. Prerequisite: Concurrent enrollment in WELD 123, 124, 125 or permission of instructor. (SCC)

WELD 127 - Fabrication Machine Operation (2 cr)
Students learn the safe and proper way to set up and use various fabrication machines commonly found in a production setting. The machines used may include: Iron worker shear and punch, horizontal band saw, chop saw, drill press, grinders, tubing bender, ring roller. (SCC)

WELD 131 - Advanced Welding Math (1 cr)
This advanced course continues with theory and practical application utilizing formulas to solve problems encountered in the fabrication industry. Prerequisite: Concurrent enrollment in WELD 114, 115, 116, 117 or permission of instructor. (SCC)

WELD 133 - Advanced Blueprint Reading (2 cr)
This course continues the concepts introduced in WELD 114 and 123 with emphasis on the interpretation of complex working drawings applying design, layout and sequence of fabrication factors. Prerequisite: Concurrent enrollment in WELD 134, 135, 136 or permission of instructor. (SCC)

WELD 134 - Specialty Welding Theory (3 cr)
This course introduces metallurgy and other welding processes such as gas tungsten arc welding, gas metal arc welding and flux core arc welding. Prerequisite: Concurrent enrollment in WELD 133, 135, 136 or permission of instructor. (SCC)

WELD 135 - Specialty Welding Applications (1-7 cr)
This course offers practical applications in equipment setup and operational procedures used in a variety of welding processes. Safety considerations and X-ray quality welding are emphasized. Prerequisite: Concurrent enrollment in WELD 133, 134, 136 or permission of instructor. (SCC)

WELD 136 - Advanced Fabrication (3 cr)
This course offers practical applications in the layout and fabrication of metal projects utilizing the appropriate welding processes and fabrication equipment. Prerequisite: Concurrent enrollment in WELD 133, 134, 135 or permission of instructor. (SCC)

WELD 143 - Specialized Blueprint (2 cr)
Students will work from progressively more complex blueprints and build parts from them. (SCC)

WELD 144 - Specialized Theory (3 cr)
In depth study of the theory of specialty processes such as pulsed spray GMAW and aluminum GMAW. Prerequisite: Completion of 2nd and or 3rd quarter of Welding and Fabrication program. (SCC)

WELD 145 - Specialized Fabrication (3 cr)
Students will fabricate from blue prints finished beams and small columns. Prerequisite: Completion of 2nd and/or 3rd quarter of Welding and Fabrication program. (SCC)

WELD 146 - Specialized Welding (1-7 cr)
Students will weld on structural shapes and parts as they would in a shop environment. Prerequisite: Completion of 2nd and/or 3rd quarter of Welding and Fabrication program. (SCC)

WELD 151 - HEQ Welding I (3 cr)
In this course, students will learn proper safety and fundamentals of oxy-fuel cutting and shielded metal arc welding as it relates to the heavy equipment repair field. (SCC)

WELD 152 - HEQ Welding II (3 cr)
In this course, students will learn proper safety and fundamentals of gas metal arc welding, flux cored arc welding, and air carbon arc cutting as it relates to the heavy equipment repair field. (SCC)

WELD 153 - HPAT Welding (3 cr)
In this course, students will learn proper safety and fundamentals of oxy-fuel cutting and shielded metal arc welding as it relates to the hydraulic and pneumatic field. (SCC)

WELD 154 - CNC Welding (1 cr)
In this course, students will learn safety and fundamentals of shielded metal arc welding, gas metal arc welding, and gas tungsten arc welding as it relates to the machining field. (SCC)

WELD 155 - Auto Welding (1 cr)
In this course, students will learn proper safety and fundamentals of oxy-fuel cutting, gas metal arc welding, and gas tungsten arc welding as it relates to Automotive repair field. (SCC)

WELD 165 - Oxy-Acetylene Welding (1 cr)
Students are trained in the selection and use of oxy-acetylene welding and cutting equipment and supplies to perform basic maintenance, repair and construction jobs encountered in various mechanical fields. Prerequisite: Permission of instructor. (SCC)

WELD 168 - Arc Welding (1 cr)
Students are trained in the selection and use of arc welding equipment and supplies to perform basic maintenance, repair and construction jobs encountered in various mechanical fields. Prerequisite: Permission of instructor. (SCC)

WELD 266 - Cooperative Education Seminar (1-2 cr)
For course description, see Cooperative Education. (SCC)

WELD 267 - Cooperative Education Work Experience (1-18 cr)
For course description, see Cooperative Education. (SCC)

ZOOLOGY

ZOOL 121 - Invertebrate Zoology (5 cr)
Basic structure of animals, comprehensive survey of invertebrate phyla, anatomy and ecological relationships. Meets A.A. degree lab science requirement. Prerequisite: BIOL& 160. (SCC, SFCC)

ZOOL 122 - Vertebrate Zoology (5 cr)
Anatomy, physiology, evolution and ecology of fish, amphibians, reptiles, birds and mammals. Meets A.A. degree lab science requirement. Prerequisite: BIOL& 160. (SCC)