

# Courses Descriptions

## Distribution List Symbols

Symbol	Definition
HUM	Course meets distribution credit in Humanities.
SOCS	Course meets distribution credit in Social Science.
NSCI	Course meets distribution credit in Natural Sciences.
NSL	Course meets distribution credits in Natural Sciences as a lab course.
PERF	Course meets distribution credits as a performance based course.
PAC	Course meets distribution credits as physical education activity course.
ELEC	Course is considered an elective.
REEL	Course meets distribution credits as a restricted elective.
DIV	Course meets Diversity requirement.
&	Course is part of the Washington Community Colleges' Common Course Numbering system.
F	Course usually offered Fall Quarter.
W	Course usually offered Winter Quarter.
Sp	Course usually offered Spring Quarter.
S	Course usually offered Summer Quarter.

Accounting (ACCT).....	2
Adult Basic Education (ABE).....	3
Allied Health (AH).....	5
American Sign Language (ASL).....	6
Anthropology (ANTH).....	6
Art (ART).....	7
Astronomy (ASTR).....	11
Automotive Technology (AMTC).....	11
Biology (BIOL).....	12
Blueprint (BLPT).....	14
Business (BUS).....	14

Business Technology (BTEC).....	16
Chemical Dependency Studies (CDS).....	20
Chemistry (CHEM).....	22
Chinese (CHIN).....	23
College Success (COLL).....	23
Communication Studies (CMST).....	25
Computer Science (CS).....	26
Criminal Justice (CJ).....	27
Dance (DANCE).....	28
Diesel and Heavy Equipment Technology (DHET).....	30
Drafting (DRFT).....	31
Drama (DRMA).....	32
Early Childhood Education (ECED).....	34
Earth Science (ERSI).....	38
Economics (ECON).....	39
Education (EDUC).....	39
Engineering (ENGR).....	43
English (ENGL).....	45
English as a Second Language (ESL).....	49
Environmental Science (ENVS).....	49
Geography (GEOG).....	50
Geology (GEOL).....	50
Health (HLTH).....	51
High School Completion (HSC).....	52
History (HIST).....	54
Home and Family Life (HOFL).....	56
Human Development (HDEV).....	56
Humanities (HUM).....	60
Individual Certificate Program (ICP).....	61
Information Technology (IT).....	61
Intensive English as a Second Language (IESL).....	63
Library (LIBR).....	66
Machine Trades (MASP).....	67
Manufacturing (MFG).....	68
Math (MATH).....	70
Medical Assisting (MEDA).....	72
Music (MUSC).....	74
Nursing (NURS).....	79
Nutrition (NUTR).....	81
Oceanography (OCEA).....	82
Philosophy (PHIL).....	82
Physical Education (PHED).....	82
Physical Science (PHSC).....	87
Physics (PHYS).....	87
Political Science (POLS).....	88
Process Control Manufacturing (PMFG).....	89
Psychology (PSYC).....	90
Sociology (SOC).....	91
Spanish (SPAN).....	92
Technology Education (TECH).....	93
Welding (WELD).....	94

# Accounting (ACCT)

## **ACCT& 201 F,W 5.00 credits** **Principles of Accounting I**

Includes an introductory study of financial accounting and accounting theory. Includes an in-depth study of the accounting cycle for service organizations, provides an introduction to merchandising transactions, cash, marketable securities, receivables, and inventory. (Formerly known as ACCT 231)

Prerequisites: MATH 088 or TECH 088 with a grade of C or higher or instructor permission. No previous accounting courses are required.

## **ACCT& 202 W,Sp 5.00 credits** **Principles of Accounting II**

Studies the components of a simple corporate balance sheet including application to transactions in areas such as current liabilities, long-term assets, bonds, and stocks. Also introduces the statement of cash flows and financial statement analysis. Financial accounting theory is discussed and applied throughout the course. Transferable to four-year institutions.

Prerequisite: ACCT& 201 (was ACCT 231) with a grade of C or better and BUS 104 or MATH& 125. Concurrent requirements: Concurrent enrollment in MATH& 125 is acceptable

## **ACCT& 203 Sp 5.00 credits** **Principles of Accounting III**

Emphasis on accounting information as a planning and analysis tool to support management decision-making. Topics include manufacturing costs, job order costing, budgeting, break-even and cost-volume-profit analysis, relevant costs, capital investment decisions, and performance measurement.

Prerequisites: ACCT& 201 (was ACCT 231) with a grade of C or better and basic spreadsheet skills.

## **ACCT 101 F,W,Sp 5.00 credits** **Introduction to Accounting Concepts REEL**

Provides students with an introduction to the field of accounting. Topics include the accounting cycle, accounting for and presentation of assets, liabilities, and owner's equity.

Prerequisite: BUS 100, MATH 079 or TECH 079 or higher with a grade of C or better or instructor permission. Concurrent requirement: BUS 100 if not previously taken.

## **ACCT 135 5.00 credits** **Accounting For Non-Accountants**

Introduces the basic elements of financial and managerial accounting. Topics include an overview of the accounting cycle, financial statement preparation, elements of statement analysis, break-even analysis, CVP analysis, and an overview of budgeting.

Prerequisites: Math 079 or TECH 079 or higher with a grade of C or higher or instructor permission.

## **ACCT 150 Sp 5.00 credits** **Payroll Accounting and Business Tax Reporting REEL**

Gives students experience in payroll accounting and business tax reporting. Topics include: payroll processing, payroll tax return preparation, and preparation of excise tax returns.

Prerequisite: MATH 088 or TECH 088 and ACCT 101 or instructor permission.

## **ACCT 241 F 5.00 credits** **Intro to Quickbooks REEL**

Provides experience with a multi-function electronic accounting system. Covers entering business transactions in the general ledger and subsidiary accounts such as payroll, accounts receivable, accounts payable, inventory, and fixed assets. Presents common accounting problems associated with the electronic accounting process. This course can be used as a stand-alone course for experienced professionals.

Prerequisites: ACCT 101 or ACCT& 201 and CS 110 or CS 111, or instructor permission.

## **ACCT 244 F 5.00 credits** **Individual Income Taxation REEL**

Explores the fundamental concepts of federal income taxation as it relates to individuals with some attention to sole proprietorships. Topics include federal tax structure, income inclusions and exclusions, deductions, and credits. The course also includes practice in preparing individual returns and related schedules. Course is required for the Accounting Technician AAS degree.

Prerequisite: MATH 078/079 or TECH 078/079.

## **ACCT 275 Sp 5.00 credits** **Accounting Tech Capstone REEL**

Prepares students for the workplace by providing a review and extension of skills acquired in previous courses. Topics include accounting cycle review, adjusting entries, problems in QuickBooks, payroll accounting, and internal control principles.

Prerequisites: ACCT 150, ACCT& 201 and ACCT 241 or instructor permission.

## **ACCT 288 1.00-15.00 credits** **Cooperative Work Experience**

Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.

Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**ACCT 299** **1.00-10.00 credits**  
**Independent Study**

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisites: By instructor permission only.

## Adult Basic Education (ABE)

**ABE 40** **S,F,W,Sp** **1.00-20.00 credits**  
**ABE HS 21+ Electives**

Strengthen basic academic skills in order to enhance their personal, social, and workplace environments in an ABE Electives course.

Prerequisites: CASAS Appraisal Exam, CASAS Appraisal score of 246 to 255, or instructor permission.

**ABE 41** **S,F,W,Sp** **1.00-20.00 credits**  
**ABE HS 21+ English**

Strengthen basic academic skills in order to enhance their personal, social, and workplace environments in a High Adult Secondary Education English reading and writing course.

Prerequisites: CASAS Appraisal Exam, CASAS Appraisal score of 246 to 255, or instructor permission.

**ABE 42** **S,F,W,Sp** **1.00-20.00 credits**  
**ABE HS 21+ Math**

Strengthen basic academic skills in order to enhance their personal, social, and workplace environments in a High Adult Secondary Education math course.

Prerequisites: CASAS Appraisal Exam, CASAS Appraisal score of 246 to 255, or instructor permission.

**ABE 43** **S,F,W,Sp** **1.00-20.00 credits**  
**ABE HS 21+ Science and Lab Science**

Strengthen basic academic skills in order to enhance their personal, social, and workplace environments in a High Adult Secondary Education English reading and writing course contextualized in science.

Prerequisites: CASAS Appraisal Exam, CASAS Appraisal score of 246 to 255, or instructor permission.

**ABE 44** **S,F,W,Sp** **1.00-20.00 credits**  
**ABE HS 21+ US History and Government**

Strengthen basic academic skills in order to enhance their personal, social, and workplace environments in an ABE high adult secondary US History and Government education course. Focuses on the causes and effects of social, cultural, political, intellectual and economic change over the years in the United States. Examines the foundation of US government: key political ideas, theories, processes, and institutions.

Prerequisites: CASAS Appraisal Exam, CASAS Appraisal score of 246 to 255, or instructor permission.

**ABE 45** **S,F,W,Sp** **1.00-20.00 credits**  
**ABE HS 21+ Washington State History**

Strengthen English communication skills in order to enhance their personal, social, and workplace environments in a high adult secondary education ABE Washington State history course. Provides a social, political, economic history of the Pacific Northwest with particular emphasis on the State of Washington, including Native American history and gender/ethnic history.

Prerequisites: CASAS Appraisal Exam, CASAS Appraisal score of 246 to 255, or instructor permission.

**ABE 46** **S,F,W,Sp** **1.00-20.00 credits**  
**ABE HS 21+ Current World History**

Strengthen basic academic skills in order to enhance their personal, social, and workplace environments in an ABE Contemporary History course. Focuses on current world events, issues and problems. Highlights recent historical events and examines the causes and effects on geopolitics, environments, and population.

Prerequisites: CASAS Appraisal Exam, CASAS Appraisal score of 246 to 255, or instructor permission.

**ABE 47** **S,F,W,Sp** **1.00-20.00 credits**  
**ABE HS 21+ Occupational**

Strengthen a student's communication, technology, and/or interpersonal skills in order to enhance their personal, social, and workplace environments in an ABE Occupational Education course. The course reflects knowledge gained through prior life experience, occupational achievement, or demonstrable skill and can be quantified by writing, display and evidence collection.

Prerequisites: CASAS Appraisal Exam, CASAS Appraisal score of 246 to 255, or instructor permission.

**ABE 48** **S,F,W,Sp** **1.00-20.00 credits**  
**ABE HS 21+ Health and P.E.**

Strengthen basic academic skills while focusing on health, nutrition, and fitness in order to enhance their personal, social, and workplace environments in an ABE Health and Physical Education course. Students will gain an understanding of the effects nutrition, exercise and environmental factors have on the body and how to set personal goals to improve their overall health.

Prerequisites: CASAS Appraisal Exam, CASAS Appraisal score of 246 to 255, or instructor permission.

**ABE 49** **S,F,W,Sp** **1.00-20.00 credits**  
**ABE HS 21+ Fine Arts**

Strengthen basic academic skills while focusing on artistic understanding and appreciation in order to enhance the personal, social, and workplace environments of students in an ABE Fine Arts course. Students will gain a deeper understanding of the arts and how to evaluate the impressions gained by exposure to different forms of media.

Prerequisites: CASAS Appraisal Exam, CASAS Appraisal score of 246 to 255, or instructor permission.



**ABE 92**                    **S,F,W,Sp**                    **1.00-20.00 credits**  
**Math Level E**  
 Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high adult secondary education math course.  
 Prerequisites: CASAS appraisal exam and CASAS appraisal score of 246 and higher.

**ABE 93**                    **S,F,W,Sp**                    **1.00-20.00 credits**  
**Integrated Level E**  
 Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high adult secondary education integrated course (integrating reading, writing, math, and technology).  
 Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 246 and higher.

**ABE 94**                    **S,F,W,Sp**                    **1.00-20.00 credits**  
**I-Best Academic Support Level E**  
 A high adult secondary education level ABE course for students who are currently working or preparing to work in a specific job area and who are enrolled in an I-BEST program. The course integrates math, reading, writing, listening and speaking skills with the linguistic requirements of the job. The content of this course varies each time it is offered. It may include English language skills for specific content areas such as certification for childcare workers, English language skills for Health Services, etc.  
 Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236 and higher.

## Allied Health (AH)

**AH 100**                    **F,W**                    **1.00 credit**  
**Bloodborne Pathogens & Infection Control**    **REEL**  
 Examines bloodborne illnesses: etiology, epidemiology, clinical manifestations, treatment, transmission, testing, infection control, legal, ethical, psychosocial and counselling issues. Successful completion (grade of C or above) fulfills Washington state Department of Licensing requirement for license renewal for persons governed by chapter 18.130.RCW); including 7 hours of OSHA-required HIV/AIDS education.  
 Prerequisites: None

**AH 114**                    **W,Sp**                    **2.00 credits**  
**Healthcare Communication Skills**                    **REEL**  
 Provides introductory content on the communication process in health care settings. Introduces principles of communication, therapeutic communication skills, barriers to effective communication, and principles of verbal and written reporting in health care. Explores communication with clients who have complex needs, conflict resolution, team work, health care informatics, and cultural competency in health care. Techniques for acquiring employment will be discussed, and internet websites will be evaluated for credibility.  
 Prerequisite: ENGL 099 with a grade of C or higher (or ENGL& 101 placement), or instructor permission.

**AH 166**                    **1.00 credit**  
**Mental Health First Aid for Adults**                    **REEL**  
 Prepares participants to assist an individual who may be developing a mental health problem or experiencing a mental health crisis. Includes risk factors and warning signs of mental health problems. Provides information on depression, anxiety, trauma, psychosis, and addiction. Presents a 5-step action plan for assisting an individual with a mental health problem or crisis. Discusses identification and utilization of resources. Content is based on the National Council for Behavioral Mental Health First Aid USA training program. Upon successful completion of the course, certification in Mental Health First Aid is awarded.  
 Prerequisites: None

**AH 167**                    **1.00 credit**  
**Mental Health First Aid for Youth**                    **REEL**  
 Prepares participants to assist an individual who may be developing a mental health problem or experiencing a mental health crisis. Includes risk factors and warning signs of mental health problems. Provides information on depression, anxiety, trauma, psychosis, and addiction. Presents a 5-step action plan for assisting an individual with a mental health problem or crisis. Discusses identification and utilization of resources. Content is based on the National Council for Behavioral Mental Health First Aid USA training program. Upon successful completion of the course, certification in Mental Health First Aid is awarded.  
 Prerequisites: None

**AH 288**                    **1.00-5.00 credits**  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission  
 Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**AH 299**                    **1.00-10.00 credits**  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisites: By instructor permission only.

## American Sign Language (ASL)

### ASL& 121 F 5.00 credits American Sign Language I HUM

Introduces the basics of American Sign Language (ASL). Designed for students who have little or no previous knowledge of ASL. Readiness for learning will be approached via visual-gestural communication techniques, visual discrimination, and visual memory exercises. ASL questions, commands, and other simple sentence structures are introduced to develop rudimentary conversational skills in ASL. Information about the Deaf Community and Deaf Culture will be introduced.

Prerequisites: None

### ASL& 122 W 5.00 credits American Sign Language II HUM

Continues development of American Sign Language (ASL) skills, with primary focus on refining the use of basic ASL sentence types. Pronominalization, classifiers, spatial referencing, pluralization, and temporal and distributional aspects are introduced. Students learn routine communicative functions of the language: asking, requesting, providing clarification, and giving and asking for directions. Information about the Deaf Community and Deaf Culture is included.

Prerequisites: ASL& 121 with a grade of C or better.

### ASL& 123 Sp 5.00 credits American Sign Language III:DIV HUM, DIV

Builds on skills learned in American Sign Language (ASL) II, adding more complex ASL grammatical features and vocabulary, short stories, narratives, and dialogues. Includes description of general surroundings, appropriate sequencing, temporal aspects and conditionals. Information about the Deaf Community and Deaf Culture will be included.

Prerequisites: ASL& 122 with a grade of C or better.

### ASL 288 1.00-15.00 credits Cooperative Work Experience

Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.

Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

### ASL 299 1.00-10.00 credits Independent Study

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisites: By instructor permission only.

## Anthropology (ANTH)

### ANTH& 100 F 5.00 credits Survey Of Anthropology: DIV DIV, SOCS

Provides a holistic and comparative study of human life through a survey of four subfields (archaeology, biological/physical anthropology, cultural anthropology, and linguistic anthropology). Acquaints students with the history, methods, and major concepts of the field and give an overview of the range of potential social problems that anthropologists are particularly well-positioned to help solve.

Prerequisites: None

### ANTH& 204 Sp 5.00 credits Archaeology SOCS

Provides an introduction to the study of human prehistory as revealed by material remains. Explores the theories and techniques of archaeological investigation (e.g., survey, excavation, and artifact analysis). Examines the human past from the emergence of our species to the development of social complexity, including a survey of early civilizations from various regions around the world.

Prerequisites: None. Concurrent requirements: None

### ANTH& 205 F,Sp 5.00 credits Biological Anthropology NSCI

Examines the essential facts of human biological evolution by providing a thorough understanding of the concept of evolution and applying it to the particular details of the evolution of human populations and the fossil record. Attention will also be given to the methodology of contemporary research and its application to the study of primate and human evolution.

Prerequisite: None

### ANTH& 206 W 5.00 credits Cultural Anthropology: DIV SOCS, DIV

Examines the impact that the concept of culture has upon the anthropological understanding of humanity. Attention will be given to a thorough understanding of the concept of culture as a source of human diversity and its relationship to historical, economic, political, social, linguistic and religious development.

Prerequisite: None

### ANTH 288 1.00-17.00 credits Cooperative Work Experience

Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.

Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**ANTH 299** **1.00-10.00 credits**  
**Independent Study**

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisites: By instructor permission only.

## Art (ART)

**ART& 100** **S,F,W,Sp** **5.00 credits**  
**Art Appreciation: DIV** **HUM, DIV**

Introduces basic art vocabulary and concepts, and provides a basis for understanding and appreciating art from a variety of cultures and time periods through visual presentations, demonstrations, discussion, and field trips. ART& 100 (was Art 110) is a transferable course. It fulfills the requirements of the AA-DTA Humanities distribution list.

Prerequisite: none

**ART 101** **3.00 credits**  
**Beginning Drawing** **HUM, PERF**

Introduces basic drawing techniques with a variety of media. Hands-on experience in the effective use of composition, line, shape, surface quality, and perspective. Intended for the beginning student. Focuses on learning to draw what is actually seen, i.e. drawing from the 'right' brain.

Prerequisite: None

**ART 102** **3.00 credits**  
**Intermediate Drawing** **HUM, PERF**

Continues the skills and concepts from ART 101 and applies them to a broader range of media and subject matter. Part of the term is devoted to introductory figure drawing working from a model.

Prerequisite: ART 101 or instructor permission.

**ART 103** **3.00 credits**  
**Advanced Drawing** **HUM, PERF**

Expands on the experiences from ART 101 and 102 and adds more in-depth understanding of the materials and concepts in visual communication. This is a project oriented class.

Prerequisite: ART 102 or instructor permission.

**ART 106** **F,W,Sp** **5.00 credits**  
**Two-Dimensional Design** **HUM, PERF**

Covers basic principles of visual organization and design through the investigation of two-dimensional space using black and white media. Explores basic two-dimensional concepts, such as figure/ground, grouping principles, grid, symmetry, rhythm, and pattern. Introduces vocabulary for analyzing, organizing, and communicating two-dimensional visual principles.

Prerequisites: None

**ART 107** **F** **5.00 credits**  
**Color Theory And Design** **HUM, PERF**

Presents color theory and application of color in two-dimensional design. Emphasizes color mixing, color relationships and visual impact, as well as psychological and symbolic uses of color. Successful completion of ART 106 recommended.

Prerequisites: None

**ART 108** **5.00 credits**  
**Three-Dimensional Design** **HUM, PERF**

Presents basic concepts in three-dimensional design through a series of assignments dealing with volume, space and scale, using a variety of media and techniques. Investigates formal and functional issues while developing creative problem-solving in the context of three-dimensional design.

Prerequisites: None

**ART 111** **S,F,W,Sp** **3.00 credits**  
**Beginning Painting** **HUM, PERF**

Introduces the use of oil and acrylic painting media and the study of traditional and contemporary painting concepts and techniques.

Prerequisite: None

**ART 112** **S,F,W,Sp** **3.00 credits**  
**Intermediate Painting** **PERF, HUM**

Presents more in-depth exploration of painting materials, techniques, and subject matter.

Prerequisite: ART 111 or instructor permission.

**ART 113** **S,F,W,Sp** **3.00 credits**  
**Advanced Painting** **HUM, PERF**

Offers advanced painting theory and practice and the development of individual expression in subject matter and composition.

Prerequisite: ART 112 or instructor permission.

**ART 130** **F,W,Sp** **4.00 credits**  
**Intro To Graphic Design** **HUM**

Provides an overview of Adobe InDesign covering the Mac operating system, document design, pagination, page layout, typography, copy fitting and color as they relate to both print and web communications. Includes file management, copyright and ethical issues, electronic color theory, graphic formats, image and device resolution. Basic computing skills recommended.

Prerequisites: None

**ART 134** **1.00-3.00 credits**  
**Arts Magazine Publication I** **HUM**  
 Instructs and guides students through the first stage in an annual publication process for creating and editing The Salal Review (Lower Columbia College's literary and visual arts magazine). Students in this stage of the publication process work primarily with literary art submissions: marketing for collecting, critiquing, selecting, editing, and creating design templates for poems, prose, short stories, comics, etc. to be displayed in the annual printed magazine. Students may take a total of 18 credits in six classes (ENGL 124/ART 134, ENGL 125/ART 135, ENGL 126/ART 136, ENGL 224/ART 234, ENGL 225/ART 235, ENGL 226/ART 236) to complete two years of publication work. Credit hours are dependent upon student work involvement in the publication process.  
 Prerequisites: None

**ART 135** **1.00-3.00 credits**  
**Arts Magazine Publication II** **HUM**  
 Instructs and guides students through the second in an annual publication process for creating and editing The Salal Review (Lower Columbia College's literary and visual arts magazine). Students in this stage of the publication process work primarily with visual art submissions: marketing for, collecting, critiquing, selecting, editing, and creating design templates for drawings, paintings, sculptures, digital art, photographs, etc. to be displayed in the annual printed magazine. Students also continue editing and designing pages for displaying selected literary art while creating coherent design templates for integrating visual art. Students may take a total of 18 credits in six classes (ENGL 124/ART 134, ENGL 125/ART 135, ENGL 126/ART 136, ENGL 224/ART 234, ENGL 225/ART 235, ENGL 226/ART 236) to complete two years of publication work. Credit hours are dependent upon student work involvement in the publication process.  
 Prerequisites: None

**ART 136** **1.00-3.00 credits**  
**Arts Magazine Publication III** **HUM**  
 Instructs and guides students through the third and final stage in an annual publication process for creating and editing The Salal Review (Lower Columbia College's literary and visual arts magazine). Students in this stage of the publication process finalize the editing and designing process for the printed magazine, focusing especially on the creation of cover pages, the table of contents, and other finishing attributes, along with the creation of digital, shareable copy. Students organize and facilitate a community launch party event, collaborate with professionals in the printing industry to ensure quality and timely delivery of the magazine order, and execute a distribution plan for sharing the magazine with a larger audience. Students may take a total of 18 credits in six classes (ENGL 124/ART 134, ENGL 125/ART 135, ENGL 126/ART 136, ENGL 224/ART 234, ENGL 225/ART 235, ENGL 226/ART 236) to complete two years of publication work. Credit hours are dependent upon student work involvement in the publication process.  
 Prerequisites: None

**ART 151** **F,W** **5.00 credits**  
**Introduction To Digital Photography** **HUM, PERF**  
 Introduces the fundamentals of digital photography; camera and lens operation, exposure, composition, and inkjet printing. Develops skills related to digital editing by using software to correct, and enhance photographs. Examines artists, and photographic techniques that influence the field of fine art photography. Students must provide their own manually adjustable digital camera.  
 Prerequisites: None

**ART 152** **W** **5.00 credits**  
**Intermediate Digital Photography** **HUM, PERF**  
 Examines advanced practices of digital photography; camera and lens operation, exposure, composition, and inkjet printing. Further develops digital editing skills by using software to correct, and enhance photographs. Examines artists, and photographic techniques that influence the field of fine art photography. Students must provide their own manually adjustable digital camera.  
 Prerequisite: ART 151 or instructor permission.



**ART 154** **5.00 credits**  
**Beginning Analog Film Photography HUM, PERF**  
 Introduces the fundamentals of analog (film) photography in the creation of fine-art black and white prints. Explores the fundamentals of camera and lens operation, exposure, creative controls, and composition to design photographs. Includes the processing of black and white film to make custom photographic prints in a darkroom. The history of photography, including great works of photography that have influenced the field, will be discussed. Students must provide their own analog (film) camera with manually adjustable focus, exposure, aperture, and shutter speed. This is a beginning photography course that serves as an art elective. It fulfills the requirements of the AA-DTA Humanities distribution list. It is designed for students without previous photography or art background, and is one of two entry level courses in a series of photography courses offered.  
 Prerequisite: None

**ART 157** **3.00 credits**  
**Intermediate Photography Documentary HUM, PERF**  
 Provides both digital and analog students, who have completed ART 151 or 155 the opportunity to further advance their camera, printing, and editing critiquing skills. Learn how to utilize ISO adjustments with both digital and film cameras to maximize, exposure control, and use flash as it relates to different applications on location in order to visually document people and events. Learn how to create effective layouts for series and photo essays. Learn about the ethics and legal aspects related to photography.  
 Prerequisite: ART 154 or 155 or instructor permission.

**ART 158** **3.00 credits**  
**Advanced Photo Digital And Analog PERF, HUM**  
 Provides students with a continuation of photographic exploration, with an emphasis on fine art applications, some of which may blend both traditional and new technologies. Students will continue to fine tune their technical skills as well as develop their own visual style.  
 Prerequisite: ART 156 or ART 157 or instructor permission.

**ART 162** **F,W,Sp** **4.00 credits**  
**Digital Fundamentals for Art and Design HUM**  
 Introduces basic technical skills, key concepts and software training for creation of raster images and vector graphics. Presents creation, control and manipulation of raster images and vector graphics for print, web and motion media. Covers tools, techniques, devices, electronic color theory, graphic formats, image and device resolution, layering and combining graphics. Basic computing skills necessary.  
 Prerequisites: None

**ART 206** **F** **5.00 credits**  
**Arts of The Americas: DIV HUM, DIV**  
 A comparative investigation into the development of artistic themes and styles within the cultures of North, Central, and South America past and present. Study will include an exploration into the migration and settlement

of indigenous peoples of the Americas as represented by their art forms, the impact of European colonization on art and culture, and a look at cultural and historical interpretations addressed by contemporary artists.  
 Prerequisite: None

**ART 207** **5.00 credits**  
**Arts of the World: DIV HUM, DIV**  
 A comparative investigation into the development of artistic themes and styles in Asia, Africa, and Oceania past and present. Study will include an exploration into the components of society, the development of belief systems, and the formation of worldviews as represented by art and architecture. In addition, emphasis will be placed on cultural and historical interpretations that inform the ideology and art of contemporary artists in terms of contemporary cultural identities and the challenges they pose.  
 Prerequisite: None

**ART 208** **5.00 credits**  
**Arts of the Pacific Northwest: DIV HUM, DIV**  
 A comparative investigation into the development of artistic themes and styles within the cultures of the Pacific Northwest past and present. Study will include an exploration into the migration and settlement of indigenous peoples of the Pacific Northwest as represented by their art forms, the impact of European colonization on art and culture, and a look at cultural and historical interpretations addressed by contemporary artists.  
 Prerequisite: None

**ART 214** **W,Sp** **4.00 credits**  
**Typography HUM**  
 Introduces typographic history via projects that emphasize letter forms, use of the grid, developing typographic hierarchies and syntax, and combining type and image. Focuses on identifying and applying typographic details in order to communicate effectively. Basic design and computer skills or completion of ART 130 Intro to Graphic Design recommended.

**ART 215** **W** **4.00 credits**  
**Portfolio Website Design**  
 Explores website development tools, skills, design and website portfolio standards for artists, designers, and creatives. Introduces web file formats, website production steps, publishing steps, hosting and domain options. Culminates in a portfolio website documenting art/design/music/creative work completed thus far along with an artist statement, bio, and resume to share professionally. Basic knowledge of raster and vector image creation or completion of ART 162 Digital Fundamentals for Art and Design recommended.  
 Prerequisites: None

**ART 224** **W,Sp** **5.00 credits**  
**History of Graphic Design: DIV** **HUM, DIV**  
 Investigates graphic design history via a comprehensive look at people, places and events that shaped print and web design. Examine historical and cultural factors, technological innovations, movements and designers in relation to graphic design.

**ART 226** **F** **5.00 credits**  
**History of Western Art I** **HUM**  
 History of Western Art is an investigation into the development of art from before history through the Roman Empire, approximately 35,000 BCE to 500 CE. This study includes a conceptual look at the emergence of the creative spark and why art and architecture exists. A comprehensive look at art from the prehistoric natural world, through the emergence of civilization and social organization in ancient cultures, to the glory of Greece and Rome, art continues to interpret culture and to shape contemporary lives.  
 Prerequisite: None

**ART 227** **W** **5.00 credits**  
**History of Western Art II: DIV** **HUM, DIV**  
 History of Western Art is an investigation into the development of art from early medieval through Renaissance Europe, approximately 500 CE to 1600 CE. This study includes a comprehensive look at art and architecture as it reflects changing world views as art continues to interpret culture and to shape contemporary lives.  
 Prerequisite: None

**ART 228** **Sp** **5.00 credits**  
**History of Western Art III: DIV** **HUM, DIV**  
 Investigates the development of art from 17th century Europe, through its introduction to America, and into 21st Century Europe and the United States. This study includes a critical evaluation of interpretations by artists through their art to address issues of difference, power, power, and discrimination. Art continues to reflect culture and to shape contemporary lives.  
 Prerequisite: None

**ART 234** **1.00-3.00 credits**  
**Arts Magazine Publication IV** **HUM**  
 Instructs and guides students through the first stage of a second year of an annual publication process for creating and editing The Salal Review (Lower Columbia College's literary and visual arts magazine). Second year students will take on leadership and mentoring roles as they market, collect, critique, select, edit, and create design templates for literary art submissions such as poems, prose, short stories, comics, etc. to be displayed in the annual printed magazine. Students may take a total of 18 credits in six classes (ENGL 124/ART 134, ENGL 125/ART 135, ENGL 126/ART 136, ENGL 224/ART 234, ENGL 225/ART 235, ENGL 226/ART 236) to complete two years of publication work. Variable credit hours are dependent upon student work involvement in the publication process.  
 Prerequisites: ART 134 or ENGL 124

**ART 235** **1.00-3.00 credits**  
**Arts Magazine Publication V** **HUM**  
 Instructs and guides students through the second stage of a second year of an annual publication process for creating and editing The Salal Review (Lower Columbia College's literary and visual arts magazine). Second year students will take on leadership and mentoring roles as they market, collect, critique, select, edit, and create design templates for visual art submissions such as drawings, paintings, sculptures, digital art, photographs, etc. to be displayed in the annual printed magazine. Students also continue editing and designing pages for displaying selected literary art while creating coherent design templates for integrating visual art. Students may take a total of 18 credits in six classes (ENGL 124/ART 134, ENGL 125/ART 135, ENGL 126/ART 136, ENGL 224/ART 234, ENGL 225/ART 235, ENGL 226/ART 236) to complete two years of publication work. Variable credit hours are dependent upon student work involvement in the publication process.  
 Prerequisites: ART 135 or ENGL 125

**ART 236** **1.00-3.00 credits**  
**Arts Magazine Publication VI** **HUM**  
 Instructs and guides students through the third and final stage of a second year of an annual publication process for creating and editing The Salal Review (Lower Columbia College's literary and visual arts magazine). Second year students will take on leadership and mentoring roles as they finalize the editing and designing process for the printed magazine, focusing especially on the creation of cover pages, the table of contents, and other finishing attributes, along with the creation of a digital, shareable copy. Students organize and facilitate a community launch party event, collaborate with professionals in the printing industry to ensure quality and timely delivery of the magazine order, and execute a distribution plan for sharing the magazine with a larger audience. Students may take a total of 18 credits in six classes (ENGL 124/ART 134, ENGL 125/ART 135, ENGL 126/ART 136, ENGL 224/ART 234, ENGL 225/ART 235, ENGL 226/ART 236) to complete two years of publication work. Variable credit hours are dependent upon student work involvement in the publication process.  
 Prerequisites: ART 136 or ENGL 126

**ART 241** **3.00 credits**  
**Beginning Ceramic Art, Pottery** **HUM, PERF**  
 Introduces the study of ceramic materials and techniques including hand construction and wheel throwing.  
 Prerequisite: None

**ART 242** **3.00 credits**  
**Intermediate Ceramic Art Pottery** **PERF, HUM**  
 Involves more advanced techniques of hand construction and wheel throwing. Beginning glaze formation and kiln-firing processes are included.  
 Prerequisite: ART 241 with a grade of C or better.

**ART 243**                    **S,F,W,Sp**                    **3.00 credits**  
**Advanced Ceramic Art, Pottery**                    **PERF, HUM**  
 Continues wheel and hand forming techniques with emphasis on aesthetics, including decoration and glazing.  
 Prerequisite: ART 242 with a grade of C or better.

**ART 288**                    **1.00-15.00 credits**  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**ART 290**                    **F,W,Sp**                    **1.00-3.00 credits**  
**Art Studio Lab-Ceramics**  
 Provides lab opportunity in ceramics for students who have completed ART 241, 242, 243.  
 Prerequisite: Instructor permission

**ART 295**                    **F,W,Sp**                    **1.00-3.00 credits**  
**Art Lab - Photography**  
 Provides lab opportunity in photography for students who have completed ART 158. Students will develop a description/contract of what they would like to focus their study on.  
 Prerequisite: ART 158 or instructor permission.

**ART 299**                    **1.00-10.00 credits**  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisites: By instructor permission only.

## Astronomy (ASTR)

**ASTR& 101**                    **F,W,Sp**                    **5.00 credits**  
**Intro to Astronomy**                    **NSL**  
 Provides for student investigation of information gathered on distant objects by telescope, spectrometer, radio, satellites, and other instruments. Students pursue both the knowledge and processes for acquiring knowledge of the moon, sun, planets, comets, and meteors of the solar system, distant stars, nebulae, clusters, and galaxies, and their theoretical evolution.  
 Prerequisite: None.

**ASTR 288**                    **1.00-15.00 credits**  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**ASTR 299**                    **1.00-10.00 credits**  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisites: By instructor permission only.

## Automotive Technology (AMTC)

**AMTC 100**                    **S,W**                    **5.00 credits**  
**Essentials of Mechanics**                    **REEL**  
 Develops beginning mechanical skills and knowledge essential to successful completion of the automotive and/or diesel technology program. Includes shop safety, fasteners, measurements, cutting tools, lifting, tool usage, shop orientation, manuals (including computer retrieval systems), bearings and seals, and special emphasis on preventive/predictive maintenance. This is an introductory course for beginning students of Automotive or Diesel Technology. Course can be waived if student has completed principles of technology and auto program in high school.

**AMTC 104**                    **F**                    **15.00 credits**  
**Automotive Electrical Systems**                    **REEL**  
 Introduces the theory of electricity fundamentals including solid state technology. Discusses electrical safety. Includes solving and proving Ohm's Law in series, parallel, and series-parallel circuits. Includes automotive wiring and circuits, including how to read and understand wiring diagrams to diagnose an electrical malfunction. Covers circuit tracing and wiring repair techniques. Presents diagnosis and repair of low voltage systems (12V), including batteries, starting systems, charging systems, instrumentation and warning devices, lighting systems, power accessories, and computer operation and circuit analysis. Discusses high voltage energy and electronic ignition systems.  
 Prerequisites: None

**AMTC 105**                      **S,Sp**                      **5.00 credits**  
**Vehicle Climate Control**                      **REEL**  
 Introduces the theory of operation, design, diagnosis and repair of both manual and automatic heating, ventilation and air conditioning systems (HVAC) used in automobiles, trucks and heavy equipment. Emphasizes component identifications, performance testing, recovering, evacuation and recharging. Covers materials necessary to pass ASE (A7) test. Course is cross listed with DHET 105.  
 Prerequisite: AMTC 104 or DHET 104 or Instructor Permission

**AMTC 114**                      **W**                      **15.00 credits**  
**Automotive Chassis**                      **REEL**  
 Introduces the theory of hydraulics, fundamentals of manual, power, drum, and disc brake systems. Covers theory, diagnosis, and repairing anti-lock brakes and traction control systems. Include scan tool diagnosis as well as functional and visual tests. Prepares the student to perform all aspects of automotive type suspension and alignment work, including powered and non-powered steering systems, inspection, diagnosis, adjustment, and repair of front and rear suspension systems, and related components such as tires and wheels. Use of four-wheel alignment equipment is an integral part of this course.  
 Prerequisites: None

**AMTC 124**                      **Sp**                      **15.00 credits**  
**Automotive Engines**                      **REEL**  
 Provides introductory content for the student with little or no experience with gasoline engines. Covers theory of operation, performance factors, and routine diagnosis and maintenance of spark ignition engines. Includes removing, inspecting, cleaning, measuring, machining, re-assembling, re-installing, and testing gasoline engines. Includes rebuilding a gasoline engine.  
 Prerequisites: None

**AMTC 206**                      **W**                      **15.00 credits**  
**Fuels and Emissions**                      **REEL**  
 Introduces the theory of operation, design, diagnosis and repair of automotive fuel systems. Includes injection, storage, and delivery systems. Covers materials necessary to pass ASE (A8) certification.  
 Prerequisite: AMTC 104 or Instructor Permission

**AMTC 207**                      **Sp**                      **15.00 credits**  
**Computer Engine Controls**                      **REEL**  
 Introduces advanced theory, operation, diagnosis and repair of automotive fuel systems. Discusses injection, storage, and delivery systems. Covers materials necessary to pass ASE (A8 and L1) certification.  
 Prerequisite: AMTC 104 or Instructor Permission

**AMTC 214**                      **F**                      **15.00 credits**  
**Automotive Drivetrains**                      **REEL**  
 Introduces hydraulic principle of pressure and force multiplication, operation, diagnosis and repair of automotive automatic transmissions and transaxles. Presents the theory of operation, diagnosis and repair of clutches, manual transmission/transaxles, drivelines, drive axles and transfer cases. Covers all of the mechanical components used to transfer power from the engine to the drive wheels - both 2 and 4 wheel drive.  
 Prerequisite: AMTC 104 or Instructor Permission

**AMTC 288**                      **1.00-15.00 credits**  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**AMTC 299**                      **1.00-10.00 credits**  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisites: By instructor permission only.

## Biology (BIOL)

**BIOL& 100**                      **F,W,Sp**                      **5.00 credits**  
**Survey of Biology**                      **NSL**  
 Examines major concepts in biology -- the science of life -- and the nature of science itself and includes survey of fundamental life processes by which organisms live, grow, reproduce, and interact with their environment. This course is recommended for students interested in a brief overview of biology. Laboratory is included.  
 Prerequisite: None

**BIOL& 160**                      **S,F,W,Sp**                      **5.00 credits**  
**General Biology with Lab**                      **NSL**  
 Introduces cell biology including the chemistry of life, the structure, reproduction, and metabolism of cells, genetics, and evolutionary biology. Includes inquiry based lab.  
 Prerequisite course for BIOL& 241 (Human Anatomy and Physiology I) and BIOL& 260 (Microbiology). A grade of C or higher is required in order to advance to BIOL& 241 or BIOL& 260. Prerequisites: None

**BIOL& 221**                      **F**                      **5.00 credits**  
**Majors Ecology/Evolution: w/Lab**                      **NSL**  
 Examines evolution, Mendelian genetics, biodiversity, and ecology. First of a three course series. Laboratory included.  
 Prerequisites: Prior completion or concurrent enrollment in CHEM& 161 or CHEM& 121 or instructor permission.

**BIOL& 222**                      **W**                      **5.00 credits**  
**Majors Cell/Molecular: w/Lab**                      **NSL**  
 Examines structure and function of biomolecules, cell structure and function, metabolism and energetics, current applications of biotechnology and molecular biology. Second of a three course series. Laboratory included.

Prerequisite: BIOL& 221 with 2.0 or better.

**BIOL& 223**                      **Sp**                      **5.00 credits**  
**Majors Organismal Phys: w/Lab**                      **NSL**  
 Examines organismal (animal and plant) development and physiology. Final course of a three course series. Laboratory included.

Prerequisite: BIOL& 222 with 2.0 or better.

**BIOL& 241**                      **S,F,W,Sp**                      **5.00 credits**  
**Human A & P 1**                      **NSL**  
 Provides a study of structure and function of the human body. Topics include the cell, tissues, skeletal system, articulations, muscular system, and nervous system. This is the first of a two-course sequence. This course may not be transferable unless the entire sequence (BIOL& 241 and 242) is taken at LCC.

Prerequisite: BIOL& 160, BIOL& 260 or BIOL& 222 with a grade of C or above. Prerequisite waiver may be granted with appropriate documentation to the instructor.

**BIOL& 242**                      **S,F,W,Sp**                      **5.00 credits**  
**Human A & P 2**                      **NSL**  
 Continues the study of structure and function of the human body. Topics include endocrine, circulatory, lymphatic, respiratory, digestive, urinary, and reproductive systems; and fluid and electrolyte balance. This is the second part of a two-course sequence. This course may not be transferable unless the entire sequence (BIOL& 241 and 242) is taken at LCC. Laboratory is included.

Prerequisites: BIOL& 241 with a C or better. Prerequisite waiver may be granted with appropriate documentation to the instructor.

**BIOL& 260**                      **S,F,W,Sp**                      **5.00 credits**  
**Microbiology**                      **NSL**  
 Introduces the fundamentals of microbiology, including: evolution, microbial structures and functions, metabolism, growth, genetics, classification and pathogenesis; virology; principles of infectious disease; host defenses and antimicrobial drugs. Laboratory includes techniques for isolation, cultivation and identification of microbes.

Prerequisites: BIOL& 160 or BIOL& 222 with a grade of C or better or instructor permission.

**BIOL 109**                      **S**                      **5.00 credits**  
**Energy and Life: Biological Sciences**                      **NSL**  
 Explores energy and life on earth through the study of biodiversity, metabolism, cell structure, genetics, evolution, and ecosystems. Students will gain an understanding of the natural world, science as a field of study, and develop skills to apply and teach scientific principles in everyday life. Intended for elementary education and early childhood education majors. Part of a three quarter sequence; students are not required to take entire sequence. Includes laboratory.  
 Prerequisite: None.

**BIOL 130**                      **5.00 credits**  
**Biodiversity of the Pacific Northwest**                      **NSL**  
 Introduces biological diversity of the major ecosystems of the Pacific Northwest (e.g. forest, riparian, wetland, estuary, and marine intertidal). Surveys common organisms of these ecosystems and students will learn fundamental biological principles as they relate to biodiversity (e.g. ecology, evolution, genetics) and the importance to human well-being, as well as the intrinsic value of biodiversity at three levels: genetic, species, and ecosystems. Students will learn methods in the lab and field for surveying, identifying, and measuring biodiversity. Students will complete original research on a group and/or ecosystem of their choice. Class will meet often outdoors and three day-long Saturday field trip(s) are required.  
 Prerequisite: ENGL& 101, MATH 089 or TECH 089, MATH 097 or instructor permission.

**BIOL 150**                      **W**                      **5.00 credits**  
**Human Genetics and Society**                      **NSL**  
 Introduces the discipline of human genetics by interweaving classical genetics concepts with current issues in genetics, including genetic diversity, the human genome, biotechnology, and genetic disorders. Presents the tools necessary for making informed decisions regarding the impact of genetic advances on individual lives and society, Laboratory includes exploration of DNA structure, DNA identification, and problem solving using activities, specimens and biotechnology equipment.  
 Prerequisites: none

**BIOL 179**                      **W,Sp**                      **5.00 credits**  
**Human Biology & Exercise**                      **NSL**  
 Introduces fundamental biological principles from cells to human organ systems. Provides comprehensive coverage of the physiology of exercise and its role in successful integration of exercise principles into exercise programs. Laboratory is included.  
 Prerequisites: None

**BIOL 288** 1.00-15.00 credits**Cooperative Work Experience**

Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.

Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**BIOL 297** F,W,Sp 1.00 credit**Special Topics in Microbiology** NSCI

Discusses selected advanced topics in microbiology. May be repeated for credit as topics change each time course is offered.

Prerequisites: BIOL& 260 or concurrent enrollment

**BIOL 298** F,W,Sp 1.00 credit**Special Topics in Human Physiology** NSCI

Discusses selected advanced topics in human physiology. May be repeated for credit as topics change each time course is offered.

Prerequisites: BIOL& 241 or concurrent enrollment.

**BIOL 299** 1.00-10.00 credits**Independent Study**

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisites: By instructor permission only.

## Blueprint (BLPT)

**BLPT 150** 5.00 credits**Machinists Blueprint Reading** REEL

Provides basic general information in reading and understanding plans and drawings that will be useful to vocational students. Focusing on line and symbol conventions used in industrial blueprints and visualization of solid objects from orthographic and isometric projections, the course leads to development of required skills for industrial design and problem solving. It also provides comprehensive information needed by persons in the machine trades for reading industrial blueprints and emphasizes specifications of materials, geometrical tolerancing, surface finishes, AWS welding symbols, and related foundry processes.

Prerequisite: None

**BLPT 160** 5.00 credits**Blueprint Reading for Welders** REEL

Provides basic general information in reading and understanding plans and drawings that will be useful to students in the welding field, focusing on identifying basic lines, dimensions, structural shapes, welding symbols, and basic joints for welding fabrication and practical layout design.

Prerequisite: MATH 106 or higher or instructor permission.

**BLPT 299** 1.00-10.00 credits**Independent Study**

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisites: By instructor permission only.

## Business (BUS)

**BUS& 101** S,F,W,Sp 5.00 credits**Intro to Business** REEL, SOCS

Surveys the business environment and many important elements of business including marketing, finance, accounting, computers, labor unions, small business management, economics, and the functions of management.

Prerequisite: None

**BUS& 201** S,F,W,Sp 5.00 credits**Business Law** SOCS

Introduces the law, sources of law, legal thinking, structure of courts, alternative dispute resolution, basic civil procedure, business organization, government constitutional authority and regulation, agency, employment and criminal law as relating to business, real property and landlord/tenant law, torts, international business law issues and ethics. Includes extensive concentration on contract law including Article 2 of the Uniform Commercial Code.

Prerequisites: ENGL& 101 OR BUS 119, or equivalent, with a grade of C or better, or instructor permission.

**BUS 100** S,F,W,Sp 5.00 credits**Foundations of Business Success** REEL

Explores foundational issues for success in college that correlate to success in business. In order to improve college achievement and business acumen, students will learn strategies in reading, study habits, test-taking, communications, mathematics, critical thinking, and teamwork.

Prerequisite: None

**BUS 104** S,F,W,Sp 5.00 credits**Business Math Applications** REEL

Teaches the use of basic mathematical processes to solve business applications. Topics include percentages, simple interest, compound interest, annuities, markups and markdowns, payroll, trade and cash discounts, banking, and solving problems with equations and formulas.

Prerequisite: BUS 100 or concurrent enrollment, MATH 078/079 or TECH 078/079 with a grade of C or better or instructor permission.

**BUS 118** **5.00 credits**  
**Ethics in Management**  
 Surveys current business ethical issues and concerns and is presented using the case study method. Through interactions, students will gain an understanding of how ethical considerations become a part of business decisions. Emphasis will be placed on advertising, affirmative action, product liability, employee rights, management/supervisory interactions, and corporate morality.  
 Prerequisite: None

**BUS 119** **S,Sp** **5.00 credits**  
**Business Communications** **REEL**  
 Emphasizes planning, organizing, and writing clear, concise business letters. Includes a review of grammar, punctuation, and word usage as applied to written business communication; experience in writing favorable messages. Students will present information orally and prepare a job resume and letter of application.  
 Prerequisite: ENGL 099 (was ENGL 100) or TECH 105 with a grade of C or better or placement test into ENGL& 101.

**BUS 144** **S,F,W,Sp** **5.00 credits**  
**Management of Human Relations: DIV DIV, SOCS**  
 Introduces and emphasizes the many aspects of human behavior as they affect individuals and groups in the workplace. Teaches human relations skills in the context of understanding human needs, attitudes, perceptions and motivations, workforce diversity teamwork, stress management, and interpersonal communications. Focus is on management of human relations factors within an organization and understanding the effects of discrimination, prejudice, and intolerance, in the pluralistic workplace.  
 Prerequisites: None

**BUS 150** **S,F,W,Sp** **5.00 credits**  
**Customer Service/Management**  
 Introduces the philosophy of service excellence as it pertains to organizations in today's business environment. Emphasis is on the effects of globalization, cultural diversity, and workforce diversity in organizations. Topics include developing interpersonal skills, interacting effectively with employees and customers, and establishing positive relationships with employees and customers, in the pluralistic workplace. Students will learn to identify the challenges and advantages of a diverse workforce and diverse customer base.  
 Prerequisite: none

**BUS 159** **F,Sp** **5.00 credits**  
**Principles of Retailing** **REEL**  
 Surveys retailing principles and concepts and studies store management, merchandise management, pricing, customer services, advertising, and display.  
 Prerequisite: None

**BUS 165** **W** **5.00 credits**  
**Salesmanship** **REEL**  
 Surveys multiple aspects of selling, including the importance of selling and salespeople in business and the rewards of a sales career. Topics include: buying behaviors, the ethical and legal issues in sales, the buying process, the approach, the presentation, demonstration of merchandise, handling of objectives, closing the sale, follow-up and effective sales management.  
 Prerequisite: None

**BUS 207** **3.00 credits**  
**Statistical Projects** **NSCI**  
 Provides an opportunity for students to apply the statistical processes learned in MATH 210/BUS 206 by designing their own statistical project. Topics may include nonparametric statistics, sampling techniques, design of experiments and data analysis.  
 Prerequisite: MATH 210 or BUS 206 with a grade of C or better or concurrent enrollment in MATH 210 or BUS 206.

**BUS 240** **F** **5.00 credits**  
**Principles of Supervision**  
 Analyzes basic functions of the supervisory-level management along with emphasis on skills needed to be an effective leader/manager of a diverse workforce. Emphasis will be on the differences between supervisors and upper management.  
 Prerequisite: None

**BUS 244** **W** **5.00 credits**  
**Human Resource Management**  
 Introduces the fundamental concepts of Human Resource Management, including hiring skills, long-term planning, employee laws, recruitment, staffing, training, compensation programs (both direct and indirect), collective bargaining, employee relations, safety training, health and EAPs (employee assistance programs).  
 Prerequisite: None

**BUS 245** **S,F,Sp** **5.00 credits**  
**Principles of Management**  
 Offers the student a history of management and its various theories. Covers the principles and application of planning, organizing, leading and controlling. Students also view management from the roles of supervisory, middle and top management.  
 Prerequisite: None

**BUS 259** **S,Sp** **5.00 credits**  
**Starting/Managing a Small Business** **REEL**

Surveys the characteristics of small businesses, and includes the study of planning and organizing a new business, starting up a new business, producing products or services, marketing, planning, and control. Students are required to develop and present a feasibility plan and business plan for a proposed business.

Prerequisite: ACCT 101, BUS& 101 (was BSAD 110), and BTEC 131 (was CS 121) with a grade of C- or better, or instructor permission.

**BUS 264** **S,W** **5.00 credits**  
**Principles of Marketing**

Presents marketing functions and their roles in the economic process, emphasizing marketing systems, product planning, promotion, and sales.

Prerequisite: BUS& 101 (was BSAD 110) or instructor permission.

**BUS 265** **W** **5.00 credits**  
**Advertising**

Provides an overview of the related fields of sales and advertising. The course encompasses economics of selling and selling processes and studies field of advertising with emphasis on planning, implementing, and controlling the advertising process. (Formerly known as BSAD 270)

Prerequisite: None

**BUS 270** **W,Sp** **5.00 credits**  
**Introduction To Project Management**

Focuses on management principles, methods, and tools to effectively plan and implement complex projects. Includes project scoping, preparation, planning, and monitoring. Covers classical techniques and new methodologies; spreadsheet-based tools; and probabilistic project simulation from strategic, tactical, and operational perspectives.

Prerequisites: BTEC 131 (was CS 121) and BUS 144 with a grade of C or better, or instructor permission.

**BUS 288** **1.00-15.00 credits**  
**Cooperative Work Experience**

Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.

Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**BUS 290** **5.00 credits**  
**Design Thinking & Entrepreneurship**

Explores concepts in entrepreneurship as well as introduces students to design thinking, human centered design and the theory of change model as an approach to life. It is designed to promote discovery and expand critical thinking as well as provide students with the opportunity to evaluate concepts such as ethics, social responsibility, the business model, financing a new venture, laws & regulations and business governance in relation to entrepreneurial endeavors.

Prerequisites: None

**BUS 294** **S,F,W,Sp** **3.00 credits**  
**Career Success** **REEL**

Provides preparation for pursuing a career in business, with a focus on self-assessment, job search, application process documents, and interviewing techniques. This course is intended for Business students in their second year. Students should enroll in this course during one of the last two quarters of their program.

Prerequisite: Program advisor permission.

**BUS 299** **1.00-10.00 credits**  
**Independent Study**

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisites: By instructor permission only.

## Business Technology (BTEC)

**BTEC 10** **S,F,W,Sp** **1.00-5.00 credits**  
**Keyboarding with Speed and Accuracy**

Introduces keyboarding using the computer and individualized instruction media. Provides instruction and practice on the alphabet, number, symbol, and 10-key numeric keypad. Provides an individualized skill-building program for students who need or want to increase their keyboarding accuracy. Copy paragraph material at a speed of not less than 20 words per minute for one minute with 2 or fewer errors.

Prerequisites: None

**BTEC 104** **F,Sp** **5.00 credits**  
**Introduction to Business Technology** **REEL**

Introduces current business software and technology. Basic computer concepts and navigating within the Windows environment are discussed. Electronic communication, information retrieval, word processing, spreadsheet analysis, graphic presentation, and database management are practiced.

Prerequisite: BUS 100 Concurrent requirements: BUS 100 if not previously taken.



**BTEC 110**            **S,F,W,Sp**            **1.00-5.00 credits**  
**Keyboarding with Speed and Accuracy**            **REEL**  
 Introduces keyboarding using the computer and individualized instruction media. Provides instruction and practice on the alphabet, number, symbol, and 10-key numeric keypad. Provides an individualized skill-building program for students who need or want to increase their keyboarding accuracy. Copy paragraph material at a speed of not less than 30 words per minute for one minute with 2 or fewer errors.  
 Prerequisites: None

**BTEC 111**            **S,F,W,Sp**            **5.00 credits**  
**Word Processing I**            **REEL**  
 Utilizes Microsoft Word features to format, edit, maintain, merge, and reference business documents. Includes creating tables and using SmartArt graphics.  
 Prerequisites: BTEC 104 with a grade of C or better or instructor permission, and a minimum keyboarding speed of 35 wpm or concurrent enrollment in BTEC 105.

**BTEC 112**            **S,Sp**            **5.00 credits**  
**Word Processing II**            **REEL**  
 Presents advanced word processing features using Microsoft Word. Examines creating letters, reports, research papers, brochures, newsletters, and other documents. Introduces customizing, proofing, automation, specialized navigation and referencing, working with shared documents, and document protection and security.  
 Prerequisites: BTEC 111 with a grade of C or better or instructor permission, and a minimum keyboarding speed of 45 wpm or concurrent enrollment in BTEC 105.

**BTEC 120**            **F,W**            **3.00 credits**  
**Specialized Applications For Business**            **REEL**  
 Introduces the most current business software applications to perform various business functions. Skills learned include managing and sharing multiple forms of information, creating and understanding technical flowchart diagramming, managing timelines, resources, tasks and budgets to measure and increase productivity. Understand how to utilize specialized applications to make more informed and accurate business decisions. Students will complete a capstone project utilizing all three applications.  
 Prerequisites: CS 110 or BTEC 104 with a C or better, or Instructor Permission

**BTEC 130**            **S,F,W,Sp**            **1.00-2.00 credits**  
**Electronic Calculators**            **REEL**  
 Develops speed and accuracy by touch on the ten-key electronic calculator and the computer numeric keypad. Includes using special features of a calculator and applying learned skills to business problems.  
 Prerequisite: None.

**BTEC 131**            **F,W,Sp**            **5.00 credits**  
**Introduction to Spreadsheets**            **REEL**  
 Introduces the use of spreadsheet programs in business applications. Provides practical experience in using a spreadsheet to solve common business problems. (Formerly CS 121)  
 Prerequisites: BTEC 104 or CS 110, and MATH 089 or TECH 089 or BUS 104 or MATH 097, with a C or higher, or instructor permission.

**BTEC 135**            **F,W,Sp**            **5.00 credits**  
**Advanced Data Analysis**            **REEL**  
 Offers an introduction to the study and use of computerized database management systems and advanced spreadsheet topics. This course provides basic database theory and application in a disciplined approach to problem solving in a business environment. Explores complex spreadsheet features such as macros, data management, and advanced formulas and functions to solve business problems. Demonstrates spreadsheets as business analytics and statistical analysis tools. Explores the integration features of both applications to find advanced data analysis solutions for informed business decisions.  
 Prerequisites: BTEC 131 (was CS 121) with a grade of C or better, or instructor permission.

**BTEC 145**            **S,F,W,Sp**            **1.00-5.00 credits**  
**Introduction to MS Word**            **REEL**  
 Introduces students to Microsoft Word features that may be used in both personal and business environments. Topics include basic and intermediate-level document formatting. Students will have an opportunity to complete the MOS Word Core Certification to earn a credential for MS Word Proficiency.  
 Prerequisites: None

**BTEC 146**            **S,F,W,Sp**            **1.00-2.00 credits**  
**Powerpoint Fundamentals**            **REEL**  
 Introduces presentation graphics, using Microsoft PowerPoint to create electronic slide shows. Students create and edit slide shows, apply templates, format slides, enter text, print presentations, create charts, and employ other graphical functions and features. Includes a basic coverage of design for presentation best practices. Students will have the opportunity to complete the Microsoft Office Applications Exam for PowerPoint.  
 Prerequisites: None

**BTEC 147**            **S,F,W,Sp**            **1.00-3.00 credits**  
**Introduction To Desktop Publishing**            **REEL**  
 Provides hands-on instruction using Microsoft Publisher. Emphasizes formatting and enhancing text, developing styles, using columns and tables with special effects, and working with art, to create professional-looking publications. Students will complete a final comprehensive presentation project.  
 Prerequisites: None

**BTEC 148**                      **F,W,Sp**                      **2.00 credits**  
**Introduction to Outlook**                      **REEL**  
 Offers an introduction to using Microsoft Outlook communication and scheduling as a business tool. This course is designed to prepare students with a full understanding of features available in Microsoft Outlook. Topics include email, contacts, schedule management, and instant messaging.  
 Prerequisite: None

**BTEC 150**                      **S,F,W,Sp**                      **1.00-3.00 credits**  
**Introduction to Google Applications**                      **REEL**  
 Introduces Google Application features that may be used in both personal and business environments. Topics include web-based communication, collaboration, media, and locational tools. Students will use web-based tools to create and manage a Google Site.  
 Prerequisites: None.

**BTEC 155**                      **S,F,W,Sp**                      **3.00 credits**  
**Website Management**                      **REEL**  
 Covers the processes involved in identifying client needs, target audience, and content management for website deployment. Students will explore domain name management, ISP relationships, media management, user group management, and integration of evolving technology. Students will learn to use an advanced data analytics tool to evaluate website traffic.  
 Prerequisites: None

**BTEC 161**                      **F**                      **5.00 credits**  
**Intro to ICD-10 Coding in the Medical Office Part I**                      **REEL**  
 Covers the rules and guidelines utilized in the assignment of ICD-10 codes. Students will select and assign the appropriate codes to diagnoses and procedures performed in both inpatient and outpatient settings, and learn to extract diagnoses from a patients record.  
 Prerequisite: BTEC 181 and MEDA 120, both with a grade of C or higher or Instructor Permission

**BTEC 162**                      **W**                      **5.00 credits**  
**Intro to ICD-10 Coding in the Medical Office Part II**                      **REEL**  
 Continues to develop and reinforce the rules and guidelines utilized in the assignment of ICD-10 codes. Students will select and assign the appropriate codes to diagnoses and procedures performed in both inpatient and outpatient settings.  
 Prerequisite: BTEC 161 with a grade of C or better or instructor permission.

**BTEC 163**                      **Sp**                      **5.00 credits**  
**CPT Coding**                      **REEL**  
 Introduces the rules and guidelines of Current Procedural Terminology (CPT) coding, which are utilized in the reimbursement of outpatient procedures and surgeries. Students learn to use the CPT coding book. Course also introduces the evaluation and management processes used for physician reimbursement and the government regulations regarding CPT coding.  
 Prerequisites: BTEC 162 with grade C or better or instructor permission.

**BTEC 164**                      **1.00-2.00 credits**  
**Legal Aspects of the Medical Office**                      **REEL**  
 Presents the legal, ethical, and bioethical issues relevant to medical office settings. Course features legal cases and legislation. Topics include patient confidentiality, advance directives, consents, professional liability, medical malpractice, release of information, and the professional code of ethics.  
 Prerequisite: None

**BTEC 165**                      **Sp**                      **5.00 credits**  
**Cultural Awareness for Care Professionals: DIV**                      **DIV, REEL**  
 Explores the cultural disparities in healthcare. Examines cultural and linguistic differences which limit the access to healthcare or prevent the adoption of health promoting or harm-reducing behaviors. Presents effective cross-cultural communication through the use of relevant languages, respectful attitudes, and cultural knowledge. Provides strategies to apply cultural awareness skills in all aspects of work with clients, families, community members, and colleagues.  
 Prerequisites: None

**BTEC 171**                      **F**                      **3.00 credits**  
**Medical Reception Procedures**                      **REEL**  
 Provides a foundation of basic knowledge and skills for employment in a physician's office or clinic. Topics include reception techniques, medical records and related laws, appointment scheduling, telephone use procedures, and office maintenance. This may be taken as a stand-alone course for students in the Medical Reception certificate program. It also serves as the first in a three-part series required for AAS in Medical Administrative Support, COP in Medical Billing & Coding, AAS/COP in Medical Assisting.  
 Prerequisites: ENGL 099 (was ENGL 100) or higher.

**BTEC 172**                    **W**                    **3.00 credits**  
**Medical Office Procedures**                    **REEL**  
 Provides instruction and practice for advanced administrative support skills in the medical office. Topics include: payroll, banking, fee schedules, credit and collections, patient and insurance billing, bookkeeping, and coding. This course is the second in a three-part series for the Associate of Applied Science degree in Administrative Support or Medical Assisting. It is also required for the certificate of proficiency in Medical Assisting.  
 Prerequisites: ENGL 099 (was ENGL 100) or TECH 105 or instructor permission, MATH 079 or TECH 079 or instructor permission, and BTEC 171, each with a grade of C or better.

**BTEC 173**                    **Sp**                    **3.00 credits**  
**Computers in the Medical Office**                    **REEL**  
 Introduces computer software programs and electronic health records used in healthcare practice management. Prepares students to complete administrative tasks in healthcare, including bookkeeping, billing, claims submission, appointment scheduling. Presents various functions completed in electronic health records. This course is the third in a three-part series required for the Associate of Applied Science degree in Medical Assisting or Administrative Support. It is also a requirement for the Medical Assisting certificate of proficiency.  
 Prerequisites: BTEC 172 with grade C or better.

**BTEC 181**                    **S,F,W,Sp**                    **3.00 credits**  
**Medical Terminology I**                    **REEL**  
 Provides a foundation for building a medical vocabulary including the study of prefixes, roots, suffixes, combining forms, and pronunciation. Emphasis is on using medical terms accurately in documenting and reporting patient care procedures.  
 Prerequisite: None

**BTEC 182**                    **S,F,W,Sp**                    **3.00 credits**  
**Medical Terminology II**                    **REEL**  
 Continues the focus of BTEC 181 incorporating actual medical records and demonstrating how medical terminology is used in the clinical setting.  
 Prerequisite: BTEC 181 or MEDA 101 each with a grade of C or better.

**BTEC 20**                    **S,F,W,Sp**                    **3.00 credits**  
**Specialized Applications For Business**  
 Introduces the most current business software applications to perform various business functions. Skills learned include managing and sharing multiple forms of information, creating and understanding technical flowchart diagramming, managing timelines, resources, tasks and budgets to measure and increase productivity. Understand how to utilize specialized applications to make more informed and accurate business decisions.  
 Prerequisites: CS 110 or BTEC 104 with a C or better, or Instructor Permission

**BTEC 260**                    **S,W**                    **5.00 credits**  
**Office Procedures**                    **REEL**  
 Provides and enhances essential skills for administrative professionals including time management, basic finance, critical thinking, office technology, web tools, communication, teamwork and cultural diversity awareness to prepare for the workplace.  
 Prerequisites: ENGL& 101 or BUS 119, BUS 104 and BTEC 104 with a grade of C or better, or instructor permission.

**BTEC 288**                    **1.00-15.00 credits**  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission  
 Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**BTEC 294**                    **S,F,W,Sp**                    **2.00 credits**  
**Career Success**                    **REEL**  
 Provides preparation for pursuing a career in business technology, with a focus on self-assessment, job search, application process documents, and interviewing techniques. This course is intended for Business Technology students in their second year. Students should enroll in this course during one of the last two quarters of their program.  
 Prerequisite: Program advisor permission.

**BTEC 299**                    **1.00-10.00 credits**  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisites: By instructor permission only.

**BTEC 45**                    **S,F,W,Sp**                    **1.00-5.00 credits**  
**Introduction to MS Word**  
 Introduces students to Microsoft Word features that may be used in both personal and business environments. Topics include basic and intermediate-level document formatting.  
 Prerequisites: None

**BTEC 46**                    **S,F,W,Sp**                    **1.00-2.00 credits**  
**Powerpoint Fundamentals**  
 Introduces presentation graphics, using Microsoft PowerPoint to create electronic slide shows. Students create and edit slide shows, apply templates, format slides, enter text, print presentations, create charts, and employ other graphical functions and features. Includes a basic coverage of design for presentation best practices.  
 Prerequisites: None

**BTEC 47 S,F,W,Sp 1.00-3.00 credits  
Introduction To Desktop Publishing**

Provides hands-on instruction using Microsoft Publisher. Emphasizes formatting and enhancing text, developing styles, using columns and tables with special effects, and working with art, to create professional-looking publications.

Prerequisites: None

**BTEC 50 S,F,W,Sp 1.00-3.00 credits  
Introduction to Google Applications**

Introduces Google Application features that may be used in both personal and business environments. Topics include web-based communication, collaboration, media, and locational tools.

Prerequisites: None.

**BTEC 55 S,F,W,Sp 3.00 credits  
Website Management**

Covers the processes involved in identifying client needs, target audience, and content management for website deployment. Students will explore domain name management, ISP relationships, media management, user group management, and integration of evolving technology.

Prerequisites: None

## Chemical Dependency Studies (CDS)

**CDS 101 F,Sp 5.00 credits  
Introduction to Addictions and Chemical Dependency SOCS**

Introduces the student to the basic theories of drug/alcohol use and abuse. Explores the scope of chemical substance dependency. Topics include socio-cultural aspects of drug usage, patterns and progression, definitions of substance abuse and dependency recovery and prevention. This course is the primary course for students interested in a career counseling the chemically dependent.

Prerequisite: None.

**CDS 102 W 3.00 credits  
Introduction to Theories and Counseling of Chemically Dependent Clients REEL**

Introduces the student to the need for a theoretical base for CD counseling. Students will learn the fundamental concepts of at least three contemporary theories of counseling, and will gain a working knowledge of brief therapy.

Prerequisite: CDS 101 with a grade of C or better.

**CDS 105 W 3.00 credits  
Chemical Dependency/Domestic Violence REEL**

Provides students with a basic understanding of social problems and legal issues relative to domestic violence and its impact on children and families.

Prerequisite: None

**CDS 107 Sp 3.00 credits  
Adolescent Developmental Issues and Chemical Dependency REEL**

Examines the special issues and challenges of working with adolescent chemical abuse and dependency. This class will cover the following: adolescent development tasks, assessment process and tools, diagnostic challenges, treatment and recovery considerations, co-occurring disorders and relapse prevention. It will also cover information about family assessment, treatment, and recovery issues. Formerly known as CDS 207.

Prerequisite: None.

**CDS 108 F 4.00 credits  
Community & School-Based Prevention/Intervention Strategies REEL**

Presents history of the prevention discipline, including theories and research-based approaches. Presents various models of prevention, such as the risk and protective factor model, developmental asset model and resiliency model. Addresses the Strategic Prevention Framework. Reviews media models for prevention. Presents principles and dynamics of group development. Discusses various types of community and school groups. Presents advocacy methods and grant writing.

Prerequisites: None

**CDS 110 Sp 3.00 credits  
Alcohol/Drug Pathophysiology and Pharmacology REEL**

Reviews the human body with emphasis on the action of alcohol and other frequently abused drugs on each of the systems. Drug classification, prescription and non-prescription, drug interactions, poly-drug abuse, detoxification process, acute and post-acute withdrawal signs and systems will be studied. Fetal effects from substance abuse will be examined. (Formerly known as CDS 211)

Prerequisite: CDS 101, 102, and 113 all with a grade of C or better.

**CDS 111 Sp 3.00 credits  
Record Keeping and Case Management REEL**

Introduces the student to case management and record keeping techniques. Assessment, diagnosis, individual treatment planning, charting, and continuing care planning will be explored. Confidentiality utilization review and staffing techniques will be discussed.

Prerequisite: CDS 101, 102, and 113 all with a grade of C or better.

**CDS 113 F 3.00 credits**  
**Treatment Principles of Chemical Dependency**

**REEL**

Presents the principles and processes needed to effectively treat individuals suffering from addiction. Explores the four phases of the developmental treatment model. Discusses goal setting and objectives related to each phase of the individual's recovery. Presents the basics of motivational interviewing to become a more effective professional.

Prerequisites: Previous completion of or concurrent enrollment in CDS 101.

**CDS 114 W 2.00 credits**  
**Suicide Assessment, Prevention and Crisis Management**

**REEL**

Presents methods for assessing suicide risk, intervention techniques, and suicide prevention strategies. Explores crisis management methods. Discusses the legal issues involved in suicide prevention.

Prerequisites: None

**CDS 121 W 3.00 credits**  
**Legal and Ethical Issues in CDS**

**REEL**

Explores legal and ethical issues in chemical dependency counseling. Includes topics of ethical decision making, confidentiality and malpractice, as well as maintaining a professional counselor/client relationship. Addresses issues and values involved in counseling clients from different cultures and with diverse needs.

Prerequisite: None

**CDS 201 Sp 3.00 credits**  
**Dynamics of the Family and Chemical Dependency**

**REEL**

Introduces students to the dynamics of the chemically dependent family. Studies the effects of addiction on the family. ACOA (adult children of alcoholics) issues will be addressed. Education and treatment strategies will be explored. Students must enroll concurrently in CDS 111, and either enroll concurrently in CDS 110 or obtain instructor permission.

Prerequisite: CDS 101, 102, 113 and 215 with a C or better.

**CDS 202 F,Sp 3.00 credits**  
**Chemical Dependency Counseling with Diverse Populations**

**REEL**

This course is designed to prepare the chemical dependency counselor for working with individuals and families from diverse populations. The goal of the course is to raise the level of awareness and cultural sensitivity of the chemical dependency counselor. It will challenge the student to examine culturally learned assumptions that shape their interactions with clients. It helps the chemical dependency counselor become more knowledgeable about social structures that cause inequality and its effect on treatment.

Prerequisite: CDS 101, 102, 113, and 121 or instructor permission.

**CDS 203 W 3.00 credits**  
**Relapse Prevention and Intervention**

**REEL**

This course is designed to educate the chemical dependency counselor on all aspects of the relapse process. This includes assessment, education, intervention, relapse treatment plans, family involvement, and stress management.

Prerequisite: CDS 101, 102, and 113 or instructor permission.

**CDS 215 F,Sp 3.00 credits**  
**Group Counseling: Theories and Application**

**REEL**

Provides the student with the theory and the practice of group counseling with chemical dependent clients and their families being studied. Students will gain a working knowledge of group counseling theories. Styles of group decision-making will also be applied. Role playing and modeling techniques will enhance the students' skills.

Prerequisite: CDS 101 and 113 both with a grade of C or better.

**CDS 220 Sp 3.00 credits**  
**Co-Occur Disorders: Mental Health Disorders in CDS**

**REEL**

Examines the mental/emotional alterations and their impact on the client with chemical dependency. Materials covered include use of the current edition of the Diagnostic and Statistical Manual, as it relates to diagnosis.

Prerequisite: CDS 101, 102, and 113 all with a grade of C or better or instructor permission.

**CDS 240 3.00 credits**  
**Compulsive Sexual Behavior**

**REEL**

Focuses on the assessment, clinical and theoretical clarification, and treatment of a number of forms of compulsive sexual behaviors. A distinction between addictive, compulsive, and impulsive sexual behavior will be presented as well as various theories of the conditions development. A variety of treatment modalities will be reviewed.

Prerequisite: None

**CDS 288 1.00-15.00 credits**  
**Cooperative Work Experience**

Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.

Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**CDS 299 1.00-10.00 credits**  
**Independent Study**

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisites: By instructor permission only.

## Chemistry (CHEM)

**CHEM& 100**                      **S,F,W,Sp**                      **5.00 credits**  
**Preparatory Chemistry**                      **NSL**

Introduces the world of chemistry through the exploration of matter and the basic properties related to what our surroundings are composed of. Students will examine laws, formulas, reactions, and structure governing all substances and their interactions. Prepares students for further study in chemistry. No credit is given to those with one year of recent high school chemistry credit.

Prerequisite: None

**CHEM& 110**                      **S,F,W,Sp**                      **5.00 credits**  
**Chemical Concepts w/Lab**                      **NSL**

Provides an exploration of our universe through the study of atomic structure, interactions between matter and energy, and everyday encounters with chemistry (technology, environment, energy, materials, foods, etc.). This course is primarily for non-science majors planning to transfer. Laboratory is included.

Prerequisite: Completion of or concurrent enrollment in MATH 079 or TECH 079.

**CHEM& 121**                      **S,F,W,Sp**                      **5.00 credits**  
**Intro to Chemistry**                      **NSL**

Provides an exploration of the matter that makes up our universe through the study of atomic structure, gases, solutions, acids and bases, stoichiometry, and reactions. This course is primarily for non-science majors preparing for careers in the health sciences and related fields. Laboratory is included.

Prerequisite: CHEM& 100 or CHEM& 110 or one year of high school chemistry, and completion of, or concurrent enrollment in MATH 088 or TECH 088; or MATH 087.

**CHEM& 131**                      **Sp**                      **5.00 credits**  
**Intro to Organic/Biochem**                      **NSL**

Explores the chemistry of carbon compounds including structures, nomenclature, and properties of basic organic compounds with an emphasis on biochemical substances and applications. Includes families of alkanes, alkenes, alcohols, ethers, aldehydes, ketones, acids, proteins, carbohydrates, and other biochemical materials. This course is primarily for non-science majors preparing for careers in the health sciences and related fields. Laboratory is included.

Prerequisite: CHEM& 121 (was CHEM 111) or CHEM& 161 (was CHEM 151).

**CHEM& 161**                      **F,W**                      **5.00 credits**  
**General Chem w/Lab I**                      **NSL**

Provides an in-depth study of chemistry formulas and equations, mathematics, gas laws, atomic theory, solution chemistry, periodic law, electron configurations, the mole concept and stoichiometry. This is the first of a three-quarter sequence designed for science majors. Laboratory is included.

Prerequisites: CHEM& 100 or high school chemistry and MATH 099 or TECH 099.

**CHEM& 162**                      **F,W,Sp**                      **5.00 credits**  
**General Chem w/Lab II**                      **NSL**

Provides the applications portion of the year-long study of chemistry. This course examines bonding and molecular theory, intermolecular forces, solids, liquids, and gases, solutions, acids, bases, salts, pH, kinetics, equilibrium, electrochemistry, and an introduction to thermodynamics. This is the second in a three-quarter sequence designed for science majors. Laboratory is included.

Prerequisites: CHEM& 161 AND MATH 099 or TECH 099

**CHEM& 163**                      **S,Sp**                      **5.00 credits**  
**General Chem w/Lab III**                      **NSL**

Examines, in more detail, equilibrium, thermodynamics, and descriptive chemistry of elements and their compounds. Topics in kinetics and equilibrium are revisited to enhance students' comprehension and understanding. The course ends with a survey of several areas of chemistry including coordination chemistry, nuclear and radiochemistry, nanochemistry, organic chemistry, and biochemistry with special emphasis on relevant and inspiring aspects of these topics. Laboratory is included.

Prerequisites: CHEM& 162 AND MATH 099 or TECH 099

**CHEM& 261**                      **F**                      **5.00 credits**  
**Organic Chem w/Lab I**                      **NSL**

Explores the chemistry of organic compounds including structures, nomenclature, bonding, and properties of basic organic compounds. The course covers the families of alkanes, alkenes, and alkynes, and discusses functional groups and stereochemistry and their roles in chemical properties. This is the first in a three-quarter sequence designed for science majors in chemistry-related fields. Laboratory is included.

Prerequisite: CHEM& 163 (was CHEM 153) or instructor permission.

**CHEM& 262**                      **W**                      **5.00 credits**  
**Organic Chem w/Lab II**                      **NSL**

Continues the exploration of the chemistry of organic compounds including structures, nomenclature, and synthesis of basic organic compounds. The course covers the families of alkyl halides, alcohols, aldehydes, ketones, and other groups of compounds. Reactions and synthesis of various compounds of these families will be studied and performed. Products of the processes will be examined using physical and spectroscopic means. This is the second in a three-quarter sequence designed for science majors in chemistry-related fields. Laboratory is included.

Prerequisite: CHEM& 261 (was CHEM 251).

**CHEM& 263** Sp **5.00 credits**  
**Organic Chem w/Lab III** **NSL**  
 Continues the exploration of the chemistry of organic compounds including structures, nomenclature, and synthesis of basic organic compounds. The course covers the families of amines, carbonyls, aromatics, biochemical compounds and other groups of compounds. Reactions and synthesis of various compounds will be studied and performed. Products of these processes will be examined using physical and spectroscopic means. The course includes a qualitative analysis of organic compounds. This is the third of a three-quarter sequence designed for science majors in chemistry-related fields. Laboratory is included.  
 Prerequisite: CHEM& 262 (was CHEM 252).

**CHEM 231** Sp **5.00 credits**  
**Quantitative Analysis** **NSL**  
 Provides a study of the qualitative and quantitative analytical applications of chemistry including the mathematical treatment of data collected. It will examine gravimetric and volumetric wet chemical analysis. Instrumental analysis of both organic and inorganic substances will be done. This is a one-quarter course required for students who are chemistry and chemical engineering majors.  
 Prerequisite: Completion of, or concurrent enrollment in CHEM& 163 (was CHEM 153).

**CHEM 288** **1.00-15.00 credits**  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**CHEM 299** **1.00-10.00 credits**  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisites: By instructor permission only.

## Chinese (CHIN)

**CHIN& 121** **5.00 credits**  
**Chinese I: DIV** **HUM, DIV**  
 Introduces Mandarin language and Chinese culture. Emphasizes listening, pronunciation, basic vocabulary and fundamentals of grammar. Introduces Chinese characters. Explores Chinese culture, including social interaction, family relationships, artistic expression, and values.  
 Prerequisite: None

**CHIN& 122** **5.00 credits**  
**Chinese II: DIV** **DIV, HUM**  
 Continues the study of the Mandarin language and Chinese culture, building on the basic language skills. Enhances abilities with pronunciation, grammar and vocabulary. Further explores Chinese culture, including proverb and folk stories. Expands on recognition and writing of Chinese characters.  
 Prerequisites: None

**CHIN& 123** **5.00 credits**  
**Chinese III: DIV** **DIV, HUM**  
 Continues the study of the Mandarin language and Chinese culture, expanding on previous knowledge to develop beginning fluency in understanding, speaking, reading, and writing Mandarin. Further explores Chinese culture and regional identities.  
 Prerequisite: None

**CHIN 288** **1.00-15.00 credits**  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**CHIN 299** **1.00-10.00 credits**  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisites: By instructor permission only.

## College Success (COLL)

**COLL 100** **5.00 credits**  
**College Success** **REEL**  
 Emphasizes development of necessary skills for successful completion of college courses. Provides techniques and strategies to improve time management, memory, lecture note taking, textbook reading, outlining, learning styles, use of library, test preparation, and test taking. Focuses on how individuals become independent learners and critical thinkers. Empowers students to apply learning strategies in all other content classes.  
 Prerequisite: Reading and writing skills at or above ENGL 075.

<b>COLL 101</b> <b>First Year Seminar I</b>	<b>S,F,W,Sp</b>	<b>2.00 credits</b> <b>REEL</b>	
Explores foundational issues for success in college including an introduction to campus resources and college culture. Students will develop behaviors and attitudes characteristic of successful students; develop basic reading, study, and test-taking strategies; and create a plan for success during the next quarter and beyond. This course is a placement requirement for students who test into ENGL 098, and is open to all students. Prerequisites: None			
<b>COLL 102</b> <b>First Year Seminar II</b>	<b>S,F,W,Sp</b>	<b>2.00 credits</b> <b>REEL</b>	
Further explores foundational issues for success in college with an emphasis on career and life planning. Students will create a comprehensive academic plan that includes the exploration of three career options, a sample scholarship essay, STARS navigation, financial literacy, intended program and timeline for completion. This course is a placement requirement for students who test into ENGL 098, and is open to all students. Prerequisites: Completion of COLL 101			
<b>COLL 103</b> <b>First Year Seminar III</b>		<b>2.00 credits</b> <b>REEL</b>	
Continues the exploration of foundational issues for success in college with an emphasis on critical thinking strategies. Students will continue to develop behaviors and attitudes characteristic of successful students; continue to develop and evaluate basic reading, study, and test-taking strategies; and create a plan for success during the next quarter and beyond. Prerequisites: COLL 102			
<b>COLL 104</b> <b>College Knowledge</b>		<b>1.00 credit</b> <b>REEL</b>	
Prepares students to transition from Basic Skills, Career Education Options, or Developmental Education courses to college level courses or employment by providing students with tools to create a plan for success. Prerequisite: None			
<b>COLL 108</b> <b>Service Learning</b>	<b>W</b>	<b>3.00 credits</b> <b>REEL</b>	
Provides opportunities for the improvement of written and oral communication skills. Integrates international students into service learning projects that teach about American culture, skills for future careers, and to build relationships. Requires students to devise a plan for service learning project, set goals for the project and measure overall success. Develops relationships with community partners and helps students learn about accountability and about life in America. This course will be required for all international students as they enter Lower Columbia College or upon successful completion of all IESL courses. Prerequisites: Instructor permission.			
<b>COLL 289</b> <b>Employment Portfolio Seminar</b>			<b>1.00 credit</b> <b>REEL</b>
Provides students with skills and tools necessary to apply for employment. Seminar topics include but are not limited to employment portfolio, preparing for job interviews, and use of resources in the LCC Career and Employment Center.			
<b>COLL 74</b> <b>Math Success</b>	<b>S,F,W,Sp</b>	<b>2.00-3.00 credits</b>	
Emphasizes the attributes of a successful math student by providing strategies for time-management, note-taking, problem solving, and overcoming math and test-taking anxiety. Explores learning styles and positive growth mindset. Students will develop study skills necessary to be successful in math courses. Prerequisites: None			
<b>COLL 93</b> <b>Test Taking</b>			<b>1.00 credit</b>
Offers strategies to help students improve test-taking abilities such as scheduling time, preparing for exams, finding exam cues, writing essay responses, and answering objective questions. Prerequisite: None			
<b>COLL 94</b> <b>Notetaking</b>			<b>1.00 credit</b>
Prepares students to effectively take lecture notes. Techniques include active listening, looking for main ideas, using signal words, and organizing notes. (Formerly known as INDV 094) Prerequisite: None			
<b>COLL 95</b> <b>Time Management</b>			<b>1.00 credit</b>
Offers strategies to help students organize time effectively, improve the study environment, prioritize goals, control procrastination, and use support resources as needed. Prerequisite: None			
<b>COLL 96</b> <b>Textbook Reading Techniques</b>			<b>1.00 credit</b>
Provides techniques that improve ability to read and comprehend college textbooks. Skills include pre-reading, skimming, scanning, marking, highlighting, and annotating. Prerequisite: None			



# Communication Studies (CMST)

**CMST& 210**                      **S,F,W,Sp**                      **5.00 credits**  
**Interpersonal Communication**                      **HUM**

Explores how communication develops and changes relationships. Addresses theories and principles of interpersonal communication, including perception, self concept, feedback, listening, nonverbal communication, empathy and disclosure, and handling conflict with an emphasis on skill building and improvement. Personal, family, and working contexts are considered.  
Prerequisite: None

**CMST& 220**                      **S,F,W,Sp**                      **5.00 credits**  
**Public Speaking**                      **HUM, ELEC**

Examines the planning, development, and delivery of informative and persuasive speeches. Emphasis is given to effective structure and support of ideas, establishing credibility, audience analysis, language use, speaker anxiety, verbal and nonverbal presentation skills, and listening. Self-critiques are also stressed. (Formerly SPCH 110)  
Prerequisite: None

**CMST& 230**                      **S,F,W,Sp**                      **5.00 credits**  
**Small Group Communication**                      **HUM**

Introduces principles and processes of small groups and development of skills for participation and leadership in small group settings. Practice in problem solving, decision making, information sharing, and the relational aspects of small group work. Includes analysis and evaluation of project-based small group work. Students will apply small group communication concepts to analyze their own work in a variety of structured discussions and activities.  
Prerequisite: None.

**CMST 126**                      **F**                      **2.00 credits**  
**Competitive Public Speaking**

Provides investigation and practice in background, format, procedures and evaluation criteria of forensics events. Students must participate in a minimum of two intercollegiate tournaments.  
Prerequisite: None

**CMST 127**                      **W**                      **2.00 credits**  
**Competitive Public Speaking**

Provides investigation and practice in background, format, procedures and evaluation criteria of forensics events. Students must participate in a minimum of two intercollegiate tournaments.  
Prerequisite: None

**CMST 128**                      **Sp**                      **2.00 credits**  
**Competitive Public Speaking**

Provides investigation and practice in background, format, procedures and evaluation criteria of forensics events. Students must participate in a minimum of two intercollegiate tournaments.  
Prerequisite: None

**CMST 136**                      **F**                      **2.00 credits**  
**Intercollegiate Debate**

Provides investigation and practice in oral problem solving through the debate format. The student is expected to attend a minimum of two debate tournaments.  
Prerequisite: None

**CMST 137**                      **W**                      **2.00 credits**  
**Intercollegiate Debate**

Provides investigation and practice in oral problem solving through the debate format. The student is expected to attend a minimum of two debate tournaments.  
Prerequisite: None

**CMST 138**                      **Sp**                      **2.00 credits**  
**Intercollegiate Debate**

Provides investigation and practice in oral problem solving through the debate format. The student is expected to attend a minimum of two debate tournaments.  
Prerequisite: None

**CMST 226**                      **F**                      **2.00 credits**  
**Competitive Public Speaking**

Provides investigation and practice in background, format, procedures and evaluation criteria of forensics events. Students must participate in a minimum of two intercollegiate tournaments.  
Prerequisite: None

**CMST 227**                      **W**                      **2.00 credits**  
**Competitive Public Speaking**

Provides investigation and practice in background, format, procedures and evaluation criteria of forensics events. Students must participate in a minimum of two intercollegiate tournaments.  
Prerequisite: None

**CMST 228**                      **Sp**                      **2.00 credits**  
**Competitive Public Speaking**

Provides investigation and practice in background, format, procedures and evaluation criteria of forensics events. Students must participate in a minimum of two intercollegiate tournaments.  
Prerequisite: None

**CMST 236**                      **F**                      **2.00 credits**  
**Intercollegiate Debate**

Provides investigation and practice in oral problem solving through the debate format. The student is expected to attend a minimum of two debate tournaments.  
Prerequisite: None

**CMST 237**                      **W**                      **2.00 credits**  
**Intercollegiate Debate**

Provides investigation and practice in oral problem solving through the debate format. The student is expected to attend a minimum of two debate tournaments.  
Prerequisite: None

**CMST 238** Sp 2.00 credits

**Intercollegiate Debate**

Provides investigation and practice in oral problem solving through the debate format. The student is expected to attend a minimum of two debate tournaments.

Prerequisite: None

**CMST 240** Sp 5.00 credits

**Rhetorical Criticism & Popular Culture: DIV**

Introduces methods of rhetorical criticism including neo-Aristotelian, dramatic, Marxist, and feminist. Applies methods to popular culture artifacts (e.g., film, television, advertising, video games, and graphic novels). Themes include how popular culture influences life by defining cultural, gender, class and race roles. Students will apply the rhetorical criticism methods to identify persuasion in popular culture that influences their thoughts, beliefs, and actions.

Prerequisite: ENGL& 101 or equivalent.

**CMST 250** W 5.00 credits

**Intercultural Communication: DIV**

Examines the intercultural aspects of human communication. Emphasizes the significance of communicating across cultural lines of cultural differences in today's world. Focuses on cultural identity, differing behaviors and values, historical context, language and nonverbal expression, intercultural transitions, and conflict. Emphasizes application of theory and skills designed to increase competence in intercultural communication. Meets the diversity requirement.

Prerequisite: None

**CMST 288** 1.00-15.00 credits

**Cooperative Work Experience**

Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.

Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**CMST 299** 1.00-10.00 credits

**Independent Study**

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisite: By instructor permission only.

## Computer Science (CS)

**CS 110** S,F,W,Sp 3.00 credits

**Introduction To Microcomputer Applications**

Introduces the student to microcomputers and software applications. Windows, word processing, and electronic spreadsheets basics are presented.

Prerequisite: Ability to use a keyboard

**CS 170** F,W,Sp 5.00 credits

**Fundamentals of Computer Programming**

Offers an introduction to computer programming concepts and the development of applications. Program development, style, testing, and documentation are presented, discussed and applied using the C++ programming language. This course is a beginning course for CS majors and others, such as engineering transfer students, wishing an introduction to structured computer programming.

Prerequisites: MATH 089 or TECH 089 or MATH 097 with a grade of C or better and knowledge of Windows is required; or instructor permission.

**CS 175** Sp 5.00 credits

**Event-Driven Programming**

Offers an introduction to designing and implementing Windows applications using Visual Basic. Concepts involving event-driven programming, graphical user interface design, and algorithm implementation are covered.

Prerequisite: CS 170 (was CIS 180) with a grade of C or better, or instructor permission.

**CS 208** W 5.00 credits

**Introduction to Management Information Systems**

Introduction to the principles, roles, and application of Management Information Systems (MIS) in business. Investigations into MIS include hands-on lab experiences and case studies.

Prerequisite: BUS& 101, ENGL& 101, or instructor permission. CS 110 recommended.

**CS 270** S,F,Sp 5.00 credits

**Data Structures I**

Offers a detailed study of structured and object-oriented programming, including algorithms, searching and sorting, and data structures using the programming language C++.

Prerequisite: MATH 099 or TECH 099 and CS 170, both with a grade of C or better, or instructor permission.

**CS 275** W,Sp 5.00 credits

**Object-Oriented Programming**

Offers an introduction to the object-oriented programming paradigm using Java. Various object-oriented programming concepts will be discussed. Object-oriented programs will be developed and implemented.

Prerequisite: CS 170 with a grade of C or better, or instructor permission.

**CS 280** **S,Sp** **5.00 credits**  
**Advanced Data Structures** **REEL**

Offers a detailed study of advanced data structures, including the analysis of algorithms and object-oriented programming using the programming language C++. Prerequisites: CS 270 and MATH& 141 (was MATH 112), both with a grade of C or better, or instructor's permission.

**CS 281** **5.00 credits**  
**Digital Design and Computer Organization** **REEL**

Introduces elementary digital logic design and the organization of computers. Prerequisites: MATH& 141 (was MATH 112) and CS 270, both with a grade of C or better, or instructor permission.

**CS 282** **5.00 credits**  
**Assembly Language Programming (was** **REEL**  
**Microprocess.)**

Introduces protected-mode assembly language programming. Covers assembly language concepts and code in the context of either 'C' or C+'. Prerequisites: CS 281 with a grade of C or better, or instructor permission.

**CS 285** **S,Sp** **5.00 credits**  
**Programming Tools** **REEL**

Covers tools and techniques which facilitate programming and debugging, including debuggers, profilers, scripting, and C and C++ programming under the Linux operating system. Formerly known as CIS 235. Prerequisite: CS 270 with a grade of C or better, or instructor permission.

**CS 288** **1.00-15.00 credits**  
**Cooperative Work Experience**

Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.

Prerequisites: Instructor or Cooperative Education Coordinator permission. Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**CS 299** **1.00-10.00 credits**  
**Independent Study**

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisites: By instructor permission only.

## Criminal Justice (CJ)

**CJ& 101** **F,W,Sp** **5.00 credits**  
**Introduction to Criminal Justice** **SOCS**

Introduces and provides an overview of the various agencies involved in the administration of criminal justice, including local, state, and federal agencies as well as a history of police and corrections. Students will study how our criminal justice system evolved and how it functions, examined from the perspective of the Constitution through the criminalization process of investigation, arrest, trial, and post-trial procedures. (Formerly known as ADMJ 186)  
 Prerequisite: None

**CJ& 106** **Sp** **5.00 credits**  
**Juvenile Justice**

Covers the history and philosophy of juvenile justice in America and the impact of present societal and legal reforms on the juvenile justice system. Presents the various theories that support the creation, development, and continuance of juvenile justice systems, practices, and procedures in the United States.  
 Prerequisites: ENGL& 101 or higher, or instructor permission

**CJ& 110** **F** **5.00 credits**  
**Criminal Law** **SOCS**

Introduces substantive criminal law including basic principles of criminal liability in crimes against persons and property, constitutional basics as applied to criminal laws, defenses and accomplice liability. Elements of specific crimes as seen within criminal statutes and basic criminal procedure illustrated in the legal system are covered as well as analysis of court decisions interpreting statutes. The sociological basis for changes in criminal law are also considered.

Prerequisites: ENGL& 101 with a grade of C or higher or instructor permission.

**CJ 100** **15.00 credits**  
**Basic Law Enforcement**

Addresses criminal law, evidence, administration of justice, investigation, patrol, traffic, and juvenile procedures. This 16-week course, containing 450 hours of instruction, is designed to meet the standards of the Washington Law Enforcement Officers Training Commission basic school for newly employed officers. This course is open only to active law enforcement officers. (Formerly known as ADMJ 100)

Prerequisite: None

**CJ 154** **W** **5.00 credits**  
**The American Legal System**  
 Introduces students to the history and evolution of the federal and state constitutional basis of law, how the court systems within the United States work separately and together, and how the various components and occupations within our legal system function. Sociological reasons for the development of our legal system are also explored.  
 Prerequisites: ENGL& 101 with a grade of C or higher or instructor permission.

**CJ 180** **W** **5.00 credits**  
**Report Writing for Law Enforcement**  
 Covers the procedures of field note-taking, crime scene recording, preliminary investigation methods for writing law enforcement reports and fundamentals of police record systems. Prepares the student to write effective and concise reports, using observation, note-taking and excellent writing skills.  
 Prerequisites: ENGL& 101 with a grade of C or higher or instructor permission.

**CJ 184** **W** **5.00 credits**  
**Administration of Justice**  
 Introduces students to the history, evolution, components and function of criminal procedure in the United States courts, from arrest through the appeals process, and touching on victim's rights. Gives students a perspective of the complexities and intricacies of criminal procedure and punishment in light of sociological norms and change, the U.S. Constitution, state and federal statutes, rules and practice.  
 Prerequisites: ENGL& 101 with a grade of C or higher or instructor permission.

**CJ 185** **Sp** **5.00 credits**  
**Community Policing**  
 Covers the evolution of community policing. It will address the need to understand and involve the community; communicating with diverse populations; building partnerships with the media and bringing youths into community policing. The course will focus on community policing, gangs, and preventing violence.  
 Prerequisite: None

**CJ 187** **3.00 credits**  
**Crisis Intervention for Professionals**  
 Provides a basic multidisciplinary understanding of what a mental disorder/illness is and how to help a person experiencing a mental health crisis. De-escalation and communication techniques specific to professions such as education, medicine, and law enforcement - anyone who may encounter persons experiencing a mental health crisis - will be the focus of lecture and group discussions.  
 Prerequisites: None

**CJ 260** **W,Sp** **5.00 credits**  
**Physical Evidence and Criminalistics**  
 Studies collection and preservation of physical evidence, scientific aids, modus operandi, and crime scene search and includes examination of physical evidence and evaluation of findings in terms of legal questions involved. The course also surveys problems relating to homicide, drugs, arson, and burglary. (Formerly known as ADMJ 260)  
 Prerequisite: None

**CJ 286** **5.00 credits**  
**Criminal Law Administration**  
 Provides a study of legal limitations on law enforcement practices and procedures, including analysis of eye-witness identification procedures, criminal interrogations and confessions, the law of arrest, the exclusionary rule, search and seizure, and the constitutional limitations on legislative power to create and define criminal offenses. (Formerly known as ADMJ 286)  
 Prerequisite: None

**CJ 288** **1.00-15.00 credits**  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission  
 Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**CJ 299** **1.00-10.00 credits**  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisites: By instructor permission only.

## Dance (DANCE)

**DANCE 100** **2.00 credits**  
**Introduction to Dance** **HUM, PERF**  
 Students will study concepts and practice the fundamentals of ballet, modern, and jazz dance. Students will participate in some physical exercise including a full body warm-up to begin class. Prior dance experience is not necessary. Students will learn short dance combinations involving body awareness, mental and physical discipline, balance, body toning, strength and flexibility as well as rhythmic awareness.  
 Prerequisite: None

**DANCE 105** **2.00 credits**  
**Introduction to Jazz Dance** **HUM, PERF**  
 Studies the concepts relevant to movement and practices the fundamentals of jazz dance. Students will learn short jazz dance combinations involving body awareness, mental and physical discipline, balance, body toning, strength, flexibility, and rhythmic awareness. Prior dance experience is not necessary.  
 Prerequisite: None.

**DANCE 110** **2.00 credits**  
**Introduction to Tap Dance** **HUM, PERF**  
 Introduces fundamentals of tap dance. Students will learn short dance combinations involving body awareness, mental and physical discipline, balance, strength and rhythmic awareness. Students will participate in physical exercise while dancing. Classes incorporate a full body warm-up including stretching, balance, and leg strengthening exercises providing a moderate cardio exercise. Prior dance experience is not necessary.  
 Prerequisite: None

**DANCE 151** **1.50 credits**  
**Show Dance I** **HUM, PERF**  
 Covers the fundamental techniques and principles of integrating voice, music and dance into a performance show choir. Students will sing (from memory) and perform beginner/intermediate choreography of music from a variety of styles ranging from Broadway and Jazz to Contemporary music. Ensembles perform a minimum of 1 concert per quarter, and all performances are mandatory. This course is designed for Music Majors, Dance Majors and Theatre Majors planning to transfer and complete a four-year degree in music, dance or theatre; or for those students desiring to participate in a song and dance performance choir.  
 Prerequisites: There are no prerequisites for this course; students can step into the sequence at any time. Instructor permission required.

**DANCE 152** **1.50 credits**  
**Show Dance II** **HUM, PERF**  
 Demonstrates the fundamental techniques and principles of integrating voice, music and dance into a performance show choir. Students will sing (from memory) and perform beginner/intermediate choreography of music from a variety of styles ranging from Broadway and Jazz to Contemporary music. Ensembles perform a minimum of 1 concert per quarter, and all performances are mandatory. This course can be taken up to 2 times. This course is designed for Music Majors, Dance Majors and Theatre Majors planning to transfer and complete a four-year degree in music, dance or theatre; or for those students desiring to participate in a song and dance performance choir.  
 Prerequisites: There are no prerequisites for this course; students can step into the sequence at any time. Instructor permission required.

**DANCE 153** **1.50 credits**  
**Show Dance III** **HUM, PERF**  
 Explores the fundamental techniques and principles of integrating voice, music and dance into a performance show choir. Students will sing (from memory) and perform beginner/intermediate choreography of music from a variety of styles ranging from Broadway and Jazz to Contemporary music. Ensembles perform a minimum of 1 concert per quarter, and all performances are mandatory. This course can be taken up to 2 times. This course will transfer to any four-year institution as an Elective or a Humanities credit.  
 Prerequisites: There are no prerequisites for this course; students can step into the sequence at any time. Instructor permission required.

**DANCE 197** **1.00-5.00 credits**  
**Rehearsal and Performance I**  
 Provides experience for students who participate in dance performances and performing arts productions not associated with current enrollment in a dance course. This includes dancers, choreographers, designers, technicians, and support personnel. Students must successfully complete the rehearsal process through the final performance.  
 Prerequisite: Instructor permission.

**DANCE 251** **1.50 credits**  
**Show Dance IV** **HUM, PERF**  
 Distinguish the fundamental techniques and principles of integrating voice, music and dance into a performance show choir. Students will sing (from memory) and perform beginner/intermediate choreography of music from a variety of styles ranging from Broadway and Jazz to Contemporary music. Ensembles perform a minimum of 1 concert per quarter, and all performances are mandatory. This course can be taken up to 2 times. This course will transfer to any four-year institution as an Elective or a Humanities credit.  
 Prerequisites: There are no prerequisites for this course; students can step into the sequence at any time. Instructor permission required.

**DANCE 252** **1.50 credits**  
**Show Dance V** **HUM, PERF**  
 Expands on the fundamental techniques and principles of integrating voice, music and dance into a performance show choir. Students will sing (from memory) and perform beginner/intermediate choreography of music from a variety of styles ranging from Broadway and Jazz to Contemporary music. Ensembles perform a minimum of 1 concert per quarter, and all performances are mandatory. This course can be taken up to 2 times. This course will transfer to any four-year institution as an Elective or a Humanities credit.  
 Prerequisites: There are no prerequisites for this course; students can step into the sequence at any time. Instructor permission required.

**DANCE 253** **1.50 credits**  
**Show Dance VI** **HUM, PERF**

Further expand on the fundamental techniques and principles of integrating voice, music and dance into a performance show choir. Students will sing (from memory) and perform beginner/intermediate choreography of music from a variety of styles ranging from Broadway and Jazz to Contemporary music. Ensembles perform a minimum of 1 concert per quarter, and all performances are mandatory. This course can be taken up to 2 times. This course will transfer to any four-year institution as an Elective or a Humanities credit.

Prerequisites: There are no prerequisites for this course; students can step into the sequence at any time. Instructor permission required.

**DANCE 288** **1.00-15.00 credits**  
**Cooperative Work Experience**

Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.

Prerequisites: Instructor or Cooperative Education Coordinator permission. Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**DANCE 299** **1.00-10.00 credits**  
**Independent Study**

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisites: By instructor permission only.

## Diesel and Heavy Equipment Technology (DHET)

**DHET 100** **S,F** **5.00 credits**  
**Essentials of Mechanics** **REEL**

Develops beginning mechanical skills and knowledge essential to successful completion of the automotive and/or diesel technology program. Includes shop safety, fasteners, measurements, cutting tools, lifting, tool usage, shop orientation, manuals (including computer retrieval systems), bearings and seals, and special emphasis on preventative/predictive maintenance. This is an introductory course for beginning students of Automotive or Diesel Technology. Course can be waived if student has completed principles of technology and auto program in high school.

Prerequisite: None

**DHET 104** **W** **15.00 credits**  
**Electrical Systems** **REEL**

Introduces the basics of electricity through the electrical schematic use and basic troubleshooting and repair. Emphasizes the measurement of volts, amperes, and ohms in various types of circuits using a digital multimeter. Covers application and testing of various circuit components such as switches, relays and circuit protection devices. Presents theory, diagnosis and repair of vehicle electrical systems, including batteries, starting systems, charging systems, instrumentation and warning devices, lighting systems, power accessories (e.g. power windows, power seats), computer operation and circuit analysis.

Prerequisites: MFG 105 Industrial Safety, HLTH 105 First Aid/CPR/Bloodborne Pathogens

**DHET 105** **S,Sp** **5.00 credits**  
**Vehicle Climate Control** **REEL**

Introduces the theory of operation, design, diagnosis and repair of both manual and automatic heating, ventilation and air conditioning systems (HVAC) used in automobiles, trucks and heavy equipment. Emphasizes component identifications, performance testing, recovering, evacuation and recharging. Covers materials necessary to pass ASE (A7) test.

Prerequisite: AMTC 104 or DHET 104 or Instructor Permission

**DHET 114** **Sp** **15.00 credits**  
**Heavy Duty Brakes and Chassis** **REEL**

Covers the theory and repair of air and hydraulic braking systems commonly found on trucks equipment, cranes and winches. Emphasis will be placed on truck S-cam braking systems. Also covered is the repair, maintenance and diagnosis of truck and equipment chassis and undercarriage.

Prerequisites: MFG 105 Industrial Safety, HLTH 105 First Aid/CPR/Bloodborne Pathogens

**DHET 141** **F** **4.00 credits**  
**Hydraulics I** **REEL**

Presents the basic principles, operation, and maintenance of mobile hydraulic systems. Topics include component function, application, testing, and troubleshooting.

Prerequisites: None. Concurrent requirements: DHET 142 or instructor permission.

**DHET 142** **F** **6.00 credits**  
**Hydraulics II** **REEL**

Provides a more in-depth look at hydraulic pumps, valves, and actuators in mobile hydraulic systems. Emphasizes testing, diagnosis and the repair of hydraulic systems.

Prerequisite: DHET 141 or MFG 140 or concurrent enrollment.

**DHET 210** **W** **15.00 credits**  
**Diesel Engine Rebuild** **REEL**

Presents the operation, maintenance, repair and overhaul of diesel engines used in heavy equipment.

Prerequisites: None

**DHET 215** F 15.00 credits  
**Heavy Duty Engine Performance** REEL  
 Studies factors and components that affect diesel engine performance, fuel economy, and exhaust emissions. Includes fuel system and valve train problem diagnosis, maintenance, repair, and adjustment.  
 Prerequisite: DHET 104 or instructor permission.

**DHET 220** Sp 10.00 credits  
**Heavy Duty Power Trains** REEL  
 Provides study of the principles of operation, maintenance, problem diagnosis, and repair of clutch systems, manual transmission, automatic transmission, power take-off, transfer cases, drive lines, differential assemblies and final drives used in trucks and heavy equipment.  
 Prerequisite: None

**DHET 228** S,F,W,Sp 4.00 credits  
**Commercial Driving** REEL  
 Prepares students for the Washington State Class A commercial driver's license exam.  
 Prerequisites: None

**DHET 229** S,F,W,Sp 6.00 credits  
**Commercial Truck Driving Operation** REEL  
 Provides the required 120 hours of truck driving skill development to prepare students for the Washington State Class A commercial driver's license exam.  
 Prerequisites: DHET 228. Student must have DOT physical and pass the DOT alcohol and substance abuse test. Student must have a commercial learner's permit.

**DHET 230** Sp 5.00 credits  
**Advanced Shop Practices** REEL  
 Provides a review of key skills learned in previous Diesel program courses and will reinforce industry shop practices. Emphasis will be placed on time management and documentation. Designed as a course for Diesel AAS students.  
 Prerequisite: Completion of 60 DHET credits.

**DHET 240** F 5.00 credits  
**Fluid Power/Electrical Theory and Design** REEL  
 Explores the theory and design principles of fluid power and electrical systems. Various mathematical formulas will be used to help students understand the how and why systems perform as they do. Students will be taken through the design process for a task of their choosing. This process will include force estimation and measurement, calculating component specifications and schematic drawing.  
 Prerequisites: Math 078/079

**DHET 288** 1.00-15.00 credits  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**DHET 299** 1.00-10.00 credits  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisites: By instructor permission only.

## Drafting (DRFT)

**DRFT 107** 1.00-3.00 credits  
**Technical Graphics** REEL  
 Involves students in the use of techniques and standard practices of technical graphics so that design ideas can be adequately communicated and produced. Includes free-hand sketching, use of drafting instruments, line work, lettering, orthogonal projections, pictorials, basic dimensioning, and an introduction to computer-aided design drafting.  
 Prerequisite: None

**DRFT 151** 1.00-3.00 credits  
**Introduction to Computer-Aided Drafting (CAD)** REEL  
 Introduces drafting operations as applied to computer aided drafting (CAD) and the commands and procedures used to create, edit, and plot two-dimensional CAD drawings. Drawing productivity, accuracy, and organizational techniques are emphasized in this course. Assignments will be chosen from various drafting disciplines.  
 Prerequisite: CS 110 or instructor permission

**DRFT 210** 1.00-3.00 credits  
**Advanced Technical Graphics** REEL  
 Involves students in the use of techniques and standard practices of technical graphics towards the solution of technical design problems, and to communicate and produce design ideas. Includes dimensioning and tolerancing, production of working drawings, and advanced computer-aided design drawing. This course also introduces students to electronic, piping, and welding drawings.  
 Prerequisite: DRFT 107 or ENGR& 121 (was ENGR 111).

**DRFT 252** **1.00-3.00 credits**  
**3-D Computer Aided Drafting** **REEL**  
 Involves students in the use of parametric solid modeling towards design on three-dimensional part and assembly models. Includes creating part and assembly drawings from 3D models, modifications throughout the design process, and comparing the many parametric solid modeling software packages available.  
 Prerequisite: DRFT 210

**DRFT 260** **3.00 credits**  
**Survey of Civil and Architectural Graphics** **REEL**  
 A survey course that introduces the student in the use of the drafting standards used by Civil and Architectural disciplines. The concepts of these standards will include: structural graphics, map drafting, architectural drafting, and welding and piping drafting.  
 Prerequisite: DRFT 107 or ENGR& 121 (was ENGR 111) or instructor permission.

**DRFT 288** **1.00-15.00 credits**  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**DRFT 299** **1.00-10.00 credits**  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisites: By instructor permission only.

## Drama (DRMA)

**DRMA& 101** **5.00 credits**  
**Intro to Theatre** **HUM**  
 Covers the development of theatre in western society from the ancient Greece up to today. The various areas of theatre required to produce a play are studied: set, light and costume design; various approaches to acting including working in small groups to understand the complexity of theatre in society today. Students read, write directed entries and seminar on plays from various playwrights to show how plays connect to the times in which they were written and how plays reflect upon and shape community values. The Center Stage production for the quarter focuses on a single play using acting, directing, designing, producing and its historical and social context to illustrate the complex nature of taking a play from the printed page to the stage.  
 Prerequisite: None.

**DRMA 106** **5.00 credits**  
**Introduction to Acting I** **HUM, PERF**  
 A beginning acting course involving movement, voice production, improvisation, and scene work. Group work is used to allow each student to be comfortable in interactions with other people. Students are not required to be in the current Center Stage production. No prior acting is required. (Formerly known as DRAM 106)  
 Prerequisite: None

**DRMA 107** **5.00 credits**  
**Introduction to Acting II** **HUM, PERF**  
 A beginning acting course involving movement, voice production, improvisation, and scene work. Group work is used to allow each student to be comfortable in interactions with other people. Students are not required to be in the current Center Stage production. No prior acting is required.  
 Prerequisite: None

**DRMA 108** **5.00 credits**  
**Introduction to Acting III** **HUM, PERF**  
 A beginning acting course involving movement, voice production, improvisation, and scene work. Group work is used to allow each student to be comfortable in interactions with other people. Students are not required to be in the current Center Stage production. No prior acting is required.  
 Prerequisite: None

**DRMA 116** **5.00 credits**  
**Stage Crafts I**  
 Teaches technical areas involved in producing a play through lecture and application of skills learned in selected technical areas from design to construction to production. Practical experience is gained in sets, costumes, lights, and by serving on stage crew for the current Center Stage production.  
 Prerequisite: None

**DRMA 117** **5.00 credits**  
**Stage Crafts II**  
 Teaches technical areas involved in producing a play through lecture and application of skills learned in selected technical areas from design to construction to production. Practical experience is gained in sets, costumes, lights, and by serving on stage crew for the current Center Stage production.  
 Prerequisite: None



**DRMA 118** **5.00 credits**  
**Stage Crafts III**

Teaches technical areas involved in producing a play through lecture and application of skills learned in selected technical areas from design to construction to production. Practical experience is gained in sets, costumes, lights, and by serving on stage crew for the current Center Stage production. Each course (DRMA 116, 117, 118) may be taken separately or in sequence; together they complete a basic study of technical theatre. Center Stage production for the quarter is used to apply technical aspects of stagecrafts to the play. Serving on the stage crew for the production is required. Prerequisite: None

**DRMA 119** **5.00 credits**  
**Introduction To Theatre Design And Technology**

Introduces set, costume and light design, using the current production as the basis for exploring technology in the theatre. Current theatre practices using computer programs for each discipline in both analog and digital format are applied. Included are computer assisted set, and light and sound production in both analog and digital formats. Computer programs include Vector works, Adobe Soundbooth, Sketch Up Pro, and Show Cue System. Practical experience is gained through application of principles learned by using theatre facilities of Center Stage and the Wollenberg Concert Hall and by serving on stage crew for the current Center Stage production. Prerequisite: None

**DRMA 147** **2.00 credits**  
**Audition Techniques**

Introduces audition techniques through preparation, performance and workshops of monologues and musical theatre repertoire. Focuses on interpretation, stage presence, performance etiquette and repertoire selection. Additionally, this course will cultivate successful audition techniques and create a market audition package including, headshot, resume, and portfolio. Prerequisite: None

**DRMA 196** **1.00-5.00 credits**  
**Rehearsal and Performance I**

Credit and experience for students who participate in the Center Stage production for the quarter. This includes actors, directors, designers, technicians, and support personnel. Students must successfully complete the rehearsal process through the final performance. Prerequisite: None

**DRMA 197** **1.00-5.00 credits**  
**Rehearsal and Performance II**

Credit and experience for students who participate in the Center Stage production for the quarter. This includes actors, directors, designers, technicians, and support personnel. Students must successfully complete the rehearsal process through the final performance. Prerequisite: None

**DRMA 198** **1.00-5.00 credits**  
**Rehearsal and Performance III**

Credit and experience for students who participate in the Center Stage production for the quarter. This includes actors, directors, designers, technicians, and support personnel. Students must successfully complete the rehearsal process through the final performance. Prerequisite: None

**DRMA 206** **5.00 credits**  
**Acting I**

Emphasizes development and application of acting concepts used in creating a role. Includes voice, physical movement, audition techniques, styles and periods of acting. Designed for the advanced acting student. Students are not required to be in the current Center Stage production. Prerequisite: None

**DRMA 207** **5.00 credits**  
**Acting II**

Emphasizes development and application of acting concepts used in creating a role. Includes voice, physical movement, audition techniques, styles and periods of acting. Designed for the advanced acting student. Students are not required to be in the current Center Stage production. Prerequisite: None

**DRMA 208** **5.00 credits**  
**Acting III**

Emphasizes development and application of acting concepts used in creating a role. Includes voice, physical movement, audition techniques, styles and periods of acting. Designed for the advanced acting student. Students are not required to be in the current Center Stage production. Prerequisite: None

**DRMA 210** **5.00 credits**  
**Masks**

Introduces masks as a component of actor training for use on the stage and for understanding various cultures throughout the world. The mask helps develop the ability to concentrate, diminish self-consciousness, center the body, expand the body awareness, and develop outward expressions through physicalization, improvisation and scene work. Prerequisite: None

**DRMA 288** **1.00-15.00 credits**  
**Cooperative Work Experience**

Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success. Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**DRMA 296** **1.00-5.00 credits**  
**Rehearsal and Performance IV**

Credit and experience for students who participate in the Center Stage production for the quarter. This includes actors, directors, designers, technicians, and support personnel. Students must successfully complete the rehearsal process through the final performance.

Prerequisite: None

**DRMA 297** **1.00-5.00 credits**  
**Rehearsal and Performance V**

Credit and experience for students who participate in the Center Stage production for the quarter. This includes actors, directors, designers, technicians, and support personnel. Students must successfully complete the rehearsal process through the final performance.

Prerequisite: None.

**DRMA 298** **1.00-5.00 credits**  
**Rehearsal and Performance VI**

Credit and experience for students who participate in the Center Stage production for the quarter. This includes actors, directors, designers, technicians, and support personnel. Students must successfully complete the rehearsal process through the final performance.

Prerequisite: None

**DRMA 299** **1.00-10.00 credits**  
**Independent Study**

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisites: By instructor permission only.

## Early Childhood Education (ECED)

**ECED& 100** **S,F,W,Sp** **3.00 credits**  
**Child Care Basics**

Covers licensing requirements for early learning lead teachers and family home child care providers, STARS 30 hour basics course recognized in the MERIT system. Topics include child growth/development, cultural responsiveness, community resources, guidance, health/safety/nutrition and professional practices.

**ECED& 105** **S,W** **5.00 credits**  
**Introduction to Early Childhood Education**

Explores the foundations of early childhood education. Examine theories defining the field, issues, trends, best practices, and program models. Observe children, professionals and programs in action.

Prerequisites: None Concurrent requirements: None

**ECED& 107** **F,Sp** **5.00 credits**  
**Health/Safety/Nutrition** **REEL**

Introduces implementation of equitable health, safety and nutrition standards for the growing child in group care. Focus on federal Child Care Block Grant funding (CCDF) requirements, WA state licensing and Head Start Performance standards. Develop skills necessary to keep children healthy & safe, report abuse & neglect, and connect families to community resources. Students will also obtain First Aid/CPR & Bloodborne Pathogen certification.

Prerequisites: None Concurrent requirements: None

**ECED& 120** **F,W,Sp** **2.00 credits**  
**Practicum-Nurturing Rel**

Presents the fundamentals of how to establish nurturing, supportive relationships with all children and professional peers in an early learning setting. Focus on children's health & safety, promoting growth & development, and creating a culturally responsive environment.

Prerequisites: None Concurrent requirements: None

**ECED& 132** **W** **3.00 credits**  
**Infants/Toddlers Care** **REEL**

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 retentive care.

Prerequisites: None Concurrent requirements: None

**ECED& 134** **W** **3.00 credits**  
**Family Child Care** **REEL**

Explores how to manage a family childcare program. Topics include: licensing requirements, record-keeping, relationship building, communication strategies, guiding behavior, and promoting growth and development.

Prerequisites: None Concurrent requirements: None

**ECED& 139** **W** **3.00 credits**  
**Administration of ECE** **REEL**

Covers administrative skills required to develop, operate, manage and improve early childhood education and care programs. Discusses basic business management skills. Explores and supports for meeting Washington State licensing and professional NAEYC standards.

Prerequisites: None Concurrent requirements: None

**ECED& 160** **F** **5.00 credits**  
**Curriculum Development** **REEL**

Investigates learning theory, program planning, tools and methods for curriculum development promoting language, fine/gross motor, social-emotional, cognitive and creative skills and growth in children birth through age 8 utilizing developmentally appropriate and culturally responsive practice.

Prerequisites: None Concurrent requirements: None

**ECED& 170**                      **W**                      **3.00 credits**  
**Learning Environments**                      **REEL**

Focuses on the adult's role in designing, evaluating, and improving indoor and outdoor environments that ensure quality learning, nurturing experiences, and optimize the development of young children.

Prerequisite: None Concurrent requirements: None

**ECED& 180**                      **Sp**                      **3.00 credits**  
**Lang/ Literacy Develop**

Examines 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.

Prerequisites: None

**ECED& 190**                      **F,Sp**                      **3.00 credits**  
**Observation/Assessment**                      **REEL**

Covers collecting and recording observation 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.

Prerequisites: None Concurrent requirements: None

**ECED 116**    **1.00 credit**  
**Guiding Behavior of Young Children**

Focuses on strengthening relationship-based care as an essential component of positive guidance. Participants will identify their own personal view or 'image' of the child and correlates this image with beliefs about guidance. Strategies to encourage caregivers to bond with children in their care will be introduced.

Prerequisite: None

**ECED 117**    **1.00 credit**  
**Building Bridges: The Encouraging Classroom**

Focuses on using the environment to support children's positive behavior, developmentally appropriate guidance practices, guidance versus punishment, and involving families to support children's social and emotional growth.

Prerequisite: None

**ECED 118**    **1.00 credit**  
**Building Bridges: Positive Guidance**

Focuses on positive communication and direct guidance techniques to support children's social/emotional development and strategies for specific challenging behaviors.

Prerequisite: None

**ECED 127**    **3.00 credits**  
**Practicum II/Curriculum**                      **REEL**

Integrates the practicum experience with Developmentally Appropriate Early Childhood observation techniques. Designed to increase objectivity and skill in recording the behavior of young children. Students are required to work in an Early Childhood setting and to plan and implement appropriate activities to facilitate observation and recording of behavior. Students will be observed by the instructor and meet with the instructor in weekly seminar sessions.

Prerequisite: ECED&190 with a grade of C or better, or instructor permission.

**ECED 128**    **3.00 credits**  
**Practicum III/Learning Stories**                      **REEL**

Refines and extends skills acquired in Practicum I and II and continues to develop skills required of persons with primary responsibility for groups of young children as outlined by the Washington State Skills Standards Project. Skills are practices in an early childhood setting.

Prerequisite: ECED&190 and ECED 127 with a grade of C or better, or instructor permission.

**ECED 136**    **1.00 credit**  
**Building Bridges: Infant/Toddler Social & Emotional Development**

Provides the early care and education professionals will learn about the emerging language of the young child, fostering secure caregiver-child relationships and the importance of culturally responsive partnerships with families.

Prerequisite: None.

**ECED 137**    **1.00 credit**  
**Building Bridges: Infant/Toddler Encouraging Healthy Physical Development**

Provides the early care and education professionals the components of quality infant/toddler care. This course will focus on care giving practices to support healthy and safe environments that support sensorimotor exploration. Participants will explore ways to partner with families to support the healthy development of the young child.

Prerequisite: None

**ECED 138**    **1.00 credit**  
**Building Bridges: Infant/Toddler Responsive Learning Environment**

Provides the early care and education professionals tools to create safe, nurturing, and engaging environments to support culturally responsive early learning, brain and language development in the earliest years.

Prerequisite: None

- ECED 186** **3.00 credits**  
**Social-Emotional Growth and Socialization**  
 Explores the development of children's social and emotional competence. Infants grow in the context of nurturing environments and their mental health involves the psychological balance of the infant-family system. Healthy social-emotional development in infancy underlies all other learning and is acquired in a social context. Strategies are discussed to assist early childhood professionals in becoming culturally competent and responsive teachers who develop nurturing relationships with both children and families.
- ECED 187** **3.00 credits**  
**Cognitive & Language Development-Infant&Toddler**  
 Explores the role of the care provider as a facilitator through observation and study in supporting cognitive and language development in infants and toddlers. Instructional strategies to foster language development including environmental design will be studied. Strategies are discussed to assist early childhood professionals in becoming culturally competent and responsive teachers who develop nurturing relationships with both children and families.  
 Prerequisite: None
- ECED 188** **3.00 credits**  
**Group Care for Infants & Toddlers**  
 Explores the importance of a child's attachment to primary care providers as a secure base for development. Emphasis will be given on creating a healthy, emotionally secure environment. Strategies are discussed to assist early childhood professionals in becoming culturally competent and responsive teachers who develop nurturing relationships with both children and families.  
 Prerequisite: None
- ECED 204** **3.00 credits**  
**Music and Movement for Young Children**  
 Provides ideas for creating movement and music programs appropriate for young children. The course emphasizes singing, movement, appropriate records, rhythm instruments, and other related media for creative activities throughout the day. Provides instruction on perceptual motor skills designed for young children.  
 Prerequisite: None
- ECED 219** **Sp** **3.00 credits**  
**Math, Science, and Technology** **REEL**  
 Investigates learning theory and its relationship to the development of fundamental concepts and skills used in the areas of math, science and technology. Explores how to create opportunities for children to recognize the presence of math and science in everyday activities that promote an interest in scientific thinking. Examines how the use of technology can enhance teaching methods and support active learning.  
 Prerequisites: None Concurrent requirements: None

- ECED 220** **3.00 credits**  
**Arts and Crafts for Young Children**  
 Prepares students to present a developmentally appropriate creative arts program to young children. Class will cover child developmental growth and the exploration of art process through media and materials.  
 Prerequisite: None

- ECED 261** **F** **3.00 credits**  
**Practicum IV/Principles** **REEL**  
 Students will study the guiding Principles of Early Childhood Education and will have the opportunity to gradually assume the role of a lead teacher with a group of young children. Students observe and plan activities under the guidance of a mentor teacher and will also attend agency staff meetings. This course requires 11 hours of lecture and 66 hours of clinical in an approved early childhood setting.  
 Prerequisites: EDUC& 115, EDUC& 130, ECED& 105, ECED& 107, ECED& 120, ECED& 190, completed with a C or better and ENGL 099 (was ENGL 100)

- ECED 262** **W** **3.00 credits**  
**Practicum V/Practice** **REEL**  
 Students will employ the guiding Practices of Early Childhood Education and will have the opportunity to assume the role of a lead teacher with a group of young children. Students observe and plan activities under the guidance of a mentor teacher and will also attend agency staff meetings. This course requires 11 hours of lecture and 66 hours of clinical in an approved early childhood setting.  
 Prerequisites: ECED 261

- ECED 263** **Sp** **3.00 credits**  
**Practicum VI/Professionalism** **REEL**  
 Students will explore the Profession Code of Conduct as outlined by the National Association of Education of Young Children (NAEYC) and its application in the workplace. Students will have the opportunity to assume an in-depth role of a lead teacher with a group of young children. Students observe, assess and plan activities under the guidance of a mentor teacher and will also attend agency staff meetings. This course requires 11 hours of lecture and 66 hours of clinical in an approved early childhood setting.  
 Prerequisites: ECED 262

- ECED 288** **1.00-15.00 credits**  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**ECED 299** **1.00-10.00 credits**  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisites: By instructor permission only.

**ECED 301** **F** **2.00 credits**  
**Field Experience I Theory (Non-Cert Option)**  
 Provides content to support and enhance ECED 311 Field Experience I. Topics include anti-bias education, reflective practice, state standards, effective instructional strategies, and implementing learning experiences across disciplines. Additional topics may be presented as needed. This course is taken concurrently with ECED 311.  
 Prerequisites: EDUC& 205 Concurrent requirement: ECED 311

**ECED 302** **W** **2.00 credits**  
**Field Experience II Theory (Non-Cert Option)**  
 Provides content to support and enhance ECED 312 Field Experience II. Topics include: Supporting Language and Literacy development, designing interdisciplinary learning opportunities, NAEYC Professional Code of Ethics, and school to family connections. Additional topics may be presented as needed. Taken concurrently with ECED 312.  
 Prerequisites: ECED 301 and ECED 311 Concurrent requirement: ECED 312

**ECED 303** **Sp** **2.00 credits**  
**Field Experience III Theory (Non-Cert Option)**  
 Provides content to support and enhance ECED 313 Field Experience III. Topics include: math acquisition and classroom management. Additional topics may be presented as needed. Taken concurrently with ECED 313.  
 Prerequisites: ECED 302 and ECED 312 Concurrent requirement: ECED 313

**ECED 311** **F** **4.00 credits**  
**Field Experience I (Non-Certificate Option)**  
 Provides the first of six experiences working in an education setting with children and their families who are culturally, linguistically and ability diverse, under the guidance of a program-selected teacher. Emphasizes developing a classroom community through an anti-bias approach. Incorporates the standards for professional teacher behavior as outlined by NAEYC. First course in a series of six ECED courses for the non-certificated option, taken concurrently with ECED 301.  
 Prerequisites: EDUC& 205 Concurrent requirements: ECED 301

**ECED 312** **W** **4.00 credits**  
**Field Experience II (Non-Certificate Option)**  
 Continues the field experience in an educational setting with children and their families who are culturally, linguistically, and ability diverse, under the guidance of a program-selected teacher. Emphasizes literacy and language acquisition, family engagement, and professional ethics. Second of six field experience courses for the non-certificate option, taken concurrently with ECED 302.  
 Prerequisites: ECED 301 and ECED 311 Concurrent requirement: ECED 302

**ECED 313** **Sp** **4.00 credits**  
**Field Experience III (Non-Certificate Option)**  
 Continues the field experience working in an educational setting with children and their families who are culturally, linguistically, and ability diverse under the guidance of a program-selected teacher. Emphasizes math acquisition and classroom management strategies. Third of six field experiences for the non-certificate option, taken concurrently with ECED 303.  
 Prerequisites: ECED 302 and ECED 312 Concurrent requirement: ECED 303

**ECED 401** **F** **2.00 credits**  
**Student Teaching I Theory (Non-Cert. Option)**  
 Provides content to support and enhance ECED 411 Student Teaching I. Topics include science inquiry, professional collaboration and positive guidance techniques in the early childhood setting. Additional topics may be presented as needed. Taken concurrently with ECED 411.  
 Prerequisites: ECED 303 and ECED 313 Concurrent requirement: ECED 411

**ECED 402** **W** **2.00 credits**  
**Student Teaching II Theory (Non-Cert. Option)**  
 Provides content to support and enhance ECED 412 Student Teaching II. Topics include social studies, assessing children's progress and differentiating instruction in the early childhood setting. Additional topics may be presented as needed. Taken concurrently with ECED 412.  
 Prerequisites: ECED 401 and ECED 411 Concurrent requirement: ECED 412

**ECED 403** **Sp** **2.00 credits**  
**Student Teaching III Theory (Non-Cert. Option)**  
 Provides content to support and enhance ECED 413 Student Teaching III. Topics include: literacy, professionalism and issues and trends in the early childhood setting. Additional topics may be presented as needed. Taken concurrently with ECED 413.  
 Prerequisites: ECED 402 and ECED 412 Concurrent requirement: ECED 413

**ECED 411 F 4.00 credits  
Student Teaching I (Non-Certificate Option)**

Advances the field experience working in an educational setting with children and their families who are culturally, linguistically, and ability diverse under the guidance of a program-selected teacher. Emphasizes science inquiry, professional collaboration and positive guidance techniques. Fourth of six field experiences for the non-certificate option. Taken concurrently with ECED 401. Prerequisites: ECED 303 and ECED 313 Concurrent requirement: ECED 401

**ECED 412 W 4.00 credits  
Student Teaching II (Non-Certificate Option)**

Advances the field experience to autonomous student teaching in an educational setting with children and their families who are culturally, linguistically, and ability diverse, under the guidance of a program-selected teacher. Emphasizes social studies, assessing children's progress and differentiating instruction in the early childhood setting. Fifth of six field experience courses for the non-certificate option. Taken concurrently with ECED 402.

Prerequisites: ECED 401 and ECED 411 Concurrent requirement: ECED 402

**ECED 413 Sp 4.00 credits  
Student Teaching III (Non-Certificate Option)**

Culminates the field experience with autonomous student teaching in an educational setting with children and their families who are culturally, linguistically, and ability diverse under the guidance of a program-selected teacher. Emphasizes literacy, professionalism and issues and trends in early childhood education. Sixth of six field experience courses for the non-certificate option. Taken concurrently with ECED 403.

Prerequisites: ECED 402 and ECED 412 Concurrent requirement: ECED 403

**ECED 439 Sp 4.00 credits  
Issues and Trends in Early Childhood Education**

Explores current issues and interests in the field of early childhood. Topics may include early childhood perspectives on contemporary issues and deeper investigation of topics covered in previous courses, such as adverse childhood experiences (ACE'S). Topics may include health care, war and political instability, poverty, geographic displacement, access to education and additional current issues.

Prerequisites: None Concurrent requirements: None

**ECED 79 1.00 credit  
Math Methodology for Educators I**

This methodology course strengthens student understanding of arithmetic of pre-algebra concepts including operations on signed numbers, operations on fractions, operations on decimals, ratio and proportions, exponents, measurement, and geometry to prepare the student to teach math standards to children age birth through age 8. Concurrent enrollment in MATH 078 required.

Prerequisite: None

**ECED 89 1.00 credit  
Math Methodology For Educators II**

This methodology course strengthens student understanding of arithmetic of basic algebra skills including properties of real numbers, solving equations and inequalities, graphing, and factoring to prepare student to teach math standards to children age birth through age 8. Concurrent enrollment in MATH 087 required.

Prerequisite: MATH 079 with a grade of C or better.

**ECED 99 1.00 credit  
Math Methodology for Educators III**

This methodology course strengthens student understanding of arithmetic of concepts covered in Elementary Algebra in greater depth to prepare students to teach math standards to children age birth through age 8. Concurrent enrollment in MATH 097 required.

Prerequisite: MATH 087 or 089 with a grade of C or higher.

## Earth Science (ERSI)

**ERSI 104 F 5.00 credits  
Introduction to Earth Sciences NSL**

Provides a comprehensive picture of Earth and its unique place in the universe by examining major concepts from geology, oceanography, meteorology, and astronomy. Topics include Earth-Sun relationships, plate tectonics, rock cycle, evolution of stars, composition and structure of atmosphere, hydrosphere, and lithosphere, characteristics of oceans, solar systems, and stars.

Prerequisite: None

**ERSI 105 F,W,Sp 5.00 credits  
Earth Systems NSL**

Presents a holistic view of Earth (our environments) as a system with emphasis on understanding the relationships of humans, atmosphere, hydrosphere, solid Earth, and biosphere. Major concepts are drawn from astronomy, meteorology, oceanography, geography, geology, biology, and ecology. Human's part, effects, and relationships within the global ecosystem and Earth Systems are analyzed, as well as our dependence and interconnections with natural resources. Includes lab.

Prerequisite: None

**ERSI 109** **5.00 credits**  
**Energy and Our Planet: Earth Sciences** **NSL**  
 Earth science is an explanation of the earth system and the energy that powers its subsystems. Concepts are from astronomy, meteorology, oceanography, geology, physical geography and ecology. Students will gain an understanding of the natural world and science, as well as develop skills to apply and teach how scientific principles apply to everyday life. Intended primarily for elementary education and early childhood education majors. Part of a three quarter sequence; students are not required to take entire sequence. Includes lab.  
 Prerequisite: None.

**ERSI 288** **1.00-15.00 credits**  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**ERSI 299** **1.00-10.00 credits**  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisites: By instructor permission only.

## Economics (ECON)

**ECON& 201** **S,F,W,Sp** **5.00 credits**  
**Micro Economics** **SOCS**  
 Introduces the characteristics of a market economy, focusing on price and output determination in individual product and resource markets, consumer behavior, the behavior of the firm, market structures, and comparative advantage.  
 Prerequisite: MATH 088 or TECH 088 or BUS 104 (was BSAD 104) and ENGL& 101 or BUS 190 (was BSAD 190).

**ECON& 202** **S,Sp** **5.00 credits**  
**Macro Economics** **SOCS**  
 Analyzes the aggregate economy focusing on: national income accounting, inflation, business cycle theory, unemployment, growth, money and banking, fiscal and monetary policies, international trade, and finance.  
 Prerequisite: ECON& 201 with a grade of C or better.

**ECON 104** **5.00 credits**  
**Contemporary Economic Issues** **SOCS**  
 Introduces basic economic models and applies these models to current economic problems. Addresses related policy options and choices.  
 Prerequisite: MATH 079 or TECH 079

**ECON 105** **S,F,W,Sp** **5.00 credits**  
**Introduction to Economics** **SOCS**  
 Analyzes basic microeconomic and macroeconomic principles, focusing on the market and price system, theory of the firm, consumer behavior, inflation, unemployment, total output, money and banking, the role of government, and international trade.  
 Prerequisites: None.

**ECON 288** **1.00-15.00 credits**  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**ECON 299** **1.00-10.00 credits**  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisites: By instructor permission only.

## Education (EDUC)

**EDUC& 101** **3.00 credits**  
**Paraeducator Basics**  
 Introduces the roles and responsibilities of the Paraeducator in the K-12 educational system. Explores techniques supporting instruction, professional and ethical practices, positive and safe learning environments, effective communication and teamwork.  
 Prerequisites: None Concurrent requirements: None

**EDUC& 115** **F,W,Sp** **5.00 credits**  
**Child Development** **SOCS**  
 Builds the foundation for explaining how children develop in all domains, conception through early adolescence. Explores various developmental theories, methods for documenting growth, and impact of brain development. Topics addressed include stress, trauma, culture, race, gender identity, socioeconomic status, family status, language, and health issues.  
 Prerequisites: None Concurrent requirements: None

**EDUC& 130** **F,Sp** **3.00 credits**  
**Guiding Behavior** **REEL**  
 Examines the principles and theories promoting social competence in young children and creating safe learning environments. Develops skills promoting effective interactions, providing positive individual guidance, and enhancing group experiences.  
 Prerequisite: None

**EDUC& 136** **F** **3.00 credits**  
**School Age Care** **REEL**

Discusses the provision of developmentally appropriate and culturally relevant activities/care for children ages 5-12 in a variety of settings. Topics include: implementation of curriculum, preparation of environments, building relationships, guiding cognitive and social emotional development, and community outreach.

Prerequisites: None Concurrent requirements: None

**EDUC& 150** **Sp** **3.00 credits**  
**Child/Family/Community**

Discusses the integration of 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.

Prerequisites: None Concurrent requirements: None

**EDUC& 203** **3.00 credits**  
**Exceptional Child** **REEL**

Provides an overview of programs for young children with special needs, including current issues and trends, the identification and assessment process, the IEP/IFSP process, and a look at some intervention and instructional strategies for working with young children with special needs.

Prerequisite: None

**EDUC& 204** **W** **5.00 credits**  
**Inclusive Education: Birth through 21 Focus**

Introduces the recognition and identification of exceptionality in children from birth through high school. Includes policies and regulations concerning state and federal provisions of special education and related services, as well as adaptations for serving students with special needs in general education classrooms.

Prerequisite: None

**EDUC& 205** **F,W,Sp** **5.00 credits**  
**Introduction to Education w/Field Experience:**  
**DIV** **DIV, ELEC**

Introduces the field of education. Integrates readings, lectures, discussions, written assignments, student presentations, guest speakers, and participation in actual elementary classrooms to provide students with a broad survey of the K-12 educational system. Addresses the multicultural and diverse experiences of students in the educational setting.

Prerequisites: None Concurrent requirements: None

**EDUC 110** **S,F,W,Sp** **1.00 credit**  
**Advising Institute** **REEL**

Provides advisors with an overview of basic advising responsibilities and functions including, but not limited to, working with My Academic Plans, Program Planners, LCC advising processes. Introduces the advising handbook, Faculty advising concepts, advising tools, and founding principles of the art of advising according to the National ACademic ADvising Association (NACADA).

Prerequisite: None

**EDUC 288** **1.00-15.00 credits**  
**Cooperative Work Experience**

Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.

Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**EDUC 299** **1.00-10.00 credits**  
**Independent Study**

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisites: By instructor permission only.

**EDUC 301** **F** **2.00 credits**  
**Field Experience I Theory**

Provides content to support and enhance EDUC 311 Field Experience I. Topics include anti-bias education, reflective practice, state standards, effective instructional strategies including the use of the creative arts, and implementing learning experiences across disciplines. Additional topics may be presented as needed. Taken concurrently with EDUC 311.

Prerequisites: EDUC& 205 Concurrent requirements: EDUC 311

**EDUC 302** **W** **2.00 credits**  
**Field Experience II Theory**

Provides content to support and enhance EDUC 312 Field Experience II. Topics include dual language learners, Language Arts Common Core Standards and Early Learning Guidelines, effective teaching strategies including the use of the creative arts, IEPs, IFSPs and 504 plans. Additional topics may be presented as needed. This course is taken concurrently with EDUC 312 Field Experience II.

Prerequisites: EDUC 301 and EDUC 311 Concurrent requirements: EDUC 312



**EDUC 303 Sp 2.00 credits  
Field Experience III Theory**

Provides content to support and enhance EDUC 313 Field Experience III. Topics include building and maintaining collaborative professional relationships, classroom management strategies, and instructional strategies including the use of the creative arts, in the areas of mathematics, the arts, and health and fitness. This course is taken concurrently with EDUC 313 Field Experience III.

Prerequisites: EDUC 302 and EDUC 312 Concurrent requirement: EDUC 313

**EDUC 311 F 4.00 credits  
Field Experience I**

Provides the first of six field experiences for the certificate option, working in an educational setting with students and their families who are culturally, linguistically, and ability diverse under the guidance of a program-selected certificated teacher. Emphasizes building a classroom community through an anti-bias approach to engage learners, families and colleagues. Presents initial skills in developing and understanding local and global learning communities. Incorporates the standards for professional teacher behavior as outlined by the Professional Teacher Standards Board. Taken concurrently with EDUC 301 Field Experience I Theory. Prerequisite: EDUC& 205 Concurrent requirement: EDUC 301

**EDUC 312 W 4.00 credits  
Field Experience II**

Provides the second of six field experiences for the certificate option in an educational setting with students and their families who are culturally, linguistically, and ability diverse, under the guidance of a program-selected certificated teacher. Emphasizes literacy and language acquisition. Taken concurrently with EDUC 302 Field Experience II Theory.

Prerequisites: EDUC 301 and EDUC 311 Concurrent requirement: EDUC 302

**EDUC 313 Sp 4.00 credits  
Field Experience III**

Continues the field experience working in an educational setting with students and families who are culturally, linguistically, and ability diverse under the guidance of a program-selected certificated teacher. Emphasizes math acquisition and classroom management strategies. Third of six field experiences to be taken concurrently with EDUC 303 Field Experience III Theory.

Prerequisites: EDUC 302 and EDUC 312 Concurrent requirement: EDUC 303

**EDUC 319 F 4.00 credits  
Anti-Bias Education**

Examines equity issues in education. Presents strategies to apply the principles of anti-bias education to instruction. Explores how embedded bias can impact identity development. Assists in deconstruction of one's biases and reflection on biases present in the communities of practice and

societal systems. Examines the characteristics of culturally and linguistically relevant teachers. Provides opportunities for peer and instructor coaching to improve responsiveness to cultural, linguistic and ability diversity. Discusses culturally relevant pedagogy and its importance to the transmitting of culture from generation to generation.

Prerequisites: SOC& 101 Concurrent requirements: None

**EDUC 320 W 4.00 credits  
Language Arts for Teachers**

Focuses on applying Washington State's Language Arts Common Core Standards and Early Learning Guidelines P-3 through 8th grade. Continues application of the use of data to set goals, individualize instruction and group students according to common reading, writing, speaking, and listening goals. Candidates will design lesson plans, deliver instruction, assess student progress, and use technology to support instruction and management of student documents and records.

Prerequisites: ENGL 270 Concurrent requirements: None

**EDUC 325 W 5.00 credits  
Intro to Special Education**

Provides an overview of special education and the characteristics and needs of children exceptional learners. Reviews the historical roots of special education, provides perspective into special education with general education, and discusses specific types of exceptionalities. Covers the impact of exceptional learners on families, schools and communities.

Prerequisites: EDUC& 115 Concurrent requirements: None

**EDUC 330 Sp 5.00 credits  
Math Methods**

Introduces the initial competencies of the Washington State's Mathematics Common Core Standards and Early Learning Guidelines for P-3 through 8th grade students. Presents the use of data to set goals, individualize instruction and group students according to Common Core Mathematics Standards and Early Learning Guidelines. Covers designing lesson plans, delivering instruction, and assessing student progress at an initial level of competency. Introduces technologies to support instruction and manage individual student documents and instructional records.

Prerequisites: MATH& 132 Concurrent requirements: None

**EDUC 335**                      **Sp**                      **5.00 credits**  
**Collaboration & Classroom Leadership**

Develops skills needed to effectively collaborate with others including school personnel, community agencies, and families to support students who are culturally, linguistically, and ability divers. Supervision of assistants and paraprofessionals will be addressed. Reviews and explores classroom organization, management styles and philosophies. Assists in the development of a repertoire of skills to support success for every member of the classroom.

Prerequisites: EDUC& 150 Concurrent requirements: None

**EDUC 345**                      **Sp**                      **4.00 credits**  
**Curriculum Development & Design**

Examines pedagogical approaches for teaching in educational settings. Emphasis will be given to the study of curriculum theory, design, practice, evaluation, approaches to learning, including the use of the creative arts in teaching and dispositions. Students will explore Washington State Common Core Standards and Washington State Early Learning & Developmental Guidelines.

Prerequisites: None Concurrent Requirements: None

**EDUC 401**                      **F**                      **2.00 credits**  
**Student Teaching II Theory**

Provides content to support and enhance EDUC 411 Student Teaching I. Topics include science inquiry, the use of the creative arts as a teaching strategy, professional collaboration and positive guidance techniques. This course is taken concurrently with EDUC 411 Student Teaching I.

Prerequisites: EDUC 303 and EDUC 313 Concurrent requirement: EDUC 411

**EDUC 402**                      **W**                      **2.00 credits**  
**Student Teaching II Theory**

Provides content to support and enhance EDUC 412 Field Experience II. Topics include social studies, assessing students' progress, including the use of the creative arts in teaching, and differentiating instruction. This course is taken concurrently with EDUC 412 Student Teaching II.

Prerequisites: EDUC 401 and EDUC 411 Concurrent requirement: EDUC 412

**EDUC 403**                      **Sp**                      **2.00 credits**  
**Student Teaching III Theory**

Provides content to support and enhance EDUC 413 Field Experience III. Topics include: literacy, second language acquisition, including the use of the creative arts in teaching, professionalism, portfolio development, and teacher evaluation. This course is taken concurrently with EDUC 413 Student Teaching III.

Prerequisite: EDUC 402 and EDUC 412 Concurrent requirement: EDUC 413

**EDUC 410**                      **F**                      **4.00 credits**  
**Inquiry Based Science for Teachers**

Examines how science and technology have affected individuals, cultures, and society. Presents the Washington State Next Generation Science Standards for P-3 through 8th grade. Discusses the use of technologies which support scientific inquiry and exploration. Discusses assessment, planning, designing, delivering, and evaluating inquiry-based instruction in the sciences.

Prerequisites: PHSC 109 Concurrent requirements: None

**EDUC 411**                      **F**                      **4.00 credits**  
**Student Teaching I**

Advances the field experience working in an educational setting with students who are culturally, linguistically, and ability diverse and their families under the guidance of a program-selected certificated teacher. Emphasizes science inquiry and positive guidance techniques. Taken concurrently with EDUC 401 Student Teaching I Theory.

Prerequisites: EDUC 303 and EDUC 313 Concurrent requirements: EDUC 401

**EDUC 412**                      **W**                      **4.00 credits**  
**Student Teaching II**

Advances the field experience to autonomous student teaching in an educational setting with students and their families who are culturally, linguistically, and ability diverse under the guidance of a program-selected certificated teacher. Emphasizes social studies and assessing student's progress. Fifth of six field experience courses for the certificate option. Taken concurrently with EDUC 402 Student Teaching II Theory.

Prerequisites: EDUC 401 and EDUC 411 Concurrent requirement: EDUC 402

**EDUC 413**                      **Sp**                      **4.00 credits**  
**Student Teaching III**

Culminates the field experience with autonomous student teaching in an educational setting with students and their families who are culturally, linguistically, and ability diverse, under the guidance of a program-selected certificated teacher. Emphasizes literacy, professionalism, professional assessment, and portfolio development. This course is taken concurrently with EDUC 403 Student Teaching III Theory.

Prerequisites: EDUC 402 and EDUC 412 Concurrent requirement: EDUC 403

**EDUC 414**                      **F**                      **5.00 credits**  
**Guidance Techniques**

Provides a broad theoretical foundation of behavioral intervention strategies to support students with emotional, behavioral and social challenges. Explores student guidance techniques in depth. Examines strategies to support the development of a positive, supportive and respectful classroom environment, including teaching social competencies that facilitate responsible student behavior. Presents theories and research related to approaches to classroom management and guidance. Addresses specific behavioral challenges and issues.

Prerequisites: None Concurrent requirements: None

**EDUC 420**                      **W**                      **4.00 credits**  
**Social Studies for Teachers**

Presents methods, techniques, content, and materials for teaching the various grade levels with an emphasis on history, geography, economics, civics, political science, Washington State Social Studies Learning Standards, and social studies skills, through the use of inquiry, primary source documents, and integration of content within the elementary school curriculum. Candidates will be instructed in the Since Time Immemorial curriculum.

Prerequisites: HIST& 136 or HIST& 137 Concurrent requirements: None

**EDUC 429**                      **W**                      **5.00 credits**  
**Assessment**

Covers the selection, administration, scoring, and interpreting of formal and informal assessment tools for the purpose of setting goals and planning appropriate instruction. Refines skills and strategies for observing, documenting, and monitoring students birth to grade eight who are culturally, linguistically, and ability diverse and their families.

Prerequisites: None Concurrent requirements: None

**EDUC 430**                      **Sp**                      **3.00 credits**  
**Advanced Language & Literacy Methods**

Refines teaching strategies for language acquisition and literacy skill development for children who are culturally, linguistically, and ability diverse at each developmental stage (birth-eighth grade) through the four interrelated areas of speaking, listening, writing, and reading. Emphasizes strategies for teaching reading and how to support each stage of literacy development across genres and purposes. Addresses strategies for supporting families as they assist their children in learning language and literacy.

Prerequisites: None Concurrent requirements: None

**EDUC 434**                      **Sp**                      **2.00 credits**  
**Professionalism in Education**

Emphasizes behaviors that demonstrate professionalism. Includes developing a teaching philosophy and examining leadership in the field of education and early learning. Covers the importance of professional development in growing and improving knowledge and skills. Considers the meaning of being a member of a community of professionals, working

with others to improve schools, communities, and the teaching profession.

Prerequisites: None Concurrent requirements: None

**EDUC 439**                      **Sp**                      **4.00 credits**  
**Assessment/Portfolio**

Focuses on the final submission of the edTPA. Examines the edTPA instrument requirements, use of technology, writing requirements, logistics, and scoring. Covers specific academic language used for the submission of the edTPA and knowledge of on-going teacher evaluation adopted by Washington State.

Prerequisites: None Concurrent requirements: None

## Engineering (ENGR)

**ENGR& 121**                      **F,W,Sp**                      **1.00-3.00 credits**  
**Engineering Graphics I**

Involves students in communicating design ideas, developing visualization abilities, and analyzing engineering data through the use of graphical techniques and practices. Includes free-hand sketching, use of drafting instruments, line work, lettering, orthogonal projection, pictorials, basic dimensioning, and an introduction to computer-aided design modeling.

Prerequisite: None

**ENGR& 122**                      **F,W,Sp**                      **1.00-3.00 credits**  
**Engineering Graphics II**

Involves students in the use of graphical techniques and practices applied towards engineering design and analysis. Includes dimensioning and tolerancing, descriptive geometry, production of working drawings, advanced computer-aided design modeling, and an introduction to parametric solid modeling.

Prerequisite: ENGR& 121 (was ENGR 111) or instructor permission.

**ENGR& 123**                      **F,W,Sp**                      **1.00-3.00 credits**  
**Engineering Graphics III**

Involves students in the use of parametric solid modeling towards design on three-dimensional part and assembly models. Includes creating part and assembly drawings from 3D models, modifications throughout the design process, and comparing the many parametric solid modeling software packages available.

Prerequisite: ENGR& 121 (was ENGR 111) and ENGR& 122 (was ENGR 112) or instructor permission.

**ENGR& 204**    **6.00 credits**  
**Electrical Circuits**

Provides application of fundamental electrical principles in designing engineering solutions associated with linear circuit analysis, mathematical models of electrical components and circuits; sources, resistors, capacitors, inductors, operational amplifiers, and associated simple differential equations.

Prerequisites: PHYS 222, MATH& 152 and computer literacy.

**ENGR& 214 F 5.00 credits**  
**Statics**

Engages student use of vector algebra and the sweeping power of a few fundamental principles to design real engineering solutions to problems involving discrete and distributed forces, resultants, equations of equilibrium, moments about points and lines, centroids, moments of inertia, and the principle of virtual work.

Prerequisites: MATH& 151 and either PHYS& 221 or ENGR 106.

**ENGR& 215 W 5.00 credits**  
**Dynamics**

Engages student application of vector algebra and the sweeping power of a few fundamental principles to design real engineering solutions to problems involving translational and rotational motion associated with kinematics, kinetics, the impulse-momentum and work-energy principles, and related topics.

Prerequisites: ENGR& 214 (was ENGR 122), MATH& 152 (was MATH 152) and PHYS& 221, or instructor permission.

**ENGR& 224 Sp 5.00 credits**  
**Thermodynamics**

Encourages student application of basic principles of macroscopic thermodynamics to design solutions to engineering problems involving energy transformations and state changes, the first and second principles of thermodynamics, macroscopic properties of substances, flow analysis, entropy, equations of state, power and refrigeration cycles, and thermodynamic relations. (Formerly known as ENGR 260)

Prerequisite: ENGR& 214 (was ENGR 122), PHYS& 221, and MATH& 152 or instructor permission.

**ENGR& 225 Sp 5.00 credits**  
**Mechanics of Materials**

Engages students in application of fundamental principles and concepts of stress, strain and their relationships to design engineering solutions associated with axial loads, torsion and bending, combined stresses, properties of materials, columns, and repeated loadings.

Prerequisite: ENGR& 214 (was ENGR 122), concurrent enrollment in MATH& 152, and PHYS 252 or instructor permission.

**ENGR 106 Sp 3.00 credits**  
**Engineering Problems NSCI**

Introduces engineering and the engineering professions. Emphasizes analysis of actual engineering problems at the mathematical and reasoning levels of introductory students. Within this analytical framework, tools and concepts such as measurement theory, error analysis, dimensional analysis, metric units, systems of modeling, engineering design, and principles of elementary physics are incorporated.

Prerequisite: High school or 100-level physics or chemistry, or instructor permission. Concurrent enrollment in MATH& 142 (was MATH 113).

**ENGR 205 F 5.00 credits**  
**Design Of Logic Circuits**

Covers the design, analysis, and implementation of combinational logic circuits. Introduces sequential logic circuits.

Prerequisites: MATH& 141

**ENGR 206 W 5.00 credits**  
**Microprocessor Systems**

Covers microprocessor/microcontroller system architecture, instruction sets, interfacing, assembly and C language programming.

Prerequisites: CS 270, ENGR 205

**ENGR 210 5.00 credits**  
**Environmental Physics of Energy NSCI**

Solicits student descriptions of energy production, patterns of use, and the challenges posed by dwindling energy resources using the language of physics: work, power, energy, heat, and the Conservation of Energy Principle. Students explore the physical/technological bases of current/proposed technologies, along with current scientific discussions of environmental effects such as global warming and radiation. Students cannot receive credit for both ENGR 210 and PHYS 210.

Prerequisite: Algebraic, writing, and presentation skills; a previous distribution science course (e.g. PHYS& 100) would be helpful.

**ENGR 288 1.00-15.00 credits**  
**Cooperative Work Experience**

Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.

Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**ENGR 299 1.00-10.00 credits**  
**Independent Study**

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisites: By instructor permission only.

# English (ENGL)

**ENGL& 101**                      **S,F,W,Sp**                      **5.00 credits**  
**English Composition I**

Introduces first-year college writing skills including thesis discovery, development, support, organization, sentence correctness, diction, style, formal academic documentation and final editing to compose claim-driven essays. Emphasizes analytical reading and the writing of analysis, synthesis, and argument essays. Part one of the composition sequence.

Prerequisites: College level reading and writing skills or completion of ENGL 099 (was ENGL 100) or TECH 105 with a grade of C or better.

**ENGL& 102**                      **S,F,W,Sp**                      **5.00 credits**  
**English Composition II**

Develops first-year college writing skills to compose claim-driven writing, including an 8-12 page researched argument essays. Emphasizes inquiry and research; synthesis and analysis; argumentation and reasoning; integration and documentation of evidence; and sentence correctness, diction, and style. Part two of the composition sequence.

Prerequisites: ENGL& 101 with a grade of C or better.

**ENGL& 235**                      **S,Sp**                      **5.00 credits**  
**Technical Writing**

Emphasizes written workplace communications designed especially for the CS, engineering, and science professions. Topics covered include document format, visual design, multi-tiered audience, formal and informal reports, instructions, letters, and memos.

Prerequisite: ENGL& 101 with a grade of C or better.

**ENGL& 244**                      **5.00 credits**  
**American Literature**                      **HUM**

Presents the context for works of American literature and studies major works by authors such as Melville, Dickinson, and Hemingway. Explores the major forms and movements in American literature.

Prerequisite: ENGL& 101 or instructor permission.

**ENGL 104**                      **1.00-2.00 credits**  
**Accelerated Review Of Grammar/Punctuation REEL**

Develops knowledge of standard English grammar and punctuation for college and the workforce through individualized skill work with verbs, subjects, and modifiers. Emphasis is also placed on sentence structure, capitalization, and the following punctuation marks: the comma, apostrophe, semicolon, and quotation marks. Students develop the tools to spot and correct errors in their writing. (Formerly known as INDV 104)

**ENGL 106**                      **F,W,Sp**                      **2.00 credits**  
**Northwest Voices Creative Writing Workshop HUM**

Provides exposure to regional writers and creative writing techniques. Students read and discuss the work of Northwest Voices authors, attend the Northwest Voices writing workshops, and revise and complete creative works inspired from that workshop.

Prerequisites: None

**ENGL 108**                      **5.00 credits**  
**Introduction to Literature**                      **HUM**

Provides a broad introduction to various genres of literature, such as the novel, play, poem, short story, and non-fiction essay through extensive reading, discussion, and writing about literary works. Students will gain an appreciation for the diversity of literary offerings and strategies for interpreting them. The course prepares students for more advanced literature courses.

Prerequisite: ENGL 099 (was ENGL 100) or TECH 105 concurrent or passed.

**ENGL 110**                      **5.00 credits**  
**Industrial Communication**

Develops technical, job-related writing and interpersonal communication skills. Writing includes summaries, memos, emails, letters, resumes, and reports of varied length. Emphasizes the development of interpersonal communication skills through small group collaborations.

**ENGL 124**                      **F**                      **1.00-3.00 credits**  
**Arts Magazine Publication I**                      **HUM**

Instructs and guides students through the first stage in an annual publication process for creating and editing The Salal Review (Lower Columbia College's literary and visual arts magazine). Students in this stage of the publication process work primarily with literary art submissions: marketing for, collecting, critiquing, selecting, editing, and creating design templates for poems, prose, short stories, comics, etc. to be displayed in the annual printed magazine. Students may take a total of 18 credits in six classes (ENGL 124/ART 134, ENGL 125/ART 135, ENGL 126/ART 136, ENGL 224/ART 234, ENGL 225/ART235, ENGL 226/ART 236) to complete two years of publication work. Credit hours are dependent upon student work involvement in the publication process.

Prerequisites: No prerequisites required

**ENGL 125**                      **W**                      **1.00-3.00 credits**  
**Arts Magazine Publication II**                      **HUM**

Instructs and guides students through the second stage in an annual publication process for creating and editing The Salal Review (Lower Columbia College's literary and visual arts magazine). Students in this stage of the publication process work primarily with visual art submissions: marketing for, collecting, critiquing, selecting, editing, and creating design templates for drawings, paintings, sculptures, digital art, photographs, etc. to be displayed in the annual printed magazine. Students also continue editing and designing pages for displaying selected literary art while creating coherent design templates for integrating visual art. Students may take a total of 18 credits in six classes (ENGL 124/ART 134, ENGL 125/ART 135, ENGL 126/ART 136, ENGL 224/ART 234, ENGL 225/ART 235, ENGL 226/ART 236) to complete two years of publication work. Credit hours are dependent upon student work involvement in the publication process.

Prerequisites: None

**ENGL 126**                      **Sp**                      **1.00-3.00 credits**  
**Arts Magazine Publication III**                      **HUM**

Instructs and guides students through the third and final stage in an annual publication process for creating and editing The Salal Review (Lower Columbia College's literary and visual arts magazine). Students in this stage of the publication process finalize the editing and designing process for the printed magazine, focusing especially on the creating of cover pages, the table of contents, and other finishing attributes, along with the creation of a digital shareable copy. Students organize and facilitate a community launch party event, collaborate with professionals in the printing industry to ensure quality and timely delivery of the magazine order, and execute a distribution plan for sharing the magazine with a larger audience. Students may take a total of 18 credits in six classes (ENGL 124/ART 134, ENGL 125/ART 135, ENGL 126/ART 136, ENGL 224/ART 234, ENGL 225/ART 235, ENGL 226/ART 236) to complete two years of publication work. Credit hours are dependent upon student work involvement in the publication process.

Prerequisites: None

**ENGL 140**                      **F**                      **5.00 credits**  
**Introduction to Women Writers: DIV**                      **HUM, DIV**

Examines literature written by women over a broad span of time to understand how social forces relating to gender, class, and race shape(d) their writing. Genres to be read will include poetry, short stories, non-fiction essays, and novels. Satisfies Diversity requirement.

Prerequisite: ENGL 099 (was ENGL 100) or TECH 105 or college-level writing ability

**ENGL 204**                      **5.00 credits**  
**The Novel**                      **HUM**

Provides extensive reading, discussing, and writing about the works by classic novelists. Through these novels, students will gain an understanding of how the novel works, how it has developed over a period of 200 years, and how its universal truths and insights are still applicable to the modern world.

Prerequisite: None

**ENGL 205**                      **5.00 credits**  
**Film and Drama Appreciation**                      **HUM**

Focuses on how film and drama reflect and shape community attitudes. The course looks historically at the development of narrative and style; however, particular attention is paid to how visual images shape our perceptions, reflect biases, or challenge stereotypes imbedded in popular culture. Students watch and discuss plays and films to develop critical analysis skills for interpretation and evaluation. They read representative works from Asian, African, and native American authors and filmmakers.

Prerequisite: ENGL& 101 or instructor permission.

**ENGL 215**                      **F**                      **5.00 credits**  
**Introduction to Film Studies**                      **HUM**

Examines the conventions and techniques of narrative cinema with some readings in film theory. Explores the development of narrative and style and how film reflects and shapes community attitudes. Studies watch and discuss select representative films to develop critical analysis skills for interpretation and evaluation.

Prerequisites: ENGL& 101 or instructor permission.

**ENGL 221**                      **2.00-5.00 credits**  
**Teaching and Tutoring Writing I**                      **HUM**

Provides instruction in writing center and composition theory, emphasizing theories on language and literacy acquisition, tutoring writing, and composition pedagogy (2+ credits). Includes hands-on practice tutoring writing in the LCC Learning Commons, paired with discussion and reflection (4+ credits). Introduces students to the practice of writing center research. Students enrolled for 4 or more hours must pass a background check.

Prerequisites: ENGL& 101

**ENGL 222**                      **4.00-5.00 credits**  
**Teaching and Tutoring Writing II**                      **HUM**

Deepens understanding of the concepts and skills from English 221. Applies concepts to a broader range of composition theory and tutoring experience. Prepares for a leadership role within a writing center environment by designing and implementing a lesson on tutoring writing. Continues writing center research skills.[Introduces academic authorship (5 credits only).] Students must pass a background check.

Prerequisites: ENGL 221

**ENGL 224 F 1.00-3.00 credits**  
**Arts Magazine Publication IV HUM**

Instructs and guides students through the first stage of a second year of an annual publication process for creating and editing The Salal Review (Lower Columbia College's literary and visual arts magazine). Second year students will take on leadership and mentoring roles as they market, collect, critique, select, edit, and create design templates for literary art submissions such as poems, prose, short stories, comics, etc. to be displayed in the annual printed magazine. Students may take a total of 18 credits in six classes (ENGL 124, ENGL125, ENGL 126, ENGL 224, ENGL 225, ENGL 226) to complete two years of publication work. Credit hours are dependent upon student work involvement in the publication process.

Prerequisites: ENGL 124 or ART 134

**ENGL 225 W 1.00-3.00 credits**  
**Arts Magazine Publication V HUM**

Instructs and guides students through the second stage of a second year of an annual publication process for creating and editing The Salal Review (Lower Columbia College's literary and visual arts magazine). Second year students will take on leadership and mentoring roles as they market, collect, critique, select, edit, and create design templates for visual art submissions such as drawings, paintings, sculptures, digital art, photographs, etc. to be displayed in the annual printed magazine. Students also continue editing and designing pages for displaying selected literary art while creating coherent design templates for integrating visual art. Students may take a total of 18 credits in six classes (ENGL 124/ART 134, ENGL 125/ART 135, ENGL 126/ART 136, ENGL 224/ART 234, ENGL 225/ART 235, ENGL 226/ART 236) to complete two years of publication work. Credit hours are dependent upon student work involvement in the publication process.

Prerequisites: ENGL 125 or ART 135

**ENGL 226 Sp 1.00-3.00 credits**  
**Arts Magazine Publication VI HUM**

Instructs and guides students through the third and final stage of a second year of an annual publication process for creating and editing The Salal Review (Lower Columbia College's literary and visual arts magazine). Second year students will take on leadership and mentoring roles as they finalize the editing and designing process for the printed magazine, focusing especially on the creation of cover pages, the table of contents, and other finishing attributes, along with the creation of a digital, shareable copy. Students organize and facilitate a community launch party event, collaborate with professionals in the printing industry to ensure quality and timely delivery of the magazine order, and execute a distribution plan for sharing the magazine with a larger audience. Students may take a total of 18 credits in six classes (ENGL 124/ART 134, ENGL 125/ART 135, ENGL 126/ART 136, ENGL 224/ART 234, ENGL 225/ART 235, ENGL 226/ART 236) to complete two years of publication work. Credit hours are dependent upon student work involvement in the publication process.

Prerequisites: ENGL 126 or ART 136

**ENGL 231 5.00 credits**  
**Creative Writing HUM**

Provides an introduction to the writing of short fiction and poetry. Assignments explore techniques of writing and revising, examining the elements of stories and poems. Students critique each other's work and study the published work of other writers.

Prerequisite: ENGL& 101 or instructor's permission.

**ENGL 232 5.00 credits**  
**Creative Writing HUM**

Engages students in writing and revising short fiction and poetry. Assignments explore the elements of stories and poems but allow students to concentrate on one form or the other. Students critique each other's work and study the published work of other writers.

Prerequisite: ENGL 101 and 231 or consent of instructor

**ENGL 233 5.00 credits**  
**Creative Writing HUM**

Engages students in writing and revising short fiction and poetry. Students may choose to concentrate on stories or poems in individual projects. In class sessions, students critique each other's work and study the published work of other writers.

Prerequisite: ENGL 101, 231, and 232 or instructor's permission

**ENGL 234 5.00 credits**  
**Creative Writing:Life Stories HUM**

Emphasizes the writing, constructive analysis, and revision of creative nonfiction, focusing on the personal experience. Students use journaling and respond to other exercises to develop ideas from personal experience; write, revise, and critique one another's work; and study the published work of other writers.

Prerequisite: ENGL& 101 or instructor permission.

**ENGL 245** **5.00 credits**  
**Contemporary Literature: DIV** **HUM, DIV**  
 Explores contemporary films, drama, poetry, and fiction using analysis, interpretation, and evaluation. Field trips to view a movie or a play, or attendance at a poetry reading may be included. Essays and other written work are required.  
 Prerequisite: ENGL& 101

**ENGL 246** **5.00 credits**  
**Rainbow Readers: LGBTQ Literature: DIV** **HUM, DIV**  
 Examines some of the major concepts of modern and contemporary queer culture through close readings of writers of the 20th Century Lesbian, Gay, Bisexual, Transgender and Queer community.  
 Prerequisites: ENGL& 101 or instructor permission.

**ENGL 251** **5.00 credits**  
**English Literature I (Pre-1800)** **HUM**  
 Surveys major authors from Beowulf, Chaucer, Shakespeare, Donne, Johnson, and Milton through 18th Century authors including Swift, Pope, and Fielding. Seminar-discussion format.  
 Prerequisite: ENGL& 101 or instructor permission.

**ENGL 252** **5.00 credits**  
**English Literature** **HUM**  
 Surveys major authors from Blake and Wordsworth among other Romantic writers, Tennyson and Browning among other Victorian writers, and poets and prose writers of the 20th century, including Conrad, Yeats, Joyce, Lawrence, Eliot, Becket, and Auden. The course is operated in a seminar-discussion format.  
 Prerequisite: ENGL& 101 or instructor permission.

**ENGL 254** **5.00 credits**  
**Understanding Fiction and Poetry** **HUM**  
 Examines traditional and experimental fiction and poetry, presenting the short story and the poem as related literary forms. Students will gain an understanding of the elements of fiction and poetry, as well as the ways in which writers reflect or challenge prevalent societal values through literature. This experience provides an opportunity for students to demonstrate their progress in developing the knowledge, skills, attitudes and values contained in the course plan outcomes.  
 Prerequisite: ENGL& 101 or instructor permission.

**ENGL 255** **5.00 credits**  
**Science-Fiction Literature and Film** **HUM**  
 Examines science fiction as an important genre in literature and film. Explores historical and modern examples of science fiction, focusing on significant works in the history and development of the genre, such as H. G. Wells' The Time Machine, William Gibson's Neuromancer, and Kubrick's 2001: A Space Odyssey. Considers science fiction's power to engage with challenging social and political issues, and explores how it both inspires and is inspired by science and technology. This course meets the Humanities requirement for transfer degrees and professional/technical degrees.  
 Prerequisites: ENGL& 101 or ENGL 108 or instructor permission.

**ENGL 256** **5.00 credits**  
**Special Topics in Literature** **HUM**  
 Focuses on special topics or genres of literature, identified each quarter. Students learn the literary depth of a specific genre or thematic topic while gaining an understanding of the different forms of literature. This experience provides transfer students an opportunity to demonstrate their progress in developing the knowledge, skills, attitudes and values.  
 Prerequisite: ENGL& 101 or instructor permission.

**ENGL 260** **5.00 credits**  
**World Literature** **HUM**  
 Examines literature from a thematic approach, tracing the human struggle for intellectual identity and personal autonomy in such foundational works as Gilgamesh, the Bible, the Greek classics, and in more recent writings.  
 Prerequisite: ENGL 102 or instructor permission.

**ENGL 270** **5.00 credits**  
**Literature for Children** **HUM**  
 Offers a critical survey of literary materials appropriate for children from nursery through elementary school age with practice in using literature with groups.  
 Prerequisite: None

**ENGL 280** **5.00 credits**  
**Multicultural Literature: DIV** **HUM, DIV**  
 Provides students with an introduction to multicultural literature. Emphasis is placed on increasing awareness and understanding of the values, beliefs, and experiences of people from different cultures, especially those of Asia, Latin America and Africa.  
 Prerequisite: ENGL& 101 with a grade of C or better or instructor permission.

**ENGL 288** **1.00-15.00 credits**  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.



**ENGL 299** **1.00-10.00 credits**  
**Independent Study**

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisites: By instructor permission only.

**ENGL 96** **S,F,W,Sp** **2.00 credits**  
**Reading Workshop I**

Provides individualized and group instruction in reading. Students will explore their strengths and weaknesses in reading and learn to draw upon strengths to overcome comprehension barriers and successfully build from written texts.

Prerequisite: None

**ENGL 97** **S,F,W,Sp** **2.00 credits**  
**Reading Workshop II**

Continues individualized and group instruction in reading. Students will explore their strengths and weaknesses in reading and learn to draw upon strengths to overcome comprehension barriers and successfully build from written texts.

Prerequisite: None

**ENGL 98** **S,F,W,Sp** **5.00 credits**  
**College-Ready English I**

Introduces skills for reading college-level texts and writing college-level papers. Provides strategies for generating, developing, supporting, and organizing ideas, as well as revising for coherence, clarity, correctness, and documentation. This is an outcomes-based pathway to college-level composition courses.

Prerequisite: None Concurrent requirements: None

**ENGL 99** **S,F,W,Sp** **5.00 credits**  
**College-Ready English II**

Develops and refines additional skills for reading college-level texts and writing college-level papers. Provides strategies for generating, developing, supporting, and organizing ideas, as well as revising for coherence, clarity, correctness, and documentation. This is an outcomes-based pathway to college-level composition courses.

Prerequisites: ENGL 098 with a grade of C or better. Concurrent requirements: None

## English as a Second Language (ESL)

**ESL 51** **S,F,W,Sp** **1.00-20.00 credits**  
**English Level A**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a beginning basic education reading and writing course. Prerequisites: CASAS appraisal exam and CASAS appraisal score of 200 and below.

**ESL 61** **1.00-20.00 credits**  
**English Level B**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a low intermediate basic education reading and writing course.

Prerequisite: CASAS appraisal exam and CASAS appraisal score of 201-220

**ESL 70** **1.00-3.00 credits**  
**Educational Interview-ESL**

Develop and monitor a personal plan of action to reach their personal, educational, and workplace goals by providing an orientation to the college community and the Transitional Studies program and their resources and services.

Prerequisite: None

**ESL 71** **S,F,W,Sp** **1.00-20.00 credits**  
**English Level C**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high intermediate basic education reading and writing course.

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 221-235.

**ESL 81** **1.00-20.00 credits**  
**English Level D**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a low adult secondary education reading and writing course.

Prerequisite: CASAS appraisal exam and CASAS appraisal score of 236-245

**ESL 91** **1.00-20.00 credits**  
**English Level E**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high adult secondary education reading and writing course.

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 246 and higher

## Environmental Science (ENVS)

**ENVS 150** **F,W** **5.00 credits**  
**Environment & Society: DIV** **NSCI, DIV**

Introduces the interdisciplinary field of environmental science with an emphasis on the disproportionate impacts environmental problems have on human societies, especially low-income and minority groups. Major concepts include ecology, biodiversity, natural resources, toxicology, population, climate change, and environmental justice. Explores current environmental problems and solutions through case studies set in Africa, Asia, Latin America, and North America.

Prerequisite: None

**ENVS 215** **Sp** **5.00 credits**  
**Environmental Issues & Applications** **NSCI, NSL**  
 Examines, analyzes, and solves problems stemming from many of today's most pressing issues: natural resources, energy, toxic and hazardous compounds, and human population. Uses a case study approach to investigate these issues with an emphasis on four overlapping themes: climate change, environmental toxicology, conservation biology and restoration ecology, and sustainability. Field trips may be required. Laboratory is included.  
 Prerequisites: ENGL& 101 or consent of instructor, MATH 087 or MATH 088 or TECH 088.

**ENVS 288** **1.00-15.00 credits**  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission  
 Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**ENVS 299** **1.00-10.00 credits**  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisites: By instructor permission only.

## Geography (GEOG)

**GEOG 105** **W** **5.00 credits**  
**Physical Geography** **NSL**  
 Examines our physical environment especially the global distribution and interrelationship of such factors as climate, soils, flora, fauna, and landforms. Topics include maps, Earth-Sun relationships, seasons, time, weather, hydrology, landforms, climate types, natural vegetation assemblages, biomes, ecosystems, and their significance in the biosphere. Laboratory includes use of globes, maps, aerial photographs, data tables, and graphs for analysis and problem solving. Use of the scientific method is emphasized.  
 Prerequisite: None

## Geology (GEOL)

**GEOL& 101** **F,W** **5.00 credits**  
**Intro Physical Geology** **NSL, NSCI**  
 Examines Earth's internal composition and structure, its internal and surficial processes. Major topics: rocks, minerals, weathering, mass movements, erosion, deserts, coasts, ground water, plate tectonics, volcanoes, earthquakes, mountain building, and geologic resources and hazards. Laboratory work includes identification of rocks, minerals, and landforms, interpretation of topographic maps and cross-sections, stereograms, photographs, and satellite images.  
 Prerequisite: None

**GEOL& 208** **F,W,Sp** **5.00 credits**  
**Geology of Pacific Northwest** **NSCI, NSL**  
 Explores the rocks, plate tectonics and other geologic features, and evolution of the Pacific Northwest, including the Cascades, Columbia Plateau, Olympic Mountains, and Yellowstone. Laboratory includes rock identification, interpretation of topographic and geologic maps of the Northwest. Field trips may be required.  
 Prerequisite: None

**GEOL 105** **5.00 credits**  
**Geology: Earth Revealed** **NSL**  
 Offers a comprehensive one-term study of the Earth's physical properties and processes. Major topics are rocks and minerals, weathering, erosion, deserts, coasts, ground water, plate tectonics, volcanoes, earthquakes, mountain building, and geologic hazards. Laboratory work, to be completed at home, includes identification of minerals and rocks and map interpretation. This telecourse is recommended only for the strongly self-motivated student. It is not intended for geology majors.  
 Prerequisite: None

**GEOL 118** **Sp** **5.00 credits**  
**Historical Geology** **NSL**  
 Examines the physical and biological evolution of Earth as determined from evidence preserved in rocks. Major topics include plate tectonics, evolution, biogeography, geologic time, and climate change. Laboratory includes identification of rocks and fossils, determination of relative and absolute ages, and interpretation of past environments. A field trip may be required.  
 Prerequisite: None

**GEOL 124** **1.00 credit**  
**Geology Fieldtrip: Columbia River Gorge** **NSCI**  
 Primarily explores the geology in the Columbia River Gorge between The Dalles, Oregon and Vancouver, Washington. Provides students with the opportunity to observe, and make hypotheses about, the processes that shape our planet and that affect humans, salmon, and other organisms.  
 Prerequisites: None

**GEOL 288** **1.00-17.00 credits**  
**Cooperative Work Experience**

Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.

Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**GEOL 299** **1.00-10.00 credits**  
**Independent Study**

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisite: By Instructor Permission only.

## Health (HLTH)

**HLTH 100** **S,F,W,Sp** **3.00 credits**  
**Occupational Safety and Health** **REEL**

Introduces fundamental concepts and practices related to safety and hygiene in the work place, including bloodborne and airborne pathogens, AIDS awareness and risk reducing behaviors. First Aid/CPR-D training is included. Students are issued First Aid/CPR-D Health Care Provider card upon completion.

Prerequisite: None

**HLTH 105** **S,F,W,Sp** **1.00 credit**  
**First Aid, CPR And Bloodborne Pathogens** **REEL**

Instructs students in First Aid and adult, child and infant CPR through the American heart Association for healthcare providers including AED training. Students will receive first aid and CPR certification with completion of this course. This course will also cover bloodborne pathogen training, which students will also receive certification in with the completion of the course.

Prerequisite: None

**HLTH 106** **F,W,Sp** **2.00 credits**  
**Health and Wellness** **ELEC**

Analyzes a vast array of information on the dangers of risky health behaviors and the benefits of healthy decisions as it affects one's life. Emphasis will be on personal decision-making and positive behavioral changes toward the goal of wellness as a lifestyle.

Prerequisite: None

**HLTH 110** **2.00 credits**  
**Personal Health** **REEL**

Discusses a wide variety of major health topics. Students will look at the health topics from a personal perspective and will identify ways to enhance their own personal health and wellness. Topics may include but are not limited to: nutrition, fitness, cancer, cardiovascular disease, drugs, alcohol, tobacco, stress, relationships, psychological health, environmental health, pregnancy and childbirth, and weight management.

Prerequisite: None

**HLTH 135** **2.00 credits**  
**Food and Fitness** **ELEC**

Explores two components of a healthy lifestyle; nutrition and exercise. Introduces basic concepts of nutrition and healthy dietary choices. Provides information necessary for developing a safe, well-rounded exercise program.

Prerequisites: None

**HLTH 245** **W** **3.00 credits**  
**Health and Exercise Behavior Change** **ELEC**

Explores the relationship between exercise, physical health and mental health. Covers exercise and mood, personality traits, nutrition behavior, and group dynamics. Includes application of practical skills related to working with others to promote exercise adherence and health and exercise intervention.

Prerequisites: None

**HLTH 288** **1.00-15.00 credits**  
**Cooperative Work Experience**

Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.

Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**HLTH 299** **1.00-10.00 credits**  
**Independent Study**

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisites: By instructor permission only.

# High School Completion (HSC)

## HSC 55 F,W,Sp 1.00 credit Orientation to CEO

Orient and reorient new and/or returning Career Education Options students with college resources and processes in order to increase retention and enable successful transition from K12 or out-of-school environment to the Lower Columbia College campus community. May be repeated for credit only for students returning to the program after an absence of two or more quarters.

Prerequisites: None

## HSC 65 F,W,Sp 1.00-5.00 credits Washington State History

Explores the following themes and eras in Washington State history from 1854 to the present: Territories and treaty-making (1854-1889), railroads, reform, immigration, and labor (1889-1930), The Great Depression and World War II (1930-1945), new technologies and industries (1945-1980), and contemporary Washington State (1980-present). May be repeated once for credit.

Prerequisite: None. Course is intended for CEO and HSC students.

## HSC 69 F,W,Sp 1.00-5.00 credits Art of Film

Introduces film appreciation through recognition of specific film genres and subgenres. Explores both historical and modern examples of film genres through a variety of film choices. Considers the power of film to entertain, inspire, enlighten, and educate. May be repeated once for credit.

Prerequisites: None.

## HSC 70 F,W,Sp 1.00-5.00 credits Spanish I

Develop basic communication abilities in Spanish. Provide an opportunity for learning about other Spanish speaking cultures. Students practice both speaking and writing with classmates and Native Spanish speakers. Compares and contrasts Latin American and American cultures. This course may be repeated until student reaches proficiency at this level. May be repeated once for credit.

Prerequisites: None

## HSC 71 F,W,Sp 1.00-5.00 credits Spanish II

Develop higher level communication abilities in Spanish. Provide an opportunity for research of Spanish speaking cultures. Requires students to practice in both speaking and writing with classmates and Native Spanish speakers. Explores the differences and similarities between Spanish speaking and American cultures. Provides opportunities to explore careers, become involved in the Latin community and research the global uses of Spanish. May be repeated once for credit.

Prerequisites: Completion of Spanish I or the high school equivalent.

## HSC 73 F,W,Sp 1.00-5.00 credits Visual Arts - Drawing

Explores basic visual arts concepts such as the elements of art and the principles of design while engaging students in hands-on creative projects. Guides students to create, perform (exhibit), and respond as they follow step-by-step pencil and paper drawing lessons. Intended for Career Education Options students. May be repeated once for credit.

Prerequisites: None

## HSC 74 F,W,Sp 1.00-5.00 credits Student Success

Students will navigate and actively participate in college courses. Promotes student success through short and long-term goal setting. Reinforces learning strategies for reading, writing and communication. Introduces and provides practice in online learning systems, tools, and college resources. Encourages engagement with college instructor and peers, and identifies a variety of strategies for time management and study skills. May be repeated once for credit.

Prerequisites: None. Concurrent requirements: None

## HSC 75 F,W,Sp 1.00-5.00 credits Introduction to Drama

Introduces the development of drama and genres of theater from ancient Greece to contemporary theater. Students will read, view, and perform plays as they learn to recognize literary themes in drama. Types of drama include tragedy, comedy, and melodrama. May be repeated once for credit.

Prerequisite: None. Course is intended for CEO and HSC students.

## HSC 76 F,W,Sp 1.00-5.00 credits Family Life

Provides information to promote healthy family functioning. Explores family life issues and challenges. Introduces foundational concepts to effective parenting, such as safety, childhood illnesses, and behavior management. Presents decision-making and conflict resolution strategies. Promotes healthy choices, especially as they relate to families. May be repeated once for credit.

Prerequisite: None Course is intended for CEO and HSC students.

**HSC 77**            **F,W,Sp**            **1.00-5.00 credits**  
**Active Fitness**  
 Guides students to plan and participate in a personalized exercise program designed to meet their individual fitness goals. Students may use Lower Columbia College Fitness Center, other work-out facilities, or off-campus activities. This course may be repeated once for credit. Intended for Career Education Options/HS Completion students.  
 Prerequisites: None.

**HSC 79**            **F,W,Sp**            **1.00-5.00 credits**  
**Mathematical Concepts-Geometry**  
 Introduces elementary logic and mathematical proof using traditional geometry concepts. Prepares the student for future math courses while introducing critical thinking, problem-solving, and collaborative work in math-related real world situations. May be repeated once for credit.  
 Prerequisite: None. Course is intended for CEO and HSC students.

**HSC 80**            **F,W,Sp**            **1.00-5.00 credits**  
**Mathematical Concepts-Algebra**  
 Provides a review of arithmetic operations on whole numbers, fractions, and decimals. Covers applications of percent, proportions, and ratios in order to solve multi-step problems using the fundamentals of algebra. Prepares the student for future math courses while introducing critical thinking, problem-solving, and collaborative work in math-related real world situations. May be repeated once for credit.  
 Prerequisite: None. Course is intended for CEO and HSC students.

**HSC 82**            **F,W,Sp**            **1.00-5.00 credits**  
**Reading Reboot**  
 Provides individualized instruction in reading. This self-paced course identifies individual strengths and weaknesses in reading and builds strategies to overcome comprehension barriers in order to successfully draw relevance and meaning from written texts. May be repeated once for credit.  
 Prerequisites: None.

**HSC 83**            **F,W,Sp**            **3.00-5.00 credits**  
**Career Planning**  
 Directs students in an investigation of interests, values, and occupations utilizing the basic principles of information research. Introduction to and use of college web based eLearning platform, and other technologies for development of resume, cover letter, job searches and career, college options. Emphasizes the process of locating and evaluating information in both print and online formats. Assists students in forming personal goals and developing a plan for their education to prepare for their future. Introduces students to college resources to assist with goal setting, and post high school career planning. May be repeated once for credit.  
 Prerequisites: None.

**HSC 84**            **F,W,Sp**            **1.00-5.00 credits**  
**Nutrition and Fitness**  
 Provides self-paced study of nutrition and fitness related concepts, including components of nutrition, making healthy food choices, movement and coordination, lifelong fitness, and a look at each major body system involved in nutrition or fitness. In addition, students will gain knowledge about chronic diseases and disabilities and what is involved in building a healthy community. May be repeated once for credit.  
 Prerequisites: None.

**HSC 85**            **F,W,Sp**            **1.00-5.00 credits**  
**Mental and Social Health**  
 Provides self-paced study of mental and social health-related topics, including self-esteem, emotions, healthy relationships, stress management, mental disorders, suicide, violence prevention, substance abuse, and disease prevention. May be repeated once for credit.  
 Prerequisites: None.

**HSC 86**            **F,W,Sp**            **1.00-5.00 credits**  
**Intro to Literature**  
 Explores elements of the short story: plot, character, setting, point of view, tone, theme, and symbol through a variety of genres. Students will explore fiction as social commentary, examine examples of regionalism, and study the relationship between visual arts and fiction.  
 Prerequisite: None. Course is intended for CEO and HSC students.

**HSC 87**            **F,W,Sp**            **1.00-5.00 credits**  
**Introduction to Poetry**  
 Focuses on reading and writing poetry in both traditional and experimental forms. The elements of poetry are examined through tone, voice, rhyme, and rhythm. Students will also identify imagery created by figures of speech and explore the connection between art and poetry. May be repeated once for credit.  
 Prerequisite: None. Course is intended for CEO and HSC students.

**HSC 88**            **F,W,Sp**            **1.00-5.00 credits**  
**Introduction to Writing**  
 Offers an introduction to patterns of development in writing and practice in the writing process. May be repeated once for credit.  
 Prerequisite: None.

**HSC 89**            **F,W,Sp**            **1.00-5.00 credits**  
**English Essentials**  
 Provides a practical review of the grammar, punctuation, and usage skills that students need most. Instruction is designed to give students immediate feedback using self-correcting practice. Students may study subject-verb agreement, fragments, run-ons, pronouns, commas, apostrophes, quotation marks, homonyms, capital letters, word choice, misplaced/dangling modifiers, and parallelism. May be repeated once for credit.  
 Prerequisites: None. Course is intended for HSC/CEO students.

**HSC 90 F,W,Sp 1.00-5.00 credits  
Natural Hazards**

Examines the movement of chemicals and energy through Earth's systems by their resulting natural hazards. Emphasis will be placed on specific processes involved, predictability, human interaction, minimizing damage, and natural functions of each natural hazard. Topics include Earthquakes, Tsunamis, Volcanoes, Flooding, Mass Wasting, Subsidence and Soils, Atmosphere and Severe Weather, Hurricanes and Extratropical Cyclones, Climate and Climate Change, and Wildfires. Open to CEO and HSC students. May be repeated once for credit.  
Prerequisite: None.

**HSC 91 F,W,Sp 1.00-5.00 credits  
Environmental Science**

Examines the field of environmental science with an emphasis on the impacts environmental problems have on human populations. Major concepts include ecology, biodiversity, natural resources, toxicology, population growth and urbanization, climate change, and current trends toward sustainable energy. Open to CEO and HSC students. May be repeated once for credit.  
Prerequisite: None.

**HSC 92 F,W,Sp 1.00-5.00 credits  
Civics**

Surveys the foundations of citizenship through exploration of the United States system of government. Presents the Constitution, three branches of government, and the American legal system. Examines the impact of United States foreign policy, economy, and political systems on American society. Course is intended for CEO and HSC students. May be repeated once for credit.  
Prerequisite: None.

**HSC 93 F,W,Sp 1.00-5.00 credits  
US History 1**

Surveys United States history from pre-colonial times through the Civil War, Reconstruction, and Westward Expansion. Intended for CEO/HSC students. May be repeated once for credit.  
Prerequisites: None.

**HSC 94 F,W,Sp 1.00-5.00 credits  
US History 2**

Surveys United States history from the New Industrial Age, through the Progressive Era, World War I, the Jazz Age, Great Depression and New Deal. Intended for CEO/HSC students. May be repeated once for credit.  
Prerequisites: None.

**HSC 95 F,W,Sp 1.00-5.00 credits  
US History 3**

Surveys United States history from the BEGINNING OF World War II through the Cold War conflicts, Postwar Boom, New Frontier, Great Society, Civil Rights Movement, Vietnam War and the social changes these events brought to American society. Intended for CEO/HSC students. May be repeated once for credit.  
Prerequisites: None.

**HSC 96 F,W,Sp 1.00-5.00 credits  
Contemporary World Problems**

Surveys current world problems in the following areas: human rights, environment, globalization and the economy, and civic action and responsibility. Students will apply previous learning to current world problems by placing them in their proper historical, geographic, political, economic, and cultural contexts. Course is intended for CEO and HSC students. May be repeated once for credit.  
Prerequisite: None.

**HSC 97 F,W,Sp 1.00-5.00 credits  
Consumer Finance**

Presents topics for personal money management, including budgeting, banking, consumer credit, and taxes. May be repeated once for credit.  
Prerequisite: None.

**HSC 98 F,W,Sp 1.00-5.00 credits  
Introduction to Biology**

Introduces basic concepts in the biological sciences in order to develop an analytical and descriptive awareness of the biological community. Topics to be covered include biological theories, the organization and function of life, cells and DNA/RNA, genetics/heredity, classification of organisms, evolution, and ecology. The course is aligned with the current state standards and is designed to help prepare students to pass the state of Washington's End of Course (EOC) Exam in Biology. Intended for Career Education Options students. May be repeated once for credit.  
Prerequisites: None.

## History (HIST)

**HIST& 116 5.00 credits  
Western Civilization I HUM**

Traces the economic, political, social and cultural development of various western civilizations up to c. 1500. We will also endeavor to show that contemporary American culture is the living, breathing manifestation of ideas, beliefs, customs, habits and institutions of Western cultural traditions.  
Prerequisites: None

**HIST& 117 5.00 credits  
Western Civilization II ELEC, SOCS**

Examines the material and mental developments in Western religious, political, economic, social and cultural life from the early sixteenth century to the mid-nineteenth century. More specifically, the course explores the profound changes attending the Reformation, the scientific revolution, the rise of the modern nation state, the Enlightenment, and the projection of the Western presence abroad.  
Prerequisite: None.

**HIST& 126** **F** **5.00 credits**  
**World Civilizations I: DIV** **HUM, ELEC, DIV**  
 Focuses on the origins, development, and features of various societies in the ancient and classical world, including the peoples of Asia, Africa, Europe, the Americas, and Oceania. This course examines the political, social, and cultural contours of particular societies and the interactions and relationships among people of different historical cultures.  
 Prerequisite: None.

**HIST& 127** **W** **5.00 credits**  
**World Civilizations II: DIV** **SOCS, DIV, ELEC**  
 Examines the dramatic changes in world history in the pre-modern and early modern period (1500-1800), a time of profound and unprecedented transformations in many societies around the world. Historical topics include: the development of new economic systems such as mercantile capitalism; large-scale interactions such as the Columbian exchange; scientific, philosophical, and political revolutions; and new global relationships such as colonialism. Attention will be paid to the increasing interdependence of Asia, Africa, Europe, the Americas, and Oceania.  
 Prerequisite: None

**HIST& 128** **S,Sp** **5.00 credits**  
**World Civilizations III: DIV** **ELEC, SOCS, DIV**  
 Examines the ways people have shaped and reacted to the issues of the modern world, such as 1) the emergence of global economic systems and their political, social and cultural effects; 2) the role of warfare, empire, power relations, and revolution in shaping international events; and 3) the interactions and reactions when cultural values, ideas, and technologies of many societies are in sustained contact. Attention will be paid to the sustained interdependence of Asia, Africa, Europe, the Americas, and Oceania.  
 Prerequisite: None.

**HIST& 136** **S,F,W,Sp** **5.00 credits**  
**US History I** **SOCS**  
 Focuses on the causes and effects of social, cultural, political, intellectual and economic change, from the colonial period to the end of the Civil War. Attention will also be given to the events outside North America that contributed to the emergence of the United States.  
 Prerequisite: None

**HIST& 137** **F,W,Sp** **5.00 credits**  
**US History II** **SOCS**  
 Focuses on the causes and effects of social, cultural, political, intellectual and economic change, from the end of the Civil War to the present. Attention will also be given to the events (e.g., immigration) outside North America that contributed to the emergence of the U.S. as well as the effects (e.g., imperialism) of its emergence on the rest of the world.  
 Prerequisite: None

**HIST& 215** **5.00 credits**  
**Women in U.S. History: DIV** **SOCS, DIV**  
 Focuses on the history of American women from pre-European settlement to the present. Lectures, readings, and assessments emphasize how female roles in family, work, politics, and culture have changed over time, creating new definitions of womanhood. Emphasizes the diversity among women in terms of race, ethnicity, class, and sexuality.  
 Prerequisite: None

**HIST 205** **Sp** **5.00 credits**  
**History of East Asia: DIV** **ELEC, SOCS, DIV**  
 Explores the past two hundred years of East Asia history, paying particular attention to China and Japan. It examines a number of topics: 1) the political, economic, and cultural changes and continuities within East Asian societies, 2) the interrelations among these countries, and 3) their interactions with the world outside their region.  
 Prerequisite: None

**HIST 214** **5.00 credits**  
**Sports in American History** **ELEC, SOCS**  
 Examines the American sporting experience from the colonial period through the 21st century. Focuses on the rise of organized sports institutions and how race, class, gender, ethnicity, and religion have shaped the relationship between sport and society. Students will learn about the histories of various sports, the athlete and spectator experience, consumerism and celebrity culture.  
 Prerequisite: None

**HIST 254** **5.00 credits**  
**History of Washington and the Pacific Northwest** **SOCS, ELEC**  
 Provides a social, political, economic history of the Pacific Northwest with particular emphasis on the State of Washington, including Native American history and gender/ethnic history. Course meets the Washington State History requirement for teacher certification.  
 Prerequisite: When taught as capstone - capstone prerequisites: when not taught as capstone - no prerequisites.

**HIST 288** **1.00-15.00 credits**  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**HIST 299** **1.00-10.00 credits****Independent Study**

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisites: By instructor permission only.

## Home and Family Life (HOFL)

**HOFL 131** **F,W** **1.00-3.00 credits****Parent/Child Experience** **REEL**

Provides knowledge of early childhood development and parenting skills. Educational experiences may take place in early learning environments such as the LCC Home and Family Life Early Learning Center, and/or Headstart/ECEAP classrooms. Other options provided for students include parent seminars and independent parent/child projects.

Prerequisite: None

**HOFL 132** **W** **1.00-3.00 credits****Parent/Child Experience** **REEL**

Provides knowledge of early childhood development and parenting skills. Educational experiences may take place in early learning environments such as the LCC Home and Family Life Learning Center and/or Head Start/ECEAP classrooms. Other options provided for students include parent seminars and independent parent/child projects.

Prerequisite: None

**HOFL 133** **1.00-3.00 credits****Parent/Child Experience** **REEL**

Provides knowledge of early childhood development and parenting skills. Educational experiences may take place in early learning environments such as the LCC Home and Family Learning Center and/or Head Start/ECEAP classrooms. Other options provided for students include parent seminars and independent parent/child projects.

Prerequisite: None

**HOFL 288** **1.00-15.00 credits****Cooperative Work Experience**

Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.

Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**HOFL 299** **1.00-10.00 credits****Independent Study**

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and

instructor, and documented in an Independent Study contract.

Prerequisites: By instructor permission only.

## Human Development (HDEV)

**HDEV 100** **S,F,W,Sp** **1.00 credit****New Student Orientation** **REEL**

Helps students gain in-depth knowledge of the enrollment process, student rights and responsibilities, and college policies and procedures. Emphasizes activities and services available in Career and Employment Services, Computer Labs, the Learning Center, Financial Aid, and the LCC Library. Students will be required to attend two student success series workshops.

Prerequisite: None

**HDEV 101** **1.00-5.00 credits****Career Planning** **REEL**

Launches students into an investigation of interests, values, and careers, followed by decision-making and goal setting. The course may be offered for various credits and emphasis in the content varies accordingly.

Prerequisite: None

**HDEV 106** **1.00-2.00 credits****Activities/Events Programming** **REEL**

Involves students in development and implementation of variety of co-curricular activities. Students learn to organize educational, cultural, social, and recreational programs for campus community, as well as budget development, committee participation, and cooperative programming with campus and community organizations. Students enrolled for one credit either serve on the ASLCC Programming Board as a program director or some combination of programming committee(s) and or special projects assignment(s). Additional credit is available for additional committee or project responsibilities. This course is offered on a pass/fail basis.

Prerequisite: None

**HDEV 107** **1.00-2.00 credits****Activities/Events Programming** **REEL**

Involves students in development and implementation of variety of co-curricular activities. Students learn to organize educational, cultural, social, and recreational programs for campus community, as well as budget development, committee participation, and cooperative programming with campus and community organizations. Students enrolled for one credit either serve on the ASLCC Programming Board as a program director or some combination of programming committee(s) and or special projects assignment(s). Additional credit is available for additional committee or project responsibilities. This course is offered on a pass/fail basis.

Prerequisite: None



**HDEV 108** **1.00-2.00 credits**  
**Activities/Events Programming** **REEL**  
 Involves students in development and implementation of variety of co-curricular activities. Students learn to organize educational, cultural, social, and recreational programs for campus community, as well as budget development, committee participation, and cooperative programming with campus and community organizations. Students enrolled for one credit either serve on the ASLCC Programming Board as a program director or some combination of programming committee(s) and or special projects assignment(s). Additional credit is available for additional committee or project responsibilities. This course is offered on a pass/fail basis.  
 Prerequisite: None

**HDEV 110** **1.00-3.00 credits**  
**Job Finding Skills** **REEL**  
 Provides effective job search techniques, including identification of transferable skills, job applications, job readiness, and creative job search. Students should be ready to conduct an active job search.  
 Prerequisite: None

**HDEV 115** **2.00 credits**  
**Stress Management** **REEL**  
 Focuses on developing effective life coping skills as related to interpersonal, work, family, and academic stressors. Students examine their beliefs, emotions, and self-defeating behaviors.  
 Prerequisite: None

**HDEV 116** **1.00-3.00 credits**  
**Leadership and Student Government** **REEL**  
 Offers experience in elections, meeting procedure, college and ASLCC committees, planning and conducting governance activities, planning and managing budgets, deliberating issues and setting goals for student welfare, and effective leadership responsibilities. Students enrolled in this class are voting members of the Executive Council of the ASLCC.  
 Prerequisite: Instructor permission

**HDEV 117** **1.00-3.00 credits**  
**Leadership and Student Government** **REEL**  
 Offers experience in elections, meeting procedure, college and ASLCC committees, planning and conducting governance activities, planning and managing budgets, deliberating issues and setting goals for student welfare, and effective leadership responsibilities. Students enrolled in this class are voting members of the Executive Council of the ASLCC.  
 Prerequisite: Instructor permission

**HDEV 118** **1.00-3.00 credits**  
**Leadership and Student Government** **REEL**  
 Offers experience in elections, meeting procedure, college and ASLCC committees, planning and conducting governance activities, planning and managing budgets, deliberating issues and setting goals for student welfare, and effective leadership responsibilities. Students enrolled in this class are voting members of the Executive Council of the ASLCC.  
 Prerequisite: Instructor permission

**HDEV 120** **S,F,W,Sp** **1.00 credit**  
**Individual and Group Relations** **REEL**  
 Extends to students opportunities in transfer information, goal setting, and other areas related to behavior change. Course may be repeated up to six times for a total of 6 credits.  
 Prerequisite: None

**HDEV 125** **2.00 credits**  
**Assertiveness Training** **REEL**  
 Examines interpersonal dynamics of relationships and personality. Students explore fears and anxieties connected to their interpersonal conflicts, as well as the impact of their personality on communication and behavior.  
 Prerequisite: None

**HDEV 127** **1.00-3.00 credits**  
**Student Support Services** **REEL**  
 This variable 1 - 3 credit course is designed to increase the retention, graduation, and transfer rate of first generation, low-income, and students with disabilities who are enrolled as Student Support Services participants. This course will expose students to strategies and activities designed to enhance a student's ability to learn, develop educational perspective, and improve academic performance. Emphasis on each student's Individualized Academic Plan and personal needs will determine the class content.  
 Prerequisite: None

**HDEV 128** **1.00 credit**  
**Transfer Planning** **REEL**  
 Facilitates the transfer process and increases the transfer rate of students who are first-generation, low-income, and/or DSS eligible, and who are enrolled as TRiO Student Support services participants. Exposes students to strategies and activities relevant to the process of choosing, applying, and enrolling as a transfer student at a 4-year institution. Emphasis on each student's long-range academic and career plan will determine the class content. This is a stand alone course that can be repeated for up to 3 credits. Tuition waived via TRIO-SSS Grant.  
 Prerequisites: None

**HDEV 145** **2.00 credits**  
**Anger Management** **REEL**  
 Encourages students to examine irrational beliefs and self-defeating behaviors. Focus is on covert and overt behaviors contributing to the power held by our "intimate enemies."  
 Prerequisite: None

**HDEV 150** **1.00-3.00 credits**  
**Psychology of Humor** **REEL**  
 Engages students in laughter and play. Focuses on biological and psychological effects of humor. Designed to help students develop health-conscious environment, manage pain, cope with emotional issues, and reduce stress. Pass/Fail grade.  
 Prerequisite: None

**HDEV 165** **2.00 credits**  
**Lead:Leadership Exploration And Development** **REEL**  
 Develops leadership skills and abilities. Introduces philosophical, theoretical, and practical elements of leadership. Increases self-awareness of personality type, communication skills, and learning styles. Explores leadership styles, skills, qualities and situations. Develops self-reliance, conflict resolution strategies, and team building skills. Addresses transferability of skills from real-life settings (such as the athletic field or court) to the learning environment and work place. Open only to student athletes.  
 Prerequisites: Instructor permission.

**HDEV 206** **1.00-2.00 credits**  
**Activities/Events Programming** **REEL**  
 Involves students in development and implementation of variety of co-curricular activities. Students learn to organize educational, cultural, social, and recreational programs for campus community, as well as budget development, committee participation, and cooperative programming with campus and community organizations. Students enrolled for one credit either serve on the ASLCC Programming Board as a program director or some combination of programming committee(s) and or special projects assignment(s). Additional credit is available for additional committee or project responsibilities. This course is offered on a pass/fail basis.  
 Prerequisite: None

**HDEV 207** **1.00-2.00 credits**  
**Activities/Events Programming** **REEL**  
 Involves students in development and implementation of variety of co-curricular activities. Students learn to organize educational, cultural, social, and recreational programs for campus community, as well as budget development, committee participation, and cooperative programming with campus and community organizations. Students enrolled for one credit either serve on the ASLCC Programming Board as a program director or some combination of programming committee(s) and or special projects assignment(s). Additional credit is available for additional committee or project responsibilities. This course is offered on a pass/fail basis.  
 Prerequisite: None

**HDEV 208** **1.00-2.00 credits**  
**Activities/Events Programming** **REEL**  
 Involves students in development and implementation of variety of co-curricular activities. Students learn to organize educational, cultural, social, and recreational programs for campus community, as well as budget development, committee participation, and cooperative programming with campus and community organizations. Students enrolled for one credit either serve on the ASLCC Programming Board as a program director or some combination of programming committee(s) and or special projects assignment(s). Additional credit is available for additional committee or project responsibilities. This course is offered on a pass/fail basis.  
 Prerequisite: None

**HDEV 216** **1.00-3.00 credits**  
**Leadership and Student Government** **REEL**  
 Offers experience in elections, meeting procedure, college and ASLCC committees, planning and conducting governance activities, planning and managing budgets, deliberating issues and setting goals for student welfare, and effective leadership responsibilities. Students enrolled in this class are voting members of the Executive Council of the ASLCC.  
 Prerequisite: Instructor permission

**HDEV 217** **1.00-3.00 credits**  
**Leadership and Student Government** **REEL**  
 Enhances students' ability to become effectual leaders in educational or work environment through situational leadership, teamwork, motivational techniques, ethical decision-making, budgeting, and various seminars. Students will represent student constituency through governmental process.  
 Prerequisite: Instructor permission

**HDEV 218** **1.00-3.00 credits**  
**Leadership and Student Government** **REEL**  
 Enhances students' ability to become effectual leaders in educational or work environment through situational leadership, teamwork, motivational techniques, ethical decision-making, budgeting, and various seminars. Students will represent student constituency through governmental process.  
 Prerequisite: Instructor permission

**HDEV 221** **2.00 credits**  
**Peer Mentoring I** **REEL**  
 Introduces Peer Mentoring principles to Student Support services Peer Mentors to increase the retention, graduation, and transfer rate of first-generation, low-income, and students with disabilities who are enrolled as Student Support Services first-year participants. Exposes Student Support Services Peer Mentors to strategies and activities designed to enhance first-year students' abilities to learn, develop educational perspective, and improve academic performance. Topics include leadership, communication, conflict resolution, stress management, and various other mentoring skillsets. Maximum number of credits possible: 2. Tuition waived.  
 Prerequisites: Students must be chosen to be Student Support Services Peer Mentors to enroll in the course.

**HDEV 222** **2.00 credits**  
**Peer Mentoring II** **REEL**  
 Provides additional instruction for Peer Mentoring principles to Student Support services Peer Mentors to increase the retention, graduation, and transfer rate of first-generation, low-income, and students with disabilities who are enrolled as Student Support Services first-year participants. Exposes Student Support Services Peer Mentors to strategies and activities designed to enhance first-year students' abilities to learn, develop educational perspective, and improve academic performance. Topics include leadership, communication, conflict resolution, stress management, and various other mentoring skillsets. Maximum number of credits possible: 2. Tuition waived.  
 Prerequisites: HDEV 221 or instructor permission.

**HDEV 223** **1.00 credit**  
**Peer Mentoring III** **REEL**  
 Concludes training for Peer Mentoring principles to Student Support services Peer Mentors to increase the retention, graduation, and transfer rate of first-generation, low-income, and students with disabilities who are enrolled as Student Support Services first-year participants. Exposes Student Support Services Peer Mentors to strategies and activities designed to enhance first-year students' abilities to learn, develop educational perspective, and improve academic performance. Topics include leadership, communication, conflict resolution, stress management, and various other mentoring skillsets. Maximum number of credits possible: 2. Tuition waived.  
 Prerequisites: HDEV 222 or instructor permission.

**HDEV 288** **1.00-15.00 credits**  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**HDEV 299** **1.00-10.00 credits**  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisites: By instructor permission only.

**HDEV 75** **2.00 credits**  
**Journeys-A Workshop for Women**  
 Targets women in life transitions - divorce, empty nest, job loss, etc., and provides them with tools to understand the challenges involved in change and new beginnings. Explores the process of transition, models of adapting to change, self awareness, and self assessment. Participants will explore educational and career options, with a focus on non-traditional careers that offer high-wage, high-demand opportunities, and develop a personal Success Plan. Meets for seven weeks and is graded on a pass/fail basis.  
 Prerequisite: None

**HDEV 80** **2.00-7.00 credits**  
**Transitions**  
 Explores and develops the coping skills, attitudes, and behaviors needed to deal with job loss or underemployment and move forward with career and life planning. Main topics include dealing with job loss, assessing interests and skills, career exploration, goal setting, and job finding skills. Additional topics may include specialized skill assessment, financial management, utilizing community resources, advanced interview preparation, computerized job search. Skill building in reading, writing, math, and computers may also be integrated with these studies.  
 Prerequisite: None

**HDEV 90** **2.00 credits**  
**Success By Your Design**  
 Explores the connection between their thoughts and behaviors. Students will apply concepts in this interactive course to cultivate "Thought patterns for a Successful Career." Through self-reflection and discussion, students will examine thought processes and how to control them, as well as understand how the mind works to create beliefs, habits, and attitudes, thus re-calibrating them for success.  
 Prerequisite: None.

## Humanities (HUM)

### **HUM& 116** **F** **5.00 credits** **Humanities I** **HUM**

Survey of major movements in philosophy, art, music, architecture, and literature from prehistory to 1300 C.E. Students will explore, analyze, and discuss the era's masterpieces from around the world as well as the historical and cultural influences of the birth of civilization in the Near and Far East, the Classical Eras of Greece, Rome, and China, and the rise of Buddhism, Christianity, and Islam upon such works and the masters who created them.

Prerequisite: None

### **HUM& 117** **S,W** **5.00 credits** **Humanities II** **HUM**

Survey of major movements in philosophy, art, music, architecture, and literature from 1300 to 1800 C.E. Students will explore, analyze, and discuss the era's masterpieces from around the world as well as the historical and cultural influences of the Renaissance, the baroque period, the Reformation, the Enlightenment, the Scientific Revolution, and cross-cultural encounters upon such works and the masters who created them.

Prerequisite: None

### **HUM& 118** **Sp** **5.00 credits** **Humanities III** **HUM**

Survey of major movements in philosophy, art, music, architecture, and literature from 1800 C.E. to the present. Students will explore, analyze, and discuss the era's masterpieces from around the world as well as the historical and cultural influences of the Romantic Era, colonialism, Freudian theory, World Wars I and II, totalitarianism, postmodernism, and the Information Age upon such works and the masters who created them.

Prerequisite: None

### **HUM 104** **S,W** **5.00 credits** **Ethics and Cultural Values: DIV** **HUM, DIV**

Explores and analyzes moral issues from various perspectives and examines elements of virtue, duty, obligation, and rights from various classical, traditional, and contemporary systems as presented in Western, Hindu, Buddhist, Confucian, Islamic, and/or African writings, films, literature, and/or practices.

Prerequisite: None

### **HUM 106** **F,W,Sp** **1.00 credit** **Community Conversations** **ELEC**

A weekly presentation/discussion series addressing contemporary issues in American life. The areas and issues contemplated include politics, the family, religion, the environment, health care, the economy and other important issues.

Prerequisites: None

### **HUM 107** **F,W,Sp** **1.00 credit** **How to See a Play** **HUM, ELEC**

Read play produced by LCC Center Stage and attend performance. After performance, actors, director, and

designers participate in talkback session, answering questions prepared by students regarding play, production, and various elements required for a play presentation. Talkback includes social, political, philosophical and psychological components of the play and actor interpretation of the role(s) played.

Prerequisite: None

### **HUM 150** **F,W,Sp** **1.00 credit** **Ethics and Policy in Healthcare I** **HUM**

Introduces ethical and legal principles governing healthcare with a focus on nursing practice. Discusses historic milestones in nursing. First in a series of three courses on ethics and policy in healthcare. Restricted to students admitted to the nursing program.

Prerequisites: Admission to the nursing program  
Concurrent requirements: NURS 151 or Nursing Program Director permission

### **HUM 164** **Sp** **5.00 credits** **Cultural Journeys: DIV** **DIV, HUM**

Explores the rich cultural heritage of different nationalities, ethnic groups and regions as expressed through a people's music, literature, film, art and critical writing. Quarterly offerings will focus on different cultural groups and their attempts to develop a rich and complex understanding of human existence.

Prerequisites: None

### **HUM 210** **S,F,W,Sp** **5.00 credits** **Myth and Rites: DIV** **DIV, HUM**

Defines and explores examples of creation, flood, and resurrection myths as well as diverse examples of initiation, celebration, religious, and political rites from around the world and across time. The significance of such myths and rites are also explored through the analysis of works of drama, literature, and film.

Prerequisite: ENGL& 101

### **HUM 230** **W** **5.00 credits** **Thinking About Thinking** **HUM**

Examines and explores the role of critical thinking and analysis in evaluating written material to include literature, non-fiction prose, and media sources. Applies various models from formal logic and literary criticism to discover both the explicit and implicit meaning of fiction, non-fiction prose and media sources.

Prerequisites: ENGL& 101 (was ENGL 101) or instructor permission.

### **HUM 250** **F,W,Sp** **2.00 credits** **Ethics and Policy in Healthcare II** **HUM**

Presents organizational structures, legal considerations, policies, procedures and ethical principles/theories related to healthcare. Second course in a series of three courses. Restricted to students admitted to the nursing program.

Prerequisites: HUM 150 with a grade of 'C' or higher. Concurrent requirements: NURS 152 or Nursing Program Director permission

**HUM 251**                      **F,W,Sp**                      **2.00 credits**  
**Ethics and Policy in Healthcare III**                      **HUM**  
 Presents research, leadership, workplace issues and ethical dilemmas in healthcare with an emphasis on nursing. Final course in a series of three courses. Restricted to students admitted to the nursing program. Prerequisites: HUM 250 with a grade of 'C' or higher. Concurrent requirements: NURS 253 or Nursing Program Director permission

**HUM 255**                      **F**                      **3.00-5.00 credits**  
**Ethics and Policy in Healthcare**                      **HUM**  
 Introduces ethical and legal principles governing healthcare with a focus on nursing practice. Discusses historic milestones in nursing. Presents organizational structures, legal considerations, policies, procedures and ethical principles/theories related to healthcare. Builds upon previous concepts in research, leadership, workplace issues and ethical dilemmas in healthcare with an emphasis on nursing. Fulfills distribution requirement for AN-DTA only. Restricted to students admitted to the nursing program. LPNs opting in to the campus based program must take this course for 3 credits; LPN2RN eLearning students must take this course for 5 credits.  
 Prerequisite: Admission to the Nursing program.

**HUM 288**                      **1.00-15.00 credits**  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**HUM 299**                      **1.00-10.00 credits**  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisite: By Instructor Permission only.

## Individual Certificate Program (ICP)

### Information Technology (IT)

**IT 100**                      **S,F,W,Sp**                      **5.00 credits**  
**IT Fundamentals**                      **ELEC**  
 Develops the knowledge to identify and explain basic computer components, set up a basic workstation, conduct basic software installation, establish basic network connectivity, identify compatibility issues and identify/prevent basic security risks. This course will also focus on the areas of safety and preventative maintenance of computers and is intended for students who are considering a career in IT and later considering the pursuit of a Comptia A+ or similar certification.  
 Prerequisite: BUS 100

**IT 102**                      **W**                      **5.00 credits**  
**Introduction to Internet Theory, Application, and Web Page Design**                      **ELEC**  
 Offers concepts, fundamentals, and techniques of web page design, and introduction to Internet networking principles. Topics include web page usability, design principles and development, site planning, and implementation. (X)HTML scripting language and Cascading Style Sheets are used to create structural and presentational web pages. Students will use concepts presented in the course for development of personal and commercial web pages.  
 Prerequisite: IT 100 (was CS 100) with a grade of C or better, or instructor permission

**IT 104**                      **S**                      **5.00 credits**  
**Intermediate Web Page Design**                      **REEL**  
 Continuation of Web Page Design using client and server side scripted/programming languages and dynamic page coding to extend design capabilities and Web Site effectiveness. Methods introduced include browser control, security related issues, and Web Page structural/presentational control using these languages.  
 Prerequisite: IT 102 (was CS 102), or equivalent, or instructor permission.

**IT 111**                      **S,F,W,Sp**                      **4.00 credits**  
**Intro to Windows**                      **REEL**  
 Offers an introduction to the study of the Microsoft Windows operating system. Presents fundamental concepts of a Microsoft Windows client operating system such as file management and customizing a graphical user interface (GUI).  
 Prerequisite: None

**IT 140** **F** **4.00 credits**  
**Configuring Windows Operating System REEL**  
 Presents installing, deploying, configuring, monitoring, and maintaining systems that run Microsoft Windows OS. Installation, system images, application, networking, resource allocation, mobile computing, monitoring, maintenance, backup, and recovery topics are included. Continues to prepare students for Microsoft's Certification: Configuring Windows Operating System.  
 Prerequisite: IT 100 IT Fundamentals (5 credits)

**IT 141** **F,W** **4.00 credits**  
**PC Technician I REEL**  
 Provides an overview of the roles of the PC technician including: protection and safety of users, acting in a professional manner, communication, and documentations are examined. Technical topics include installation, maintenance, and troubleshooting of system components, peripheral devices, storage, printers, mobile devices, and networking. Prepares students for TestOut's PC Pro and CompTIA's A+ certification exams.  
 Prerequisite: IT 100 (was CS 100) with a C or better, or instructor permission.

**IT 142** **Sp** **4.00 credits**  
**PC Technician II REEL**  
 Continues an overview of the roles of the PC technician including: protection and safety of users, acting in a professional manner, communication, and documentations are examined. Technical topics include installation, maintenance, and troubleshooting of system components, peripheral devices, storage, printers, and networking. Continues preparation of students for TestOut's PC Pro and CompTIA's A+ certification exams.  
 Prerequisites: IT 141 (was CS 141) with a grade of C or better, or instructor permission.

**IT 211** **F** **5.00 credits**  
**Introduction to Networking REEL**  
 Introduces the fundamental building blocks that form a modern network, such as protocols, media, topologies, and hardware. It then provides in depth coverage of the most important concepts in contemporary networking, such as TCP/IP, Ethernet, wireless transmission, virtual networks, security, and troubleshooting. This course is focused on preparing students for the COMPTIA Network + Certification.  
 Prerequisite: IT 140 with a grade of C or better or instructor permission.

**IT 212** **W** **5.00 credits**  
**Installing and Configuring Windows Server REEL**  
 Provides in-depth knowledge of Windows Server, including installation, local and remote management, file and storage services, Active Directory, group policies, TCP/IP, networking services, and Hyper-V virtualization has been acquired. This course prepares students for Microsoft server certification exam objectives and focuses on the skills needed to install and configure Windows Server.  
 Prerequisite: IT 211 (was CS 211) with a grade of C or better or instructor permission.

**IT 213** **Sp** **5.00 credits**  
**Local Area Networks: Configuring Windows Server Network Infrastructure REEL**  
 Prepares students for the Microsoft Technology Specialist exam: Windows Server Network Infrastructure Configuring. Focuses on the details of configuring the infrastructure of a network.  
 Prerequisites: IT 212 (was CS 212) with a grade of C or better or instructor permission.

**IT 220** **Sp** **3.00 credits**  
**Intro to Cloud Computing REEL**  
 Provides an overview of cloud computing from a non-technical perspective. Includes the value of cloud computing, cloud types, adoption of the cloud, impact and changes on IT services, and risks of implementation. Prepares students for the CompTIA Cloud Essentials certification Cloud+. Includes both theoretical study of cloud computing and hands on labs.  
 Prerequisites: IT 140 (was IT 143) or IT 211 (was CS 211) with a grade of C or better, or instructor permission.

**IT 230** **F** **5.00 credits**  
**Database Development REEL**  
 Offers further study and use of computerized database management systems. Provides intermediate theory and practice in a disciplined approach to problem solving using a database management system in a business environment.  
 Prerequisite: BTEC 135, Advanced Data Analysis with a grade of C or better, or instructor permission.

**IT 235** **5.00 credits**  
**Introduction to Big Data REEL**  
 Provides an introduction to concepts used in data mining and data-analytics, including exploration and application of data modeling tools.  
 Prerequisites: IT 230 (was CS 230) with a grade of C or better, or instructor permission.

**IT 249** **W** **5.00 credits**  
**Linux Operating Systems** **REEL**

Prepares students for application of Linux+ certification knowledge and skills. Course is focused on meeting Comptia Linux+ certification objectives in both knowledge and hands on lab practice. It is recommended that most students will need some experience with Linux in the work place prior to attempting the Linux+ exam.

Prerequisites: IT 140 (was IT 143) and IT 211 (was CS 211) each with a grade of C or better, or instructor permission.

**IT 260** **Sp** **5.00 credits**  
**Info Tech Security** **REEL**

Prepares students for application of Security+ certification knowledge and skills. Course is focused on meeting Comptia Security+ certification objectives in both knowledge and hands on lab practice. It is recommended that most students will need some experience with Linux in the work place prior to attempting the Security+ exam.

Prerequisites: IT 211 (was CS 211) with a grade of C or better, or instructor permission.

**IT 288** **1.00-15.00 credits**  
**Cooperative Work Experience**

Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.

Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**IT 294** **F,W** **2.00 credits**  
**Career Success** **REEL**

Provides preparation for pursuing a career in business technology, with a focus on self-assessment, job search, application process documents, and interviewing techniques. This course is intended for Information Technology students in their second year. Students should enroll in this course during one of the last two quarters of their program.

Prerequisite: None.

**IT 299** **1.00-10.00 credits**  
**Independent Study**

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisite: By Instructor Permission only.

## Intensive English as a Second Language (IESL)

**IESL 299** **1.00-10.00 credits**  
**Independent Study**

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisite: By instructor permission only.

**IESL 61** **S,F,W,Sp** **5.00 credits**  
**Speaking/Listening I**

Provides practice in listening to everyday conversational vocabulary in a variety of meaningful contexts as a falst-beginner level. Requires students to respond to simple questions, follow short dialogs, and identify topics in short passages with familiar or pre-taught vocabulary. The speaking portion of the course is designed for students with limited knowledge about English from previous study. Provides practice in speaking English at a beginner level. Improves pronunciation through practice in production of consonant sounds, intonation and rhythm. Focuses on conversational language using familiar topics in a variety of everyday contexts. Introduces culture of the American classroom. This course is part of an intensive English program and provides speaking and listening practice for beginning level. This course may be repeated as needed until reaching competency. Successful completion at an 80% or better allows a student to transition into a level II speaking and listening intensive English course.

Prerequisites: None Concurrent requirements: IESL Reading, IESL Writing, IESL Grammar

**IESL 62                    S,F,W,Sp                    5.00 credits**  
**Speaking/Listening II**

Provides listening practice in listening a high intermediate level. Strengthens listening skills by building vocabulary and by listening to longer passages and dialogs. Requires students to listen regularly to and understand main ideas in authentic sources of English (TV, radio, video, interviews, etc.) and to comprehend paragraph-length listening passages with familiar or pre-taught vocabulary. Provides speaking practice at the high-intermediate level. Provides more practicing speaking through use of natural situation language and functional language. Provides conversation practice on everyday topics. Stresses ability to discriminate and produce vowel and consonant sounds, to use correct word order, and to respond in complete sentences. This course is part of an intensive English program and provides speaking and listening practice for beginning to intermediate level. This course may be repeated as needed until reaching competency. Successful completion allows a student to transition into a level III speaking and listening intensive English course.

Prerequisites: Completion of IESL level I at an 80% or better or testing placement at level II. Concurrent requirements: IESL - Reading, IESL - Writing, IESL - Grammar

**IESL 63                    S,F,W,Sp                    5.00 credits**  
**Speaking/Listening III**

Provides listening practice in listening to everyday conversational vocabulary in a variety of meaningful contexts at a low -intermediate level. Requires students to respond to simple questions, follow short dialogs, and identify topics in short passages with familiar or pre-taught vocabulary. Provides students practice in speaking English at a low -intermediate level. Improves pronunciation through practice in production of consonant sounds, intonation and rhythm. Focuses on conversational language using familiar topics in a variety of everyday contexts. Introduces culture of the American classroom. This course is part of an intensive English program and provides speaking and listening practice for high -intermediate level.

Prerequisites: Completion of IESL level II at an 80% or better or testing placement at level III. Concurrent requirements: IESL Reading, IESL Writing, IESL Grammar

**IESL 64                    S,F,W,Sp                    5.00 credits**  
**Speaking/Listening IV**

Provides practice in listening to academic English in both formal and informal contexts. Develops skills in listening to *¿real¿* English outside the classroom, comprehending reduced speech and fast idiomatic English, and lecture note taking. Provides speaking practice at the academic level of English. Focuses on discussions of cultural or controversial topics or current events. May require pre-discussion activities in listening or reading as preparation. Provides clarification as needed on degrees of formal and informal language, metaphorical speech, euphemisms, and *¿sexist¿* language. Stresses production of comprehensive English. Reinforces understanding of the culture of the American classroom. This course is part of an intensive English program and provides speaking and listening practice for high level. This course may be repeated as needed until reaching competency. Successful completion allows a student to transition out of speaking and listening intensive English courses.

Prerequisites: Completion of IESL level III in speaking/ listening at an 80% or better or testing placement at level IV Concurrent: IESL Reading, Writing, Grammar if not at an 80% at level IV

**IESL 71                    S,F,W,Sp                    5.00 credits**  
**Reading I**

Develops reading comprehension for everyday uses, such as reading and understanding directions, forms, letters, short dialogs and stories. Provides instruction and practice in reading strategies, including pre-reading activities (prediction), understanding of spelling patterns, use of context clues, checking for meaning and identifying details. Introduces reading fluency. This part of the International Program and this course may be repeated until successful progress at 80% or better has been met.

Prerequisites: None Concurrent requirements: IESL - Speaking/Listening, IESL - Writing, IESL - Grammar

**IESL 72                    S,F,W,Sp                    5.00 credits**  
**Reading II**

Provides reading practice with intermediate level reading materials in both non-fiction and fiction. Provides practice with previously learned reading strategies, including pre-reading activities (prediction), understanding of spelling patterns, use of context clues, checking for meaning and identifying details. Introduces reading fluency testing to build fluency and flow in reading. Identifies core academic vocabulary lists. This is part of the International Program and this course may be repeated until successful progress has been met.

Prerequisites: Completion of IESL 071 at an 80% or better or testing into level II reading. Concurrent requirements: IESL - Speaking/Listening, IESL - Writing, IESL - Grammar



- IESL 73**                    **S,F,W,Sp**                    **5.00 credits**  
**Reading III**  
 Provides practice for use of comprehension strategies necessary for independent reading. Increases reading fluency while building literary and academic vocabulary. Develop strategies to help extract the main idea, supporting details, and the author's purpose in texts. Requires in-depth reading of academic materials in both print and online formats. Builds higher level academic vocabulary. This course may be repeated until successful progress has been met at 80% or higher.  
 Prerequisites: IESL 072 completion at an 80% or better or placement testing into level III. Concurrent requirements: IESL - Speaking/Listening, IESL - Writing, IESL - Grammar
- IESL 74**                    **S,F,W,Sp**                    **5.00 credits**  
**Reading IV**  
 Provides practice for extracting key elements in a text. Increase reading fluency while building literary and academic vocabulary. Identify the author's purpose in texts and expand on the inferred meaning. Identifies how to summarize reading of academic materials in both print and online formats. Utilized prior learning to make predictions, analyze and make inferences about texts. This is part of the International Program and this course may be repeated until successful progress has been met at 80% or better at Level IV.  
 Prerequisites: IESL 073 with an 80% or higher or testing into Level IV. Concurrent requirements: IESL courses at any level lower than IV.
- IESL 81**                    **S,F,W,Sp**                    **5.00 credits**  
**Writing I**  
 Provides practice in writing for simple and compound sentence development; simple tenses; declarative, question, and imperative forms; and singular and plural forms of nouns and verbs. Identifies and models the steps in the writing process related to paragraph development. Focuses on writing at the complete sentence level. This course may be repeated as needed.  
 Prerequisites: None Concurrent requirements: IESL Speaking/Listening, Reading and Grammar
- IESL 82**                    **S,F,W,Sp**                    **5.00 credits**  
**Writing II**  
 Focuses on writing at the paragraph and beginning essay level. Develops understanding of the writing process related to essay writing. Reviews and teaches articles, gerunds, modals, infinitives and the use of past perfect and past progressive verbs. Provides writing practice for concept mapping/webs, outlines, rough drafts, peer revision and final drafts of basic essays. This course may be repeated as needed.  
 Prerequisites: Successful completion of Writing I at an 80% or better or testing into Writing II. Concurrent requirements: IESL Speaking/Listening, Reading and Grammar
- IESL 83**                    **S,F,W,Sp**                    **5.00 credits**  
**Writing III**  
 Extends writing skills at the paragraph and essay levels of organization. Provides opportunities to

develop planning, organizing and revising strategies for development of academic level writing. Reinforces skills gained in previous levels for summarizing and writing essays. This course may be repeated as needed.  
 Prerequisites: Successful completion of Writing II at an 80% or better or testing into Writing III. Concurrent requirements: Other IESL courses if below level IV in any subject area.

- IESL 84**                    **S,F,W,Sp**                    **5.00 credits**  
**Writing IV**  
 Focuses on college writing. Provides opportunities to improve planning and organizing academic writing. Requires utilization of revision strategies for development of academic level writing. Reinforces skills gained in previous levels for summarizing and writing essays. Identifies strategies to respond/react to writing a summary of the main points of a textbook and how to evaluate own academic writing skills. This course may be repeated as needed.  
 Prerequisites: Successful completion of Writing III at an 80% or better or testing into Writing IV. Concurrent requirements: IESL courses at levels below IESL IV and or English 101

- IESL 90**                    **W**                    **1.00-3.00 credits**  
**Special Projects - Academic General Support**  
 Provides opportunities for the study of various topics in the transitional phase into college-level classes. Provides individualized study in any area of listening, speaking, reading, writing, or grammar. Includes goal setting and measurement of goals for a lacking academic area. Supports international students who are struggling in one or more subject areas. This course may be repeated for credit depending on student academic progress in college level courses.  
 Prerequisites: None.

- IESL 91**                    **W**                    **1.00-3.00 credits**  
**Special Projects - Academic English**  
 Provides opportunities for the study of various topics in the transitional phase into college-level English class (English 101 or above). May serve as an opportunity for individualized study in any area of listening, speaking, reading, writing, or grammar. Includes goal setting and measurement of goals for English classes (English 101 or above). Supports international students who are struggling in a college level English course. This course may be repeated for credit depending on student academic progress in college level courses.  
 Prerequisites: None Concurrent requirements: English 101 or above

**IESL 93 S,F,W,Sp 3.00 credits  
Grammar I**

Introduces students to the simple present tense verb 'to be'. Models how to add articles, adjectives, and nouns. Introduces students to other simple present tense statements, negatives, questions, and short answers. Identifies imperatives, adverbs of frequency, and simple modals. Introduces students to new tenses: present continuous, simple past, future going to and will, and present perfect. This course may be repeated until student reaches 80% proficiency at this level.

Prerequisites: None Concurrent requirements: IESL - Reading, IESL - Writing, IESL - Speaking/Listening

**IESL 94 S,F,W,Sp 3.00 credits  
Grammar II**

Introduces students to new tenses: present continuous, simple past, future going to and will, and present perfect. Introduces them to possessive, direct and indirect objects, linking verbs, quantifiers, comparatives, superlatives, more advanced modals, and conditionals. This course may be repeated until student reaches proficiency at this level.

Prerequisites: Complete Grammar I at an 80% or better or test into level II. Concurrent requirements: IESL - Reading, IESL - Writing, IESL - Speaking/Listening

**IESL 95 S,F,W,Sp 3.00 credits  
Grammar III**

Develops use of simple present, present continuous, simple past, future going to and will, and present perfect. Develops use of possession, direct and indirect objects in writing. Uses linking verbs, quantifiers, comparatives, superlatives, more advanced modals, and conditionals. Introduces new concepts: passive voice. Develops use of passive voice in simple present and past tense. Introduces past perfect tense. Introduces unreal conditionals, gerunds and infinitives, adjective clauses, adverbial clauses, negative questions. This course may be repeated until student reaches proficiency at this level.

Prerequisites: Complete Grammar II at an 80% or better or test into Grammar III. Concurrent requirements: IESL courses in subjects with a less than 80% proficiency at level IV.

**IESL 96 S,F,W,Sp 3.00 credits  
Grammar IV**

Focuses on constructing complete, complex, compound and complex/compound sentences. Develops skills in use of colon, semi-colon, commas, quotations and split quotations. Uses unreal conditionals, gerunds and infinitives, adjective clauses, adverbial clauses, negative questions. Develops use of passive voice in other tenses. Identifies misused words, word families, abbreviations and how to correct double negatives. This course may be repeated until student reaches proficiency at this level.

Prerequisites: Complete Grammar III at an 80% or better or test into level IV. Concurrent requirements: IESL courses with a lower than 80% proficiency below level IV.

**Library (LIBR)****LIBR 101 2.00 credits  
Introduction to Library and Information Research REEL**

Introduces students to the basic principles of information research. Emphasis is placed on the process of locating and evaluating information in both print and online formats. Includes basic introduction to searching the Internet, online databases, online library catalogs, and the use of various tools to access information. An annotated bibliography will be developed in an academic area of the students' choice. This course is especially helpful to those enrolled in classes with a required research paper.

Prerequisite: None.

**LIBR 104 2.00 credits  
Information Literacy II REEL**

Reinforces basic research skills, strategies, and tools of information. Develops an understanding of the entire research process, from identifying topics to creating an annotated bibliography. Topics include narrowing and refining electronic searches, finding access to many types of resources, and evaluating popular and scholarly sources using a variety of criteria. Avoidance of plagiarism and correct documentation will be emphasized.

Prerequisite: None

**LIBR 204 1.00-2.00 credits  
Information Literacy III REEL**

Guides students through the process of designing and completing a complex research assignment. Emphasis will be placed on evaluating information, including assessing the differences between databases and applying a rubric of information evaluation. Additional topics addressed include proper usage of quotations, citation styles, and annotated bibliographies. Part 1 includes refining a research topic, finding sources, and identifying and avoiding plagiarism. Part 2 focuses on evaluation and annotation of sources and reflection on the research project.

Prerequisite: None

**LIBR 288 1.00-15.00 credits  
Cooperative Work Experience**

Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.

Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**LIBR 299** **1.00-10.00 credits**  
**Independent Study**

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisites: By instructor permission only.

**LIBR 94** **2.00 credits**  
**Information Literacy I** **REEL**

Introduces students to the basic skills, strategies, and tools of information research. Emphasis is placed on the process of identifying information needs, selecting appropriate sources, and evaluating information for accuracy. Students will gain competency in using traditional resources, e.g., the library catalog, and also explore electronic resources such as databases and Internet search engines.

Prerequisite: None

## Machine Trades (MASP)

**MASP 107** **S,F,W,Sp** **2.00-6.00 credits**  
**Machining for Related Occupations** **REEL**

This course will expose students to three basic types of machine tools as well as general shop safety, layout, cutting tool geometry, and precision measuring. The three areas of focus will be hole operations such as drilling, reaming, and tapping, engine lathe operations such as turning, facing, and boring, and the basic operation of the vertical milling machine.

Prerequisite: None

**MASP 111** **S,F,W,Sp** **2.00-10.00 credits**  
**Machine Shop I** **REEL**

Designed to introduce the beginning student to the safe operation of basic hand tools, saws, bench grinders, drill press and the engine lathe. The student will use these tools to complete basic projects designed to use the equipment in a wide variety of operations to develop basic skills.

Prerequisite: None

**MASP 112** **S,F,W,Sp** **2.00-10.00 credits**  
**Machine Shop II** **REEL**

Continues building skills learned in MASP 111, while expanding the scope to include more advanced procedures on equipment used in the previous class. This class also introduces new equipment such as a shaper and surface grinder, along with tools and procedures required for their safe operation.

Prerequisite: 10 credits of MASP 107 and/or MASP 111

**MASP 113** **S,F,W,Sp** **2.00-10.00 credits**  
**Machine Shop III** **REEL**

Teaches students the use of milling machines and carbide cutting tools. This course will cover various techniques of holding parts and the proper use of different styles of machinery. The student will also learn to apply basic and advanced procedures to accomplish the required tasks.

Prerequisite: 10 credits of MASP 112

**MASP 204** **S,F,W,Sp** **3.00 credits**  
**CNC Machining Center Fundamentals** **REEL**

This course introduces students to the history, theory, and workings of computer numerically controlled Machining Centers. The course provides a basic understanding of the required skills to program, set-up, and operate computerized machine tools.

Prerequisite: None

**MASP 205** **S,F,W,Sp** **3.00 credits**  
**CNC Turning Center Fundamentals** **REEL**

This course introduces students to the history, theory, and workings of computer numerically controlled Turning Centers. The course provides a basic understanding of the required skills to program, set-up, and operate computerized machine tools.

Prerequisite: None

**MASP 221** **F,W,Sp** **2.00-10.00 credits**  
**CNC Milling** **REEL**

Introduces students through hands-on experience to the basic operations of CNC machines. Working with computer controlled mills, basic machine functions are used to produce parts of various shapes that could not be easily made on conventional equipment.

Prerequisite: MASP 204

**MASP 222** **F,W,Sp** **2.00-10.00 credits**  
**CNC Turning** **REEL**

Introduces students through hands-on experience to the basic operations of CNC machines. Working with computer controlled turning centers, basic machine functions are used to produce parts of various shapes that could not be easily made on conventional equipment.

Prerequisite: MASP 205

**MASP 223** **F,W,Sp** **2.00-10.00 credits**  
**Advanced CNC Processes** **REEL**

This course exposes the student to advanced machining practices on the CNC Machining Center and CNC Turning Center including introduction of 4th axis set-ups and programmable tailstock operations. It will also include nontraditional set-ups.

Prerequisite: MASP 221 or MASP 222

**MASP 288 F,W,Sp 1.00-15.00 credits  
Cooperative Work Experience**

Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.

Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**MASP 299 F,W,Sp 1.00-10.00 credits  
Independent Study**

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisites: By instructor permission only.

**MASP 71 1.00 credit  
Machine Shop Support I REEL**

Introduces machine shop practices. This theory course addresses topics such as the appropriate uses and safe operation of basic hand tools, saws, bench grinders, drill press and the engine lathe.

Prerequisite: None Concurrent requirement: MASP 111

**MASP 72 1.00 credit  
Machine Shop Support II REEL**

Introduces machine shop practices. This theory course addresses topics such as basic metallurgy and the appropriate uses and safe operation of milling machines and grinding machines.

Prerequisite: None Concurrent requirement: MASP 111

## Manufacturing (MFG)

**MFG 100 S,F,W,Sp 3.00 credits  
Foundational Skills For The Trades REEL**

Emphasizes development of foundational skills for successful completion of vocational courses. Develops techniques and strategies in time management, study habits, technical reading, communication, computer literacy, and test preparation. Explores career options while learning industry related terminology, tools and LCC shop practices.

Prerequisites: None

**MFG 105 S,F,W,Sp 3.00 credits  
Industrial Safety REEL**

Provides instruction on safety topics and practices specifically related to industrial work environments. Topics include an overview of OSHA/WISHA requirements, personal protective equipment, energy lock-out/tag-out procedures, material handling, electrical safety, machine guarding, hazardous materials, fire prevention, hazard identification and control, and safety inspection.

Prerequisite: None

**MFG 110 4.00 credits  
Project Management REEL**

The course is an introduction to the theory of project development procedures. The concepts used for project management will include scheduling by means of the critical path method. The fundamentals of CPM will be presented and the concepts applied with software used in industry. Basic job estimating theory will be presented and applied using current industrial software.

Prerequisite: None

**MFG 115 F 5.00 credits  
Manufacturing Process REEL**

A compressive study of the processing of materials, industry standards, and the manufacturing techniques that expose students to the basic types of machine tools as well as cutting tool geometry and precision measuring.

Prerequisite: None

**MFG 120 Sp 4.00 credits  
Quality Assurance REEL**

Provides the student with a comprehensive introduction to the principles and purpose of Quality Assurance Management in industry. The student will also gain basic understanding of the quality control tools used in industry, such as standard deviation, histograms, distribution curves, etc.

Prerequisite: None.

**MFG 130 F,W 5.00 credits  
Materials Science REEL**

Material Science is a study of the nature, structure, characteristics, and properties of natural and synthetic materials used in contemporary industry. Emphasis will be placed on understanding how the structure and properties of industrial influence the selection of primary materials and their conversion into useful products.

Prerequisite: None

**MFG 140 F 4.00 credits  
Applied Hydraulics REEL**

Covers basic problems of hydraulics, fluids, power, hydraulics actuators, controls, pressures and circuits, and principles of industrial applications.

Prerequisite: MATH 091 or higher or instructor permission.

**MFG 205 3.00 credits  
Work Teams in Industry REEL**

Explores the interpersonal skills, group roles, team structures, problem solving techniques, and work ethics necessary for success in modern industrial organizations. Practical exercises are used to allow students to develop critical skills.

Prerequisite: None

**MFG 230** Sp 4.00 credits  
**Computer Integrated Manufacturing** REEL  
 Introduces the student to the basic concepts of Computer Integrated Manufacturing and provides a foundation for applying those concepts in actual industrial situations. The course also introduces the student to CAD/CAM concepts and their function in the design and manufacturing process. Students will use specialized software to design parts, simulate the machining process, and observe the production of actual machine parts.  
 Prerequisite: MASP 221 or MASP 222

**MFG 288** 2.00 credits  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission  
 Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**PMFG 110** W 5.00 credits  
**Industrial & Predictive Maintenance Fundamentals** REEL  
 Introduces essential elements of industrial maintenance. Provides an overview of the jobs and tasks generally performed in manufacturing operations. Covers an overview of general types of industrial equipment, the proper use of a variety of hand tools and measuring instruments, and an exploration of fasteners, bearings, bushings, seals, and lubrication systems. Presents safety procedures including lockout/tag out of electrical/mechanical energy systems, sketching using ANSI standards, layout and machinery installation, and basic troubleshooting techniques.  
 Prerequisites: None

**PMFG 150** F 6.00 credits  
**Electrical and Electronic Fundamentals** REEL  
 Introduces the nature and principles of electricity and electrical/electronic devices. Focuses on general principles, safety, industrial applications, and includes topics related to both DC and AC circuits. Topics explored include basic theory and direct current circuits, measuring instruments, interpretation of electrical and schematic diagrams, ohms law, basic electrical circuit analysis, applied mathematical concepts used in solving for values in series and parallel circuits, electrical safety and basic magnetic concepts. Additional topics are alternating current circuits, the use of AC measuring instruments, single phase and three phase AC distribution systems, transformers, and an overview of basic electronic devices, their function, and common applications. The course is designed for individuals entering the electrical trades, maintenance personnel or production/process operators.  
 Prerequisites: MATH 087 or MATH 088/TECH 088 or higher or concurrent enrollment, or instructor permission

**PMFG 151** F 5.00 credits  
**Process Control Equipment** REEL  
 Provides an overview of process control equipment for operating personnel in industries utilizing process manufacturing techniques. Introduces the fundamentals of process control, control equipment and equipment fault identification and troubleshooting.  
 Prerequisites: None

**PMFG 154** 5.00 credits  
**Fundamentals of Instrumentation and PLCs** REEL  
 Introduces principles of instrumentation controls and devices. Discusses the process of converting information into electrical or pneumatic signals for measurement and control, and its industrial applications. Introduces compressed air systems, programmable logic control, current-to-pressure, and piping instrument diagrams. Builds on knowledge of electrical fundamentals.  
 Prerequisites: PMFG 150 and PMFG 151 or instructor permission.

**PMFG 201** W 3.00 credits  
**Electrical Control Equipment** REEL  
 Introduces the operation, troubleshooting, and adjustment of various types of electrical control equipment. Fuses, molded case circuit breakers, and control switches are covered. Includes basic principles of motor starters and troubleshooting of control circuits.  
 Prerequisite: PMFG 150 or instructor permission.

**PMFG 202** Sp 2.00 credits  
**Electric Motors** REEL  
 Covers the concepts, maintenance, and testing of AC and DC motors. Includes a study of components and operation of a variety of AC motors and DC motors. Single-phase and three-phase motors are covered.  
 Prerequisite: PMFG 201 or instructor permission.

**PMFG 210** Sp 5.00 credits  
**Advanced Industrial Maintenance** REEL  
 Explores more advanced industrial maintenance topics, including preventative maintenance, centrifugal pump repair, valve repair, rigging and lifting, vibration analysis, and shaft alignment. Safe work practices are stressed, and relevant safety topics are covered during the course.  
 Prerequisite: PMFG 110 or instructor permission.

**PMFG 220** Sp 5.00 credits  
**Introduction to Renewable Energy** REEL  
 This course provides an introduction to renewable energy sources. Topics will include biomass for fuels and electricity generation, solar, wind, geothermal and hydroelectric energy. Students will compare technology, social, environmental and economic impacts of renewable energy. Upon completion, students will be able to demonstrate an understanding of renewable energy and its impact on humans and the environment.  
 Prerequisites: MATH 089/TECH 089 or MATH 097 and ENGL 099 or higher or instructor permission

**PMFG 288** **1.00-15.00 credits**  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission  
 Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**PMFG 299** **1.00-10.00 credits**  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisites: By instructor permission only.

## Math (MATH)

**MATH& 107** **S,F,W,Sp** **5.00 credits**  
**Math in Society** **NSCI**  
 Functions as a terminal course in mathematics for students whose major does not require further mathematics. The core topics of this course are logic, probability and statistics. Additional topics will be selected by the instructor. These topics could include geometry, number systems, linear programming, set theory, number theory, functions, graph theory, topology, etc.  
 Prerequisites: MATH 098/TECH 098 or MATH 099/TECH 099 or MATH 087/097 with a grade of C or better.

**MATH& 131** **F** **5.00 credits**  
**Math for Elementary Educators 1** **ELEC, NSCI**  
 Strengthens students understanding of problem solving, operations on whole numbers, decimals and fractions, and number theory. First of two-part series.  
 Prerequisites: MATH 098/TECH 098 or MATH 099/TECH 099 or MATH 087/097 with a grade of C or better.

**MATH& 132** **W** **5.00 credits**  
**Math for Elementary Educators 2** **NSCI**  
 Strengthens students understanding of the real number system, probability and statistics, geometry, measurement, functions and graphs. Second of a two-part series.  
 Prerequisites: MATH& 131 (was MATH 121) with a grade of C or better. (MATH& 107 (was MATH 130) is recommended).

**MATH& 141** **S,F,W,Sp** **5.00 credits**  
**Precalculus I** **NSCI**  
 Reviews basic algebraic operations, equations, inequalities, and operations on functions. Analyzes and graphs polynomial, rational, exponential, and logarithmic functions. This is the first course in a two course sequence leading to calculus.  
 Prerequisites: Placement score or MATH 098 and 099 (or TECH 098 and 099) with a C or better

**MATH& 142** **S,F,W,Sp** **5.00 credits**  
**Precalculus II** **NSCI**  
 Covers concepts, properties and algebra of trigonometric functions, including their graphs, inverses, law of sines and cosines, identities, and equations. Introduces parametric and polar coordinates and vector operations. This is the second course in a two course sequence leading to calculus.  
 Prerequisites: Placement score or MATH& 141 with a C or better.

**MATH& 146** **S,F,W,Sp** **5.00 credits**  
**Introduction to Statistics** **NSCI, ELEC**  
 Introduces descriptive statistics, probability, and inferential statistical methods. Topics include probability distributions, sampling techniques, measures of central tendency and dispersion, correlation, regression, and statistical inference.  
 Prerequisites: MATH 099 or MATH 097 with a grade of C or better or appropriate placement test score.

**MATH& 148** **W,Sp** **5.00 credits**  
**Business Calculus** **NSCI**  
 Introduces calculus concepts needed by students of management, social science or biology, or can serve as a survey course for liberal arts majors. Course covers sets, systems of numbers, relations and functions, limits, differentiation and integration, including the definite integral, exponential and logarithmic functions and applications from various fields. (Formerly known as MATH 140)  
 Prerequisite: MATH 125 OR MATH& 141 with a grade of C or better.

**MATH& 151** **F,W** **5.00 credits**  
**Calculus I** **NSCI, ELEC**  
 Investigates the ideas of continuity and limit, introduces the derivative as a limit, practices techniques for computing derivatives of functions, discusses the mean value theorem and its significance, utilizes these concepts to solve problems involving related rates and extreme values.  
 Prerequisites: MATH& 142 with a grade of C or better.

**MATH& 152** **W,Sp** **5.00 credits**  
**Calculus II** **NSCI**  
 Introduces techniques of antidifferentiation of functions including trigonometric, logarithmic, exponential, and hyperbolic functions. Applies the concept of the definite integral to solve problems involving force, work, volume, surface area, business and economics.  
 Prerequisite: MATH& 151 with a grade of C or better.

**MATH& 153** **S,Sp** **5.00 credits**  
**Calculus III** **NSCI**  
 Focuses on infinite series, vector calculus and their applications. Incorporates the use of polar, cylindrical and spherical coordinate systems in applications of the calculus.  
 Prerequisite: MATH& 152 with a grade of C or better.



- MATH 74** **1.00 credit**  
**Math Orientation**  
 Emphasizes the attributes of a successful math student by providing strategies for overcoming math and test-taking anxiety as well as note-taking, problem solving, and time management. Refresher of fundamental math operations and training on technology used in the classroom included. Topics reviewed may include fractions, decimals, signed numbers, ratio, percent, proportion, order of operations, and vocabulary.  
 Prerequisite: None
- MATH 78** **S,F,W,Sp** **3.00 credits**  
**Pre-College Math I**  
 Covers operations on the real numbers (fractions, decimals, integers, etc.) and introduces the concepts of ratios, proportions, and percents with an emphasis on contextual learning. This is the first 3 credits of a 6 credit course designed to prepare students for either a non-STEM pathway or an algebra intensive pathway. Credit cannot be earned for both MATH 078 and TECH 078.  
 Prerequisites: B or higher in ABE 062 Level B or placement test
- MATH 79** **S,F,W,Sp** **3.00 credits**  
**Pre-College Math I**  
 Covers operations on and applications of ratios, proportions, and percents. Also includes topics in geometry and measurement with an introduction to algebraic expressions. Emphasis is placed on contextual learning. This is the second 3 credits of a 6 credit course designed to prepare students for either a non-STEM pathway or an algebra intensive pathway.  
 Prerequisites: C or better in MATH 078 or placement test
- MATH 87** **S,F,W,Sp** **3.00 credits**  
**Essentials of Pre-College Math II**  
 Provides an introduction to algebraic concepts such as algebraic expressions, linear equations, and linear functions with an emphasis on contextual learning. This is the first 3 credits of a 6 credit course designed for students who are not planning on taking a course in calculus.  
 Prerequisites: C or better in MATH 079, Placement Exam, or Instructor Permission
- MATH 88** **S,F,W,Sp** **3.00 credits**  
**Pre-College Math II**  
 Covers solving linear equations and inequalities and an introduction to graphing. Techniques and strategies for problem solving are emphasized. This is the second in a three quarter pre-college mathematics sequence which contains pre-college math modules 06-08. Credit cannot be earned for both MATH 088 and TECH 088.  
 Prerequisite: C or better in MATH 079 or TECH 079, placement exam, or instructor permission.

- MATH 89** **S,F,W,Sp** **2.00 credits**  
**Pre-College Math II**  
 Covers solving systems of linear equations and operations on polynomials. This is the continuation of the second in a three quarter pre-college mathematics sequence which contains pre-college math modules 09-10. Credit cannot be earned for both MATH 089 and TECH 089.  
 Prerequisites: C or better in MATH 087 or MATH 088 or TECH 088, placement exam, or instructor permission.

- MATH 97** **S,F,W,Sp** **3.00 credits**  
**Essentials of Pre-College Math III**  
 Provides further exploration of algebraic concepts such as linear equations, exponential functions, and an introduction to statistical concepts with an emphasis on contextual learning. This is the last 3 credits of a 6 credit course designed for students who are not planning on taking a course in calculus.  
 Prerequisites: C or better in MATH 087 or MATH 089

- MATH 98** **S,F,W,Sp** **3.00 credits**  
**Pre-College Math III**  
 Covers factoring polynomials and operations on rational expressions. Also provides an introduction to functions, logarithms, and exponentials. This is the third in a three quarter pre-college mathematics sequence which contains pre-college math modules 11-13. Credit cannot be earned for both MATH 098 and TECH 098.  
 Prerequisites: C or better in MATH 089 or TECH 089 or MATH 097, placement exam, or instructor permission.

- MATH 99** **S,F,W,Sp** **2.00 credits**  
**Pre-College Math III**  
 Covers operations on radical expressions as well as solving and graphing quadratic equations. This is the continuation of the third in a three course pre-college mathematics sequence which contains pre-college math modules 14-15. Credit cannot be earned for both MATH 099 and TECH 099.  
 Prerequisites: C or better in MATH 098 or TECH 098, placement exam, or instructor permission.

## Medical Assisting (MEDA)

- MEDA 101** **F,W,Sp** **3.00 credits**  
**Medical Vocabulary I** **REEL**  
 Introduces basic anatomy & physiology while providing a foundation for building a medical vocabulary including the study of prefixes, roots, suffixes, combining forms, and pronunciation. Emphasis is on using medical terms accurately in the context of healthcare employment settings. Also introduces common diseases, and concepts in disease prevention and health promotion. Students will develop resourcefulness through the use of various tools, including a cyclopedic medical dictionary.  
 Prerequisite: None



**MEDA 102**                      **F,W,Sp**                      **3.00 credits**  
**Medical Vocabulary II**                      **REEL**

Continues the focus of MEDA 101 by developing a medical vocabulary (using word documents, abbreviations, and stand-alone terms), and knowledge relating to common diseases for body systems not covered in MEDA 101.

Prerequisites: MEDA 101 or BTEC 181

**MEDA 120**                      **F,W**                      **5.00 credits**  
**Survey of Human Anatomy & Physiology**                      **ELEC**

Introduces students to such fundamental biological principles as the cell and metabolism, then progresses through tissues to human organ systems including respiratory, circulatory, digestive, reproductive, immune, nervous, musculoskeletal, urinary and sensory organs.

Prerequisite: ENGL 099 or placement into ENGL 101.

**MEDA 122**                      **F,W**                      **3.00 credits**  
**Law & Ethics for the Medical Office**                      **REEL**

Presents the legal, ethical, and bioethical issues relevant to medical office settings. Course features legal cases and legislation. Topics include patient confidentiality, advance directives, consents, professional liability, medical malpractice, release of information, bioethical case studies, the American Association of Medical Assistants' professional code of ethics, and specific Washington State legislation relating to Medical Assistants.

Prerequisites: ENGL& 101 or BUS 119. Note: This must be completed before winter quarter of the medical assisting cohort year.

**MEDA 145**                      **Sp**                      **6.00 credits**  
**Medical Laboratory Techniques**                      **REEL**

Enables student to develop knowledge and skills necessary to work in a physician's office laboratory. Focuses on quality control; record keeping; specimen collection - including phlebotomy - processing and disposal; urinalysis; hematology; blood chemistry; immunology and microbiology. This course is part of the educational requirement for the Medical Assistant-Certified, according to Engrossed Substitute Senate Bill 6237 (ESSB 6237), and teaches to the scope of practice according to this law. Students enrolled in this course must show documentation for the hepatitis B vaccine series.

Prerequisites: MEDA 122, MEDA 101 (or BTEC 181); and AH 100 (or equivalent) for proof of seven-hours of education meeting RCW 70.24.270 rules for AIDS education and training for health professionals. Concurrent requirements: Current enrollment in the Medical Assisting Cohort, or Medical Assisting program director permission.

**MEDA 161**                      **F**                      **4.00 credits**  
**Examining Room Procedures I**                      **REEL**

Provides a foundation of knowledge and basic skills for assisting a health care practitioner in a clinical setting. Requires students to perform vital signs, infection control, patient care, and sterile techniques. Explains and discusses OSHA standards for handling

biohazardous materials along with first aid and medical emergencies.

Prerequisites: Current enrollment in the Medical Assisting Program. ENGL& 101 or BUS 119 with a C or higher. Concurrent requirements: MEDA 120 (or BIOL& 241 and 242), if not already completed with a C or higher

**MEDA 162**                      **W**                      **4.00 credits**  
**Examining Room Procedures II**                      **REEL**

Builds on competencies developed in MEDA 161, necessary for assisting a health care provider in a clinical setting. Focuses on electrocardiography; specialty procedures, safety in radiography; nutrition in health and disease, and advanced patient screening techniques.

Prerequisites: MEDA 122, MEDA 161; and current enrollment in the Medical Assisting Program or Program Director permission.

**MEDA 165**                      **Sp**                      **5.00 credits**  
**Medications in Medical Assisting & Diseases**                      **REEL**

Explores knowledge of common diseases and pathology, including diagnostic and treatment modalities. Students will become proficient in using drug reference materials. This course is part of the educational requirement for the Medical Assistant-Certified, according to Engrossed Substitute Senate Bill 6237 (ESSB 6237), and teaches to the scope of practice according to this law. Lecture and laboratory content include administration and documentation of oral, subcutaneous, intramuscular, intradermal, and ophthalmic medications.

Prerequisites: MATH 105, MEDA 122, MEDA 101 (or BTEC 181); and AH 100 (or equivalent) for proof of seven-hours of education meeting RCW 70.24.270 rules for AIDS education and training for health professionals. Concurrent requirements: Current enrollment in the Medical Assisting Cohort, or Medical Assisting program director permission.

**MEDA 190**                      **S**                      **6.00 credits**  
**Medical Assisting to Preceptorship**                      **REEL**

Provides student the opportunity to apply learned skills and knowledge to a practical experience. Students are assigned to clinics and doctors' offices where they rotate to different tasks, building from the simpler to the more complex, under the supervision of a facility-appointed preceptor.

Prerequisite: MEDA 145 and MEDA 165 with a grade of C or above Concurrent requirements: Enrollment in MEDA 195

**MEDA 195 S 1.00 credit  
Medical Assisting Seminar REEL**

Brings together students currently in preceptorships to discuss issues as they arise in the work place. Provides an opportunity to introduce advanced topics in medical assisting or healthcare, as well as job seeking. Topics will include: disaster preparedness, resume writing, and interviewing techniques.

Prerequisites: All previous MEDA courses and program requirements. Concurrent requirements: Enrollment in MEDA 190 or Medical Assisting Program director permission.

**MEDA 205 S 2.00 credits  
Certification Review for Medical Assisting REEL**

Provides information to prepare for the Certified Medical Assistant (CMA) exam offered by the American Association of Medical Assistants (AAMA). Includes a review of anatomy, medical terminology, psychology, ethics, and pharmacology, as well as additional topics in clinical and administrative medical assisting.

Prerequisites: None

**MEDA 288 S,F,W,Sp 1.00-15.00 credits  
Cooperative Work Experience**

Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.

Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**MEDA 298 F,W 1.00 credit  
Special Topics in Medical Assisting REEL**

Augments previous academic learning in medical law & ethics. Topics include Washington law for medical assistants and medical board specialties.

Prerequisites: BTEC 164 or similar

**MEDA 299 1.00-10.00 credits  
Independent Study**

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisites: By instructor permission only.

## Music (MUSC)

**MUSC& 105 S,F,W,Sp 5.00 credits  
Music Appreciation HUM**

Examines the development of Western European music throughout history, beginning with the Fall of the Roman Empire through present day. Students will become acquainted with the musical characteristics/ styles, composers and music linked to each of the historical time periods, and explore the evolution of music through such elements. This course is designed for general college students and/or music majors and

fulfills the requirements of the AA-DTA Humanities distribution list.

Prerequisites: None.

**MUSC& 141 F 5.00 credits  
Music Theory I ELEC, HUM**

Introduces the discipline of music theory. Focuses on the fundamentals of musical notation such as pitches, clefs, accidentals, rhythmic values, key signatures, time signatures, and dynamic markings. Introduces intervals, transposition, triads and their inversions, Roman numeral analysis, macro analysis, figured bass notation, cadences, and elements of melodic organization.

Prerequisites: The ability to read music and/or play an instrument Concurrent requirements: Concurrent enrollment in Ear Training I (MUSC 111) is required.

**MUSC& 142 F 5.00 credits  
Music Theory II HUM**

Continues studies in the discipline of music theory. Focuses on musical texture and textural reduction, species counterpoint, voice leading in the 4-part chorale, harmonic progressions, harmonic rhythm, and the dominant 7th chord.

Prerequisites: MUSC& 141 Concurrent requirements: Concurrent enrollment in Ear Training II (MUSC 112) is required.

**MUSC& 143 Sp 5.00 credits  
Music Theory III HUM, ELEC**

Further studies in the discipline of music theory. Focuses on leading-tone 7th chords, non-dominant 7th chords, secondary dominant and secondary leading-tone chords, modulation, basic two-part (binary) form, and basic three part (ternary) form.

Prerequisites: MUSC& 142 Concurrent requirements: Concurrent enrollment in Ear Training III (MUSC 113) is required.

**MUSC& 241 F 5.00 credits  
Music Theory IV HUM**

In continuation of a six-quarter music theory sequence, this course expands upon concepts covered in prior quarters. Students will strengthen their knowledge of secondary dominants, leading-tone chords, modulation, and binary and ternary forms. Students will be introduced to increasingly chromatic pre-dominant chords, including modal mixture chords, neapolitan, and augmented 6th chords.

Prerequisites: Passing grade in MUSC& 143 (was MUSC 103), or instructor permission



**MUSC 117**                      **Sp**                      **5.00 credits**  
**Music Cultures of the World: DIV**                      **DIV, HUM**  
 Examines the vast array of musical styles from around the world. This course focuses on representative music of the non-Western world, and touches on the influence of World music in America, with an emphasis on the cultural background of each genre.  
 Prerequisite: None

**MUSC 119**                      **S,F**                      **5.00 credits**  
**American Music: DIV**                      **DIV, HUM**  
 Examines the development of American popular music from its European and early American influences, to the present with an emphasis on the cultural context of specific genres. This course focuses on the most influential performers, recording artists, producers and labels in the United States.  
 Prerequisite: None

**MUSC 121**                      **F,W,Sp**                      **2.00 credits**  
**Concert Choir I**                      **ELEC, HUM, PERF**  
 Introduces students to the fundamental techniques and principles of integrating voice and music in an ensemble setting. Students will perform music in a variety of languages, from various genres, eras and styles, ranging from Masterworks to Musical Theatre. Ensemble will perform a minimum of 1 concert per quarter, and all performances are mandatory.  
 Prerequisites: Instructor permission.

**MUSC 122**                      **F,W,Sp**                      **2.00 credits**  
**Concert Choir II**                      **ELEC, HUM, PERF**  
 Identifies fundamental techniques and principles of integrating voice and music in an ensemble setting. Students will perform music in a variety of languages, from various genres, eras and styles, ranging from Masterworks to Musical Theatre. Ensemble will perform a minimum of 1 concert per quarter, and all performances are mandatory.  
 Prerequisites: MUSC 121 (was MUSC 141) or instructor permission.

**MUSC 123**                      **F,W,Sp**                      **2.00 credits**  
**Concert Choir III**                      **ELEC, HUM, PERF**  
 Explores fundamental techniques and principles of integrating voice and music in an ensemble setting. Students will perform music in a variety of languages, from various genres, eras and styles, ranging from Masterworks to Musical Theatre. Ensemble will perform a minimum of 1 concert per quarter, and all performances are mandatory. Prerequisites: MUSC 122 (was MUSC 142) or instructor permission.

**MUSC 130**                      **F,W,Sp**                      **2.00 credits**  
**Jazz Ensemble**                      **HUM, PERF**  
 Preparation and performance of literature from the jazz idiom appropriate from small to large jazz ensemble for required on and off campus concerts. Jazz literature from the swing era to the present will include bebop, rock, funk, fusion and blues. Prior knowledge of jazz improvisation not required. Open to trumpet, trombone, all saxophone, drum, bass, and guitar players with strong musical skills and good music reading abilities. This course may be repeated for credit up to seven quarters.  
 Prerequisite: Audition or approval by instructor.

**MUSC 131**                      **S,F,W,Sp**                      **2.00 credits**  
**Beginning Guitar**                      **ELEC, HUM, PERF**  
 Presents musical rudiments which include melody, rhythm, notes, scales, intervals, chords and simple exercises in improvisation for those who want basic guitar skills. Students will perform with the class and in a duo with a class member.  
 Prerequisite: Instructor permission.

**MUSC 132**                      **F,W,Sp**                      **2.00 credits**  
**Intermediate Guitar**                      **ELEC, HUM, PERF**  
 Builds on the musical rudiments learned in Beginning Guitar which include melody, rhythm, notes, scales, intervals, chords and exercises in improvisation for those who want to move beyond their basic guitar skills. Students will perform with the class and in a duo with a class member.  
 Prerequisite: MUSC 131 or instructor permission.

**MUSC 133**                      **F,W,Sp**                      **2.00 credits**  
**Advanced Guitar**                      **ELEC, HUM, PERF**  
 Builds on the skills learned in Intermediate Guitar which include more advanced melody, rhythm, notes, scales, intervals, chords and exercises in improvisation for those who want to develop guitar skills beyond an intermediate level. Students will perform with the class and in a duo with a class member.  
 Prerequisite: MUSC 132 or instructor permission.

**MUSC 134**                      **F,W,Sp**                      **1.00 credit**  
**String Chamber Music**                      **ELEC, HUM, PERF**  
 Rehearsal and performance of string chamber music. Participants receive weekly instruction in small ensemble performance, musicianship, and string instrument technique. Activities of this ensemble may include performance for concerts, events on campus, and events in the community. Course may be repeated up to six times.  
 Prerequisite: Instructor permission

**MUSC 135**                      **1.00 credit**  
**Orchestra**                      **HUM, PERF**  
 Offers participation in the Southwest Washington Symphony, a student/community orchestra, which rehearses and performs standard symphonic literature. Admission is by audition. The course may be repeated for credit up to seven quarters.  
 Prerequisite: Instructor permission

**MUSC 145** F,W,Sp **2.00 credits**  
**Beginning Voice** **ELEC, HUM**

Introduces the art of singing, with focus on the development of healthy, efficient vocal production (breath support, vowel alignment, range extension, tone color), diction, song interpretation and performance etiquette. Students will become familiar with the structure and mechanics of the voice through study, discussion, practice and solo performances. Provides students with the skills needed to prepare and perform vocal literature.

Prerequisite: None

**MUSC 150** F,W,Sp **2.00 credits**  
**Symphonic Band** **ELEC, HUM, PERF**

Rehearsal and performance of symphonic band literature. Participants receive weekly instruction in musicianship and large ensemble performance. Activities of this course may include performance in concerts, commencement, other campus events, and events in the community. Course may be repeated up to seven times for credit.

Prerequisites: Instructor permission Concurrent requirements: MUSC 176/276 Individual Instruction

**MUSC 151** F,W,Sp **2.00 credits**  
**Bella Voce Choir I** **ELEC, HUM, PERF**

Introduces the fundamental techniques and principles of integrating voice, music and showmanship in small performance choir. Students will memorize and perform music from a variety of styles ranging from Broadway & Contemporary to Jazz & Classical music with an emphasis on a capella repertoire. The course will occasionally employ some choreography, blocking, and/or staging. Ensembles perform a minimum of 1 concert per quarter, as well as various community outreach performances. All performances are mandatory.

Prerequisites: Instructor permission.

**MUSC 152** F,W,Sp **2.00 credits**  
**Bella Voce Choir II** **ELEC, HUM, PERF**

Identifies fundamental techniques and principles of integrating voice, music and showmanship in small performance choir. Students will memorize and perform music from a variety of styles ranging from Broadway & Contemporary to Jazz & Classical music with an emphasis on a capella repertoire. The course will occasionally employ some choreography, blocking, and/or staging. Ensembles perform a minimum of 1 concert per quarter, as well as various community outreach performances. All performances are mandatory.

Prerequisites: MUSC 151 and instructor permission.

**MUSC 153** F,W,Sp **2.00 credits**  
**Bella Voce Choir III** **ELEC, HUM, PERF**

Explores fundamental techniques and principles of integrating voice, music and showmanship in small performance choir. Students will memorize and perform music from a variety of styles ranging from Broadway & Contemporary to Jazz & Classical music with an emphasis on a capella repertoire. The course will occasionally employ some choreography, blocking, and/or staging. Ensembles perform a minimum of 1 concert

per quarter, as well as various community outreach performances. All performances are mandatory.

Prerequisites: MUSC 152 and instructor permission.

**MUSC 176** F,W,Sp **1.00 credit**  
**Individual Instruction I** **ELEC, HUM, PERF**

Provides instrumental / vocal / composition instruction to acquire and refine musical techniques using skill level appropriate repertoire and materials.

Prerequisite: Instructor permission

**MUSC 177** F,W,Sp **1.00 credit**  
**Individual Instruction II** **ELEC, HUM, PERF**

Provides instrumental / vocal / composition instruction to acquire and refine musical techniques using skill level appropriate repertoire and materials.

Prerequisite: MUSC 176

**MUSC 178** F,W,Sp **1.00 credit**  
**Individual Instruction III** **ELEC, HUM, PERF**

Provides instrumental / vocal / composition instruction to acquire and refine musical techniques using developmentally appropriate repertoire and materials.

Prerequisite: MUSC 177

**MUSC 206** F,W,Sp **1.00 credit**  
**Keyboard Skills IV** **ELEC, HUM**

Introduces intermediate piano skills in a lab setting comprising group instruction, one-on-one instruction, individual practice, and performance. 'Keyboard skills' courses are intended for music majors, while 'Group Piano Instruction' is intended for non-majors.

Prerequisite: MUSC 108 with a grade of C or higher or instructor permission.

**MUSC 207** F,W,Sp **1.00 credit**  
**Keyboard Skills V** **ELEC, HUM**

Reinforces intermediate piano skills in a lab setting comprising group instruction, one-on-one instruction, individual practice, and performance. 'Keyboard skills' courses are intended for music majors, while 'Group Piano Instruction' is intended for non-majors.

Prerequisite: MUSC 206 with a grade of C or higher or instructor permission.

**MUSC 208** F,W,Sp **1.00 credit**  
**Keyboard Skills VI** **ELEC, HUM**

Further reinforces intermediate piano skills in a lab setting comprising group instruction, one-on-one instruction, individual practice, and performance. 'Keyboard skills' courses are intended for music majors, while 'Group Piano Instruction' is intended for non-majors.

Prerequisite: MUSC 207 with a grade of C or higher or instructor permission.

**MUSC 209** Sp **5.00 credits**  
**The Blues Culture: DIV** **DIV, HUM**

Examines the uniquely African-American musical development of the Blues from its roots in work-songs to its influence on Rock and Roll, Jazz and popular music as a whole. This course focuses on the chronology and cultural context of the Blues.

Prerequisite: None

**MUSC 221** F,W,Sp **2.00 credits**  
**Concert Choir IV** ELEC, HUM, PERF  
 Demonstrates fundamental techniques and principles of integrating voice and music in an ensemble setting. Students will perform music in a variety of languages, from various genres, eras and styles, ranging from Masterworks to Musical Theatre. Ensemble will perform a minimum of 1 concert per quarter, and all performances are mandatory.  
 Prerequisites: MUSC 123 (was MUSC 143) or instructor permission.

**MUSC 222** F,W,Sp **2.00 credits**  
**Concert Choir V** ELEC, PERF, HUM  
 Examines fundamental techniques and principles of integrating voice and music in an ensemble setting. Students will perform music in a variety of languages, from various genres, eras and styles, ranging from Masterworks to Musical Theatre. Ensemble will perform a minimum of 1 concert per quarter, and all performances are mandatory.  
 Prerequisites: MUSC 221 (was MUSC 241) or instructor permission.

**MUSC 223** F,W,Sp **2.00 credits**  
**Concert Choir VI** ELEC, PERF, HUM  
 Refines fundamental techniques and principles of integrating voice and music in an ensemble setting. Students will perform music in a variety of languages, from various genres, eras and styles, ranging from Masterworks to Musical Theatre. Ensemble will perform a minimum of 1 concert per quarter, and all performances are mandatory.  
 Prerequisites: MUSC 222 (was MUSC 242) or instructor permission.

**MUSC 251** F,W,Sp **2.00 credits**  
**Bella Voce Choir IV** PERF, ELEC, HUM  
 Introduces the fundamental techniques and principles of integrating voice, music and showmanship in small performance choir. Students will memorize and perform music from a variety of styles ranging from Broadway & Contemporary to Jazz & Classical music with an emphasis on a capella repertoire. The course will occasionally employ some choreography, blocking, and/or staging. Ensembles perform a minimum of 1 concert per quarter, as well as various community outreach performances. All performances are mandatory.  
 Prerequisites: MUSC 153 and instructor permission.

**MUSC 252** F,W,Sp **2.00 credits**  
**Bella Voce Choir V** PERF, ELEC, HUM  
 Introduces the fundamental techniques and principles of integrating voice, music and showmanship in small performance choir. Students will memorize and perform music from a variety of styles ranging from Broadway & Contemporary to Jazz & Classical music with an emphasis on a capella repertoire. The course will occasionally employ some choreography, blocking, and/or staging. Ensembles perform a minimum of 1 concert per quarter, as well as various community outreach performances. All performances are mandatory.  
 Prerequisites: MUSC 251 and instructor permission.

**MUSC 253** F,W,Sp **2.00 credits**  
**Bella Voce Choir VI** PERF, ELEC, HUM  
 Refines fundamental techniques and principles of integrating voice, music and showmanship in small performance choir. Students will memorize and perform music from a variety of styles ranging from Broadway & Contemporary to Jazz & Classical music with an emphasis on a capella repertoire. The course will occasionally employ some choreography, blocking, and/or staging. Ensembles perform a minimum of 1 concert per quarter, as well as various community outreach performances. All performances are mandatory.  
 Prerequisites: MUSC 252 and instructor permission.

**MUSC 276** F,W,Sp **1.00 credit**  
**Individual Instruction IV** ELEC, HUM, PERF  
 Provides instrumental / vocal / composition instruction to acquire and refine musical techniques using developmentally appropriate repertoire and materials.  
 Prerequisite: MUSC 178

**MUSC 277** F,W,Sp **1.00 credit**  
**Individual Instruction V** ELEC, HUM, PERF  
 Provides instrumental / vocal / composition instruction to acquire and refine musical techniques using developmentally appropriate repertoire and materials.  
 Prerequisite: MUSC 276

**MUSC 278** F,W,Sp **1.00 credit**  
**Individual Instruction VI** ELEC, HUM, PERF  
 Provides instrumental / vocal / composition instruction to acquire and refine musical techniques using developmentally appropriate repertoire and materials.  
 Prerequisite: MUSC 277

**MUSC 288** F,W,Sp **1.00-15.00 credits**  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**MUSC 299** **1.00-10.00 credits**  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisites: By instructor permission only.

# Nursing (NURS)

**NURS 150**                      **F,W,Sp**                      **2.00 credits**  
**Pharmacology for Nursing I**                      **REEL**

Introduces basic principles of pharmacology and therapeutic modalities. Provides an overview of drug classifications and prototypes.

Prerequisite: Admission to the nursing program  
 Concurrent requirement: NURS 151 or nursing program director approval

**NURS 151**                      **F,W,Sp**                      **3.00 credits**  
**Nursing Concepts in Health and Illness I**                      **REEL**

Presents concepts that form the foundation of nursing practice and the roles of provider of care, manager of care, and member of the profession. Topics include: the nursing process, concepts of health and wellness, oxygenation, fluid and electrolyte balance, elimination, the integumentary system, comfort measures, and palliative care.

Prerequisites: NURS 090 or equivalent and certification as a nursing assistant in WA or OR and admission to the nursing program. NURS 090 must be completed with a 'C' or above. Concurrent requirements: NURS 161

**NURS 152**                      **F,W,Sp**                      **5.00 credits**  
**Nursing Concepts in Health and Illness II**                      **REEL**

Builds upon foundational nursing knowledge and concepts. Focuses on health promotion and comprehensive care of clients with chronic illness. Promotes decision making and critical thinking in the nursing roles of provider of care, manager of care and member of the profession. Topics include cancer, the endocrine, respiratory, cardiovascular, musculoskeletal and gastrointestinal systems.

Prerequisites: NURS 150 and NURS 151 with a 'C' or higher  
 Concurrent requirement: NURS 162

**NURS 153**                      **F,W,Sp**                      **5.00 credits**  
**Nursing Concepts in Health and Illness III**                      **REEL**

Presents additional nursing knowledge and concepts focusing on comprehensive care of adults with chronic illness. Expands upon decision making and critical thinking. Further develops the nursing roles of provider of care, manager of care and member of the profession. Topics include perioperative care, and the genitourinary, reproductive, hematologic, neurologic, and sensory systems.

Prerequisites: NURS 152 with a grade of 'C' or higher  
 Concurrent requirements: NURS 163

**NURS 160**                      **F,W,Sp**                      **2.00 credits**  
**Skills In Nursing**                      **REEL**

Introduces skills and the associated concepts for the provision of safe, effective nursing care. Topics include vital signs, physical assessment, sterile technique, wound care, blood glucose monitoring, medication administration, dosage calculation, injections, nasogastric tubes, urinary catheters, and care of tracheostomies.

Prerequisites: Admission to the nursing program  
 Concurrent requirements: NURS 161

**NURS 161**                      **F,W,Sp**                      **3.00 credits**  
**Nursing Practicum I**                      **REEL**

Provides opportunities to perform beginning nursing care in the roles of provider of care, manager of care and member of the profession. Focuses on care of the client in skilled care and community settings.

Prerequisites: Admission to the nursing program.  
 Concurrent requirements: NURS 151

**NURS 162**                      **F,W,Sp**                      **5.00 credits**  
**Nursing Practicum II**                      **REEL**

Provides additional opportunities to perform nursing care in the roles of provider of care, manager of care and member of the profession. Focuses on care of the client in skilled care facilities and additional community settings.

Prerequisites: NURS 161 and NURS 160 with a grade of 'Pass'.  
 Concurrent requirements: NURS 152

**NURS 163**                      **F,W,Sp**                      **5.00 credits**  
**Nursing Practicum III**                      **REEL**

Continues to build upon previous experiences. Provides opportunities to perform nursing care in the roles of provider of care, manager of care and member of the profession, in the acute care and community settings, with increasing skill and independence.

Prerequisites: NURS 162 with a grade of 'Pass'  
 Concurrent requirements: NURS 153

**NURS 209**                      **F,W,Sp**                      **2.00 credits**  
**Nursing Success**                      **REEL**

Strengthens nursing skills and knowledge to promote success in upper level nursing courses. Reviews selected nursing skills, care planning, dosage calculations, legal concepts and professional issues. Familiarizes the student with LCC Nursing Program policies and clinical requirements, including the clinical setting.

Prerequisite: Formal acceptance into the campus-based 2nd year of LCC nursing program. Instructor permission required for enrollment.

**NURS 241** **F** **2.00 credits**  
**Essential Concepts of Nursing Practice** **REEL**  
 Provides content essential to effective and safe registered nursing practice. Concepts of leadership and management are included. Nursing delivery systems, standards of care, quality management, and evidence-based practice are described. The course includes an in-depth review and application of the nursing process. Topics include community-based nursing, culture and ethnicity, nutrition, pharmacology, pain, safety, and infection control.  
 Prerequisites: Admission to the Nursing Program

**NURS 242** **F** **3.00 credits**  
**Nursing Throughout the Lifespan** **REEL**  
 Builds on previous nursing knowledge to present concepts essential to the provision and management of nursing care of patients throughout the lifespan. Topics include cultural influences on health, assessment, patient teaching, growth and development, care of the family. Reviews the nursing care of the pregnant and postpartum patient. Discusses strategies to achieve optimal health for patients of all ages.  
 Prerequisites: NURS 241 with a grade of C or above or concurrent enrollment.

**NURS 243** **3.00 credits**  
**Behavioral Health** **REEL**  
 Provides knowledge essential to provide and manage nursing care of patients with behavioral health issues. Promotes understanding of mental health and mental illness. Presents strategies in nursing care to support the emotional, mental, and social well-being of the patient and their families.  
 Prerequisites: NURS 242

**NURS 244** **W** **4.00 credits**  
**Comprehensive Medical Surgical Nursing I** **REEL**  
 Using a body systems approach, explores the etiology, pathophysiology, diagnostic and laboratory studies, health promotion, health assessment, pharmacologic interventions, and nursing management essential to safe and effective nursing care of patients with various health challenges. Topics include nursing management of patients with disorders of the respiratory, cardiovascular, vascular/lymphatic, neurological, urinary/renal, hepatobiliary/pancreatic, and gastrointestinal systems, as well as acid-base/fluid-electrolyte balance.  
 Prerequisites: NURS 243 with a grade of C or higher or concurrent enrollment.

**NURS 245** **Sp** **4.00 credits**  
**Comprehensive Medical Surgical Nursing II** **REEL**  
 Using a body systems approach, continues to explore the etiology, pathophysiology, diagnostic and laboratory studies, health promotion, health assessment, pharmacologic interventions, and nursing management essential to safe and effective nursing care of patients with various health challenges. Topics include nursing management of patients with disorders of the musculoskeletal, dermatologic, immune, metabolic/endocrine, hematologic, reproductive, visual/auditory systems, and cancer.  
 Prerequisite: NURS 244 with a grade of C or higher.

**NURS 246** **Sp** **2.00 credits**  
**Skills Lab** **REEL**  
 Provides opportunities to develop and enhance proficiency in nursing skills essential to safe and effective nursing practice as provider of care, manager of care, and member of the discipline of nursing, at the beginning registered nurse level.  
 Prerequisite: NURS 242 Concurrent requirements: NURS 243 or NURS 245

**NURS 247** **5.00-10.00 credits**  
**Clinical Practicum** **REEL**  
 Provides advanced opportunities to apply knowledge and concepts learned in previous courses. Expands critical thinking and increases skill in the performance of nursing care as provider of care, manager of care, and member of the discipline of nursing at the beginning registered nurse level. Expands knowledge of nurse delegation. Community and acute care settings are utilized.  
 Prerequisite: NURS 246

**NURS 248** **S** **5.00 credits**  
**Advanced Clinical Practicum** **REEL**  
 Prepares students for autonomous nursing practice by providing opportunities to perform nursing care under the guidance of a registered nurse preceptor, integrating previous knowledge, skills, and experience. Reinforces critical thinking, decision making, and performance of nursing skills in the beginning registered nurse roles of provider of care, manager of care and member of the profession.  
 Prerequisites: NURS 247 or concurrent enrollment

**NURS 250** **F,W,Sp** **1.00 credit**  
**Pharmacology for Nursing II** **REEL**  
 Builds upon principles of pharmacology, therapeutic modalities, and dosage calculation with a focus on selected client populations.  
 Prerequisites: NURS 150 and NURS 153 with a 'C' or higher. Concurrent requirements: NURS 251



**NURS 251** F,W,Sp 4.00 credits  
**Nursing Concepts In Health And Illness IV REEL**  
 Explores nursing knowledge and concepts focusing on comprehensive nursing care of clients in the roles of provider of care, manager of care and member of the profession. Further expands upon decision making and critical thinking. Topics include maternal-child nursing, growth and development, and health promotion. The cardiac system and the associated nursing care of selected clients is also discussed.  
 Prerequisites: NURS 153 with a 'C' or higher or Program Director permission Concurrent requirements: NURS 261

**NURS 252** F,W,Sp 5.00 credits  
**Nursing Concepts in Health and Illness V REEL**  
 Further develops nursing knowledge and concepts focusing on comprehensive care of clients with acute and complex health issues in preparation for the nursing roles of provider of care, manager of care and member of the profession. Topics include care of the client with respiratory, genitourinary, hematological and gastrointestinal health disorders.  
 Prerequisites: NURS 251 with a grade of 'C' or higher  
 Concurrent requirements: NURS 262

**NURS 253** F,W,Sp 5.00 credits  
**Nursing Concepts in Health and Illness VI REEL**  
 Expands on knowledge gained in previous courses. Focuses on providing comprehensive nursing care for clients with complex health care needs. Topics include endocrine disorders, burns, trauma, shock, neurological disorders and disaster preparedness.  
 Prerequisites: NURS 252 with a 'C' or higher.  
 Concurrent requirements: NURS 263

**NURS 261** F,W,Sp 5.00 credits  
**Nursing Practicum IV REEL**  
 Expands the opportunities to perform nursing in the roles of provider of care, manager of care and member of the profession. Introducing care of maternal-child clients. Builds on previous knowledge and skills to provide further experience in acute care of the adult with increasingly complex health concerns.  
 Prerequisites: NURS 163 with a 'C' or higher or Program Director permission Concurrent requirements: NURS 251

**NURS 262** F,W,Sp 5.00 credits  
**Nursing Practicum V REEL**  
 Builds upon previous knowledge, skills, and experiences and provides additional opportunities to perform nursing in the roles of provider of care, manager of care and member of the profession. Provides experience with clients experiencing increasingly complex alterations in health. Includes acute care and community settings.  
 Prerequisites: NURS 261 with a grade of 'Pass'  
 Concurrent requirements: NURS 252

**NURS 263** F,W,Sp 5.00 credits  
**Nursing Practicum VI REEL**  
 Prepares students for autonomous nursing practice by providing opportunities to perform nursing care under the guidance of a registered nurse preceptor, integrating previous knowledge, skills, and experience. Reinforces critical thinking, decision making, and performance of nursing skills in the beginning registered nurse roles of provider of care, manager of care and member of the profession.  
 Prerequisite: NURS 262 with a grade of 'pass'  
 Concurrent requirement: NURS 253

**NURS 288** 1.00-15.00 credits  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission  
 Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**NURS 299** 1.00-10.00 credits  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisites: By instructor permission only.

**NURS 90** S,F,W,Sp 8.00 credits  
**Nursing Assistant**  
 Provides the content and experiences for students to achieve mastery of the state-defined competencies required to assist in giving basic nursing care to residents/clients under the supervision of a licensed nurse.  
 Prerequisite: None.

## Nutrition (NUTR)

**NUTR& 101** S,F,W,Sp 5.00 credits  
**Nutrition NSCI**  
 Develops an understanding of the importance of the science of nutrition and dietary recommendations to maintenance of a healthy life. Students will learn the principles of nutrition as they apply to macronutrients and metabolic pathways. Application of vitamins, minerals, and special nutritional requirements at different stages of the life cycle, as well as current issues in nutrition will be considered. This course does not include a lab.  
 Prerequisite: None

**NUTR 298** **1.00-2.00 credits**  
**Special Topics in Nutrition NSCI**  
 Discusses selected advanced topics in nutrition. Students will have a variety of nutrition related areas to research and/or explore.  
 Prerequisite: By instructor permission only.

**NUTR 299** **1.00-5.00 credits**  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisite: By Instructor Permission only.

## Oceanography (OCEA)

**OCEA& 101** **S,F,W,Sp** **5.00 credits**  
**Intro to Oceanography NSL**  
 Emphasizes principles and processes governing the ocean and its interactions with the surrounding physical environment. Covers topics from physical, chemical, biological and geological oceanography, including origin and evolution of the ocean basins, seafloor sediments, seawater, currents, waves, tides, marine life, and human impacts. Laboratory involves use of globes, charts, and graphs, sediment and biological samples. A field trip may be required.  
 Prerequisite: None.

## Philosophy (PHIL)

**PHIL& 101** **F,W,Sp** **5.00 credits**  
**Intro to Philosophy HUM**  
 Analyzes essential philosophical questions such as the one and/or many, what is truth, what is real being, etc. Pursues various Western attempts at their answers along with students' own personal approaches.  
 Prerequisite: ENGL& 101.

**PHIL 260** **W** **5.00 credits**  
**Philosophy of Religion HUM**  
 Offers a critical, philosophic examination of the nature of religious beliefs, the functions of religious language, the arguments for the existence of God, attributes of God, the possible psychological and sociological origins of religions, the problem of evil, and the immortality of the soul, and some comparisons and contrasts between Eastern and Western religions.  
 Prerequisite: ENGL& 101

**PHIL 288** **1.00-15.00 credits**  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**PHIL 299** **1.00-10.00 credits**  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisites: By instructor permission only.

## Physical Education (PHED)

**PHED 104** **F,W,Sp** **1.00 credit**  
**Pilates and Stretch PAC, REEL**  
 Strength and flexibility exercises practiced with Pilates routine to create a balanced and effective program. Emphasis on core strength, posture, balance and toning.  
 Prerequisite: None

**PHED 105** **S,Sp** **1.00 credit**  
**Pilates & Yoga - Beginning PAC, REEL**  
 Pilates and yoga routines will be practiced together to create a balanced and effective strength and flexibility workout. The exercises will emphasize core strength, back strength, posture, balance, and toning major muscle groups.  
 Prerequisite: None.

**PHED 106** **F,W,Sp** **1.00 credit**  
**Yoga For Beginners PAC, REEL**  
 Introduces yoga routines and poses for a balanced and effective strength and flexibility workout. Emphasizes core strength, back strength, posture, balance, and toning of major muscle groups. Encourages students to link the body and the mind through the poses, routines and meditation time. Students should bring their own yoga mat to class.  
 Prerequisites: None

**PHED 109** **Sp** **2.00 credits**  
**Baseball Coaching Theory ELEC**  
 Develops a basic understanding of coaching the sport of baseball. Includes concepts of coaching leadership, sport psychology, sport specific coaching theory, and developing proper sport-specific technique. Covers the use of technology and modern equipment to coach players in their individual development. Required for first year baseball student athletes.  
 Prerequisite: Instructor permission

**PHED 110** **2.00 credits**  
**Circuit Training** **PAC, REEL**  
 Develops the basic components of physical fitness for students through participation in an aerobic circuit weight training program. The super-circuit aerobics program utilizes a combination of endurance and strength machines to provide one of the most effective conditioning methods known for developing baseline levels of physical fitness.  
 Prerequisite: None

**PHED 114** **W** **2.00 credits**  
**Applied Baseball I** **PAC**  
 Provides baseball student athletes an opportunity to demonstrate baseball skills, strategies, and rules of play and participate in a sport specific-strength and conditioning program. Required for all first year baseball student athletes.  
 Prerequisite: Instructor permission.

**PHED 117** **F** **2.00 credits**  
**Applied Soccer I** **PAC**  
 Provides soccer student athletes an opportunity to demonstrate their soccer skills, strategies, rules of play, and to participate in a sport specific-strength and conditioning program. Required for all first year soccer student athletes.  
 Prerequisite: Instructor permission

**PHED 118** **F** **2.00 credits**  
**Applied Softball I** **PAC**  
 Provides softball student-athletes an opportunity to demonstrate softball skills, strategies, and rules of play and participate in a sport specific-strength and conditioning program. Required for all first year softball student-athletes.  
 Prerequisite: Instructor permission

**PHED 119** **W** **2.00 credits**  
**Men's Basketball Coaching Theory** **ELEC**  
 Develops a basic understanding of coaching the sport of men's basketball. Includes concepts of coaching leadership, sport psychology, sport specific coaching theory, and developing proper sport-specific technique. Covers the use of technology and modern equipment to coach players in their individual development. Required for first year men's basketball student athletes.  
 Prerequisite: Instructor permission

**PHED 120** **S,F,W,Sp** **2.00 credits**  
**Cross-Training** **ELEC, PAC**  
 Introduces the fundamental theories of cross-training for various types of activities. Implements individualized work-out routines needed to better lifetime fitness whether it is strength training, power lifting, conditioning or endurance. Students will increase strength, fitness and conditioning by taking this class. Students will define and design a work-out program that will help them attain their fitness goals.  
 Prerequisite: None

**PHED 121** **1.00 credit**  
**Beginning Foil Fencing**  
 Presents the skills, strategies, rules, and physical conditioning for the competitive or leisure pursuit of fencing.  
 Prerequisite: None

**PHED 122** **1.00 credit**  
**Intermediate Foil Fencing**  
 Advancement of the skills, strategies, rules, and physical conditioning beyond the basics for competitive or leisure pursuit.  
 Prerequisite: PHED 121 or instructor permission.

**PHED 125** **1.00 credit**  
**Boot Camp** **ELEC, PAC**  
 Provides a well-rounded, full body work out in every class. Students will work on cardiorespiratory endurance, muscular strength and endurance, body composition and flexibility. Students will keep their heart rates elevated while learning a variety of fitness exercises and using different pieces of fitness equipment such as: kettle bells, stability balls, stretch bands, weighted bars and medicine balls. Class format will include large group, stations, relays and more. Core work outs, Pilates and yoga will also be incorporated into this class.  
 Prerequisite: None

**PHED 126** **1.00-2.00 credits**  
**Aerobic Exercise** **PAC, REEL**  
 Guides students through rhythmical and continuous exercise performed to music. Every student, no matter what age or body type, will be provided the opportunity to improve their cardiorespiratory endurance through participation.  
 Prerequisite: None

**PHED 127** **1.00-2.00 credits**  
**Zumba I** **PAC, REEL**  
 Fuses hypnotic Latin rhythms and easy-to-follow moves. The routines feature interval training sessions, where fast and slow rhythms and resistance training are combined to tone and sculpt your body while burning fat.  
 Prerequisite: None

**PHED 128** **S,F,W,Sp** **1.00-2.00 credits**  
**Weight Training** **PAC, REEL**  
 Improves strength, physical conditioning, and performance through correct use of universal equipment, free weights and cardiorespiratory equipment. Emphasis will be on health and fitness education. Each student will design a program specific to his or her goals for the quarter.  
 Prerequisite: None

**PHED 129** **Aqua Zumba I** **1.00-2.00 credits** **ELEC**

Blends the Zumba formula and philosophy with traditional aqua fitness disciplines into a safe, challenging, water-based workout that's body-toning and cardio-conditioning. Lap swim is also available during this time.

Prerequisite: None

**PHED 130** **Swimming** **1.00 credit** **PAC**

Provides instruction of the basic swimming strokes, personal safety skills and conditioning programs for muscular and cardiovascular endurance of the swimmer. Students will attend this class at the Mark Morris pool.

Prerequisite: None

**PHED 135** **Fitness Walking** **1.00-2.00 credits** **PAC**

Utilizes walking in developing the health-related components of physical fitness. Emphasis will be placed on cardiorespiratory endurance through low-impact, moderate intensity exercise.

Prerequisite: None

**PHED 136** **F** **Men's Applied Basketball I** **2.00 credits** **PAC**

Provides men's basketball student athletes an opportunity to demonstrate basketball skills, strategies, and rules of play and to participate in a sport specific-strength and conditioning program. Required for all first year men's basketball student athletes.

Prerequisite: Instructor permission

**PHED 137** **F** **Women's Applied Basketball I** **2.00 credits** **PAC**

Provides basketball student athletes an opportunity to demonstrate basketball skills, strategies, and rules of play and to participate in a sport specific-strength and conditioning program. Required for all first year women's basketball student athletes.

Prerequisite: Instructor permission

**PHED 138** **F** **Applied Volleyball I** **2.00 credits** **PAC**

Provides volleyball student athletes an opportunity to demonstrate volleyball skills, strategies, and rules of play and to participate in a volleyball-conditioning program. Required for all first year volleyball student athletes.

Prerequisite: Instructor permission

**PHED 139** **F,Sp** **Train for a Race** **1.00-2.00 credits** **PAC**

Promotes instruction, coaching and experience in training for a race (5k, 10k, adventure run). Work-outs will include walking, running, cross-training, obstacle training, strength training and team building. All fitness levels are welcome. If students choose to participate in a race during the quarter, signing up for and cost of the event is the responsibility of the student.

Prerequisites: None

**PHED 152** **S,F,W,Sp** **Personalized Fitness** **1.00-2.00 credits** **PAC, REEL**

Requires students to plan and execute an individual exercise program designed specifically to meet personal goals and objectives related to physical fitness. Students may utilize Lower Columbia's exercise facility or may choose to participate in off-campus activities.

Prerequisite: None

**PHED 155** **F,W,Sp** **Rock Climbing - Beginning** **1.00 credit** **PAC, REEL**

Provides instruction in the skills and techniques of rock climbing. Introduces rock climbing equipment; provides practice in basic rock climbing skills and belaying. Upon successful completion of the course, students will receive a belay certification. Class is held in the on-campus, indoor rock climbing facility.

Prerequisites: None

**PHED 159** **W** **Women's Basketball Coaching Theory** **2.00 credits** **ELEC**

Develops a basic understanding of coaching the sport of women's basketball. Includes concepts of coaching leadership, sport psychology, sport specific coaching theory, and developing proper sport-specific technique. Covers use of technology and modern equipment to coach players in their individual development. Required for first year women's basketball student athletes.

Prerequisite: Instructor permission

**PHED 169** **F** **Women's Soccer Coaching Theory** **2.00 credits** **ELEC**

Develops a basic understanding of coaching the sport of soccer. Includes concepts of coaching leadership, sport psychology, sport-specific coaching theory, and developing proper sport-specific technique. Covers the use of technology and modern equipment to coach players in their individual development. Required for soccer student athletes during their first year of classes.

Prerequisite: Instructor permission

**PHED 171** **Sp** **Prevention and Care of Athletic Injuries** **3.00 credits** **ELEC**

Provides training in basic prevention and care of athletic injuries. Includes an introduction to the field of sports medicine, organization and administration of a sports medicine program, recognition of common athletic injuries, evaluation and treatment protocols, rehabilitation techniques and emergency procedures. Basic wrapping, taping, and bracing techniques will be studied and practiced. Basic anatomy, physiology, and infection control will be included.

Prerequisite: None

**PHED 179**                      **W**                      **2.00 credits**  
**Softball Coaching Theory**                      **ELEC**

Develops a basic understanding of coaching the sport of softball. Includes concepts of coaching leadership, sport psychology, sport specific coaching theory, and developing proper sport-specific technique. Covers the use of technology and modern equipment to coach players in their individual development. Required for softball student-athletes during their first year of classes. Prerequisite: Instructor permission

**PHED 189**                      **Sp**                      **2.00 credits**  
**Volleyball Coaching Theory**                      **ELEC**

Develops a basic understanding of coaching the sport of volleyball. Includes concepts of coaching leadership, sport psychology, sport specific coaching theory, and developing proper volleyball technique. Covers the use of technology and modern equipment to coach players in their individual development. Required for first year volleyball student athletes.

Prerequisite: Instructor permission

**PHED 204**                      **F,W,Sp**                      **1.00 credit**  
**Pilates and Stretch**                      **PAC**

Strength and flexibility exercises practiced with Pilates routines to create a balanced and effective program. Emphasis on core strength, posture, balance and toning.

Prerequisites: None.

**PHED 205**                      **F,Sp**                      **1.00 credit**  
**Pilates & Yoga - Intermediate**                      **PAC**

Pilates & Yoga routines will be practiced together to create a balanced and effective strength and flexibility workout. Emphasis will be on core strength, back strength, posture, balance, and toning major muscle groups.

Prerequisite: PHED 105 or instructor permission.

**PHED 210**                      **2.00 credits**  
**Circuit Training**                      **PAC**

Develops the basic components of physical fitness for students through participation in an aerobic circuit weight training program. The advanced super-circuit aerobics program utilizes a combination of endurance and strength machines to provide one of the most effective conditioning methods known for developing more advanced levels of physical fitness.

Prerequisite: None

**PHED 214**                      **F**                      **1.00 credit**  
**Applied Baseball II**                      **PAC**

Provides baseball student athletes an additional opportunity to refine their skills, strategies, and understanding of rules of play. Required for all second year baseball student athletes.

Prerequisite: Instructor permission

**PHED 215**                      **S**                      **1.00-2.00 credits**  
**Outdoor Skills Experience**                      **PAC, ELEC**

Provides local outdoor fitness activities and opportunities to learn the importance of teamwork and outdoor wilderness safety. Typical activities may include hiking, rock climbing, kayaking, biking, orienteering, and team building activities. Actual activities may vary according to the season and equipment availability. Students must be in good physical condition before taking this course. Equipment rental fees vary quarter to quarter, and are the responsibility of the student. Details about costs and specific activities will be provided at the first class session or by contacting the instructor. Two to three off-campus field trips are a required part of this course.

Prerequisites: None

**PHED 216**                      **W**                      **1.00-2.00 credits**  
**Winter Outdoor Experience**                      **PAC, ELEC**

Provides local outdoor fitness activities and opportunities to learn the importance of teamwork and winter outdoor safety. Typical activities may include snowshoeing, cross country skiing, winter safety, downhill skiing and/or snowboarding, and team building activities. Actual activities may vary according to the season and equipment availability. Students must be in good physical condition before taking this course. Equipment rental fees vary by quarter and activity, and are the responsibility of the student. Details about costs and specific activities will be provided at the first class session or by contacting the instructor. Three off-campus field trips are a required part of this course.

Prerequisites: None

**PHED 217**                      **F**                      **1.00 credit**  
**Applied Soccer II**                      **PAC**

Provides soccer student athletes an additional opportunity to refine their soccer skills, strategies, and understanding of rules of play, and to participate in a sport specific-strength and conditioning program. Required for all second year soccer student athletes.

Prerequisite: Instructor permission

**PHED 218**                      **Sp**                      **1.00 credit**  
**Applied Softball II**                      **PAC**

Provides softball student athletes additional opportunities to refine softball skills, strategies, and rules of play and participate in a sport specific-strength and conditioning program. Required for all second year softball student-athletes.

Prerequisite: Instructor permission

- PHED 220** S,F,W,Sp **2.00 credits**  
**Cross-Training** PAC  
 Introduces the fundamental theories of cross-training for various types of activities. Implements individualized work-out routines needed to better your lifetime fitness whether it is strength training, power lifting, conditioning or endurance. Students will increase strength, fitness and conditioning by taking this class. Students will define and design a work-out program that will help them attain their fitness goals.  
 Prerequisite: None
- PHED 226** F **1.00-2.00 credits**  
**Aerobic Exercise** PAC, REEL  
 Guides students through rhythmical and continuous exercise performed to music. Every student, no matter what age or body type, will be provided the opportunity to improve their cardiorespiratory endurance through participation.  
 Prerequisite: None
- PHED 227** S **1.00-2.00 credits**  
**Zumba II** PAC  
 Fuses hypnotic Latin rhythms and easy-to-follow moves. The routines feature interval training sessions, where fast and slow rhythms and resistance training are combined to tone and sculpt your body while burning fat.  
 Prerequisite: None
- PHED 228** S,F,W,Sp **1.00-2.00 credits**  
**Weight Training** PAC  
 Improves strength, physical conditioning, and performance through correct use of universal equipment, free weights and cardiorespiratory equipment. Emphasis will be on health and fitness education. Each student will design a program specific to his or her goals for the quarter.  
 Prerequisite: None
- PHED 229** **1.00-2.00 credits**  
**Aqua Zumba II** ELEC  
 Blends the Zumba formula and philosophy with traditional aqua fitness disciplines into a safe, challenging, water-based workout that's body-toning and cardio-conditioning. Lap swim is also available during this time.  
 Prerequisite: None
- PHED 230** **1.00 credit**  
**Swimming**  
 Provides instruction of the basic swimming strokes, personal safety skills and conditioning programs for muscular and cardiovascular endurance of the swimmer. Students will attend this class at the Mark Morris pool.  
 Prerequisite: None
- PHED 235** **1.00-2.00 credits**  
**Fitness Walking** PAC  
 Utilizes walking in developing the health-related components of physical fitness. Emphasis will be placed on cardio respiratory endurance through low-impact, moderate intensity exercise.  
 Prerequisite: None
- PHED 236** F **1.00 credit**  
**Men's Applied Basketball II** PAC  
 Provides men's basketball student athletes an additional opportunity to refine skills, strategies, and rules of play, and to participate in a sport specific-strength and conditioning program. Required for all second year men's basketball student athletes.  
 Prerequisite: Instructor permission
- PHED 237** F **1.00 credit**  
**Women's Applied Basketball II** PAC  
 Provides women's basketball student athletes an additional opportunity to refine their basketball skills, strategies, understanding of rules of play, and to participate in a sport specific-strength and conditioning program. Required for all women's second year basketball student athletes.  
 Prerequisite: Instructor permission
- PHED 238** Sp **1.00 credit**  
**Applied Volleyball II** PAC  
 Provides volleyball student athletes an additional opportunity to refine their volleyball skills, strategies, and understanding of rules of play, and to participate in a volleyball-conditioning program. Required for all second year volleyball student athletes.  
 Prerequisite: Instructor permission
- PHED 246** F **1.00 credit**  
**Fast-pitch Softball-Women** PAC  
 Presents students the opportunity to learn fastpitch skills, strategies, and rules of play. Students will participate in a softball-conditioning program designed for the sport-related needs.  
 Prerequisite: None
- PHED 252** S,F,W,Sp **1.00-2.00 credits**  
**Personalized Fitness** PAC, REEL  
 Requires students to plan and execute an individual exercise program designed specifically to meet personal goals and objectives related to physical fitness. Students may utilize Lower Columbia's exercise facility or may choose to participate in off-campus activities.  
 Prerequisite: None
- PHED 282** **3.00 credits**  
**Water Safety Instruction**  
 Provides instruction in how to teach swimming and diving skills for infants through adults and is designed to prepare lifeguards, instructors, and pool administrators for employment as certified American Red Cross water safety instructors.  
 Prerequisite: None

**PHED 284** **2.00 credits**  
**Lifeguard Training**  
 Provides explanations, demonstrations, practice and review of rescue skills essential for Lifeguards as well as develop participants speed, endurance, and technique in swimming and Lifeguard skills. This course meets the requirements for American Red Cross certification in Lifeguard Training and is open to students who pass qualifying tests in swimming.  
 Prerequisite: None

**PHED 285** **F** **3.00 credits**  
**Fitness Marketing** **ELEC**  
 Provides an overview of the marketing process and functions with a focus on launching and growing a fitness business and/or career.  
 Prerequisites: None

**PHED 288** **1.00-15.00 credits**  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission  
 Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**PHED 295** **Sp** **3.00 credits**  
**Personal Training Instruction** **ELEC**  
 Provides content and skills necessary to become effective personal trainers and to prepare for the ACE Personal Trainer Certification Exam. This course presents the ACE Integrated Fitness Training® Model as a comprehensive system for designing individualized programs based on each client's unique health, fitness, and goals. Information covered will help students learn to facilitate rapport, adherence, self-efficacy, and behavior change in clients, as well as design programs to improve clients' posture, movement, flexibility, balance, core function, cardiorespiratory fitness, muscular endurance and strength, and sports performance. This course is built on a curriculum developed by a nationally recognized certification program.  
 Prerequisites: None

**PHED 296** **Sp** **3.00 credits**  
**Group Exercise Instruction** **ELEC**  
 Provides the knowledge and understanding necessary to prepare for the ACE Group Fitness Instructor Certification Exam and become effective group fitness instructors. Information covered includes: basic human anatomy and exercise physiology, steps in designing a successful group exercise class, understanding the fitness needs of special populations, and examining the business side of group fitness instruction.  
 Prerequisites: None

**PHED 299** **1.00-10.00 credits**  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisites: By instructor permission only.

## Physical Science (PHSC)

**PHSC 108** **5.00 credits**  
**Physical Science** **NSL**  
 Explores the everyday physical world through the study of matter, momentum and motion, forms of energy, electricity and magnetism. Physical laws are presented that describe the interaction of energy and matter that are seen in everyday life. Students will gain an understanding of the natural world and science as a field of study. Includes lab. Students cannot receive credit for both PHSC 108 and PHSC 109.  
 Prerequisite: None

**PHSC 109** **F** **5.00 credits**  
**Energy and Matter: Physical Sciences** **NSL**  
 Explores energy and matter through the study of matter, momentum and magnetism. Students will gain an understanding of the natural world and science as a field of study, as well as develop skills to apply and teach scientific principles in everyday life. Intended primarily for elementary education and early childhood education majors. Includes lab. Students cannot receive credit for both PHSC 108 and PHSC 109.  
 Prerequisite: None

## Physics (PHYS)

**PHYS& 100** **Sp** **5.00 credits**  
**Physics Non-Sci Majors** **NSL**  
 Emphasizes the process and historical/logical development of physics and relates the conceptual ideas of physics to everyday experience. The course is offered primarily to meet laboratory science requirements for an Associate degree; it is also useful in lieu of high school physics. Laboratory is included.  
 Prerequisites: MATH 089 or TECH 089 or MATH 097, or permission of the instructor.

**PHYS& 114** F **5.00 credits**  
**General Phys I w/Lab** **NSL**  
 Provides the first quarter of a sequence for students in various health science, technology, and pre-professional areas. Student-initiated motion studies introduce the fundamental principles of mechanics through studies of kinematics, Newton's Principles, energy and momentum conservation principles, and their rotational analogues. Students participate in supporting small group laboratory investigations.  
 Prerequisites: MATH 098/TECH 098 or MATH 099/TECH 099 or MATH 087/097 with a grade of C or better.

**PHYS& 115** W **5.00 credits**  
**General Phys II w/Lab** **NSL**  
 Incorporates both thermodynamics and electromagnetism, including active student investigations of temperature, heat and thermal energy, entropy, the properties of simple electric and magnetic fields, and simple AC and DC circuits. Classroom activities help students connect the nature and role of fundamental principles in physics with real everyday operations of those principles. Students learn operation and use of contemporary instrumentation in lab investigations.  
 Prerequisites: PHYS& 114 or Instructor Permission.

**PHYS& 116** Sp **5.00 credits**  
**General Phys III w/Lab** **NSL**  
 Emphasizes the scientific development of fundamental principles through active student investigations of mechanical and electromagnetic waves, geometrical and physical optics, special relativity, particles, waves, the quantum theory of the atom, the physics of the nucleus, and elementary particle theory as time permits.  
 Prerequisite: PHYS& 115 (was PHYS 102) or instructor permission.

**PHYS& 221** F **5.00 credits**  
**Engr Physics I w/Lab** **NSL**  
 Provides the first quarter of a three-quarter calculus-based physics sequence for majors in the physical sciences, engineering, or mathematics. The Principles of Newtonian Mechanics are introduced, progressing through kinematics, then dynamics, with applications to problems involving particle and rigid body motion. Small groups carry out supporting lab investigations that further clarify and apply these fundamental principles. Use of elementary calculus gradually increases during the quarter.  
 Prerequisites: Completion of or concurrent enrollment in MATH& 151 or instructor permission.

**PHYS& 222** W **5.00 credits**  
**Engr Physics II w/Lab** **NSL**  
 Second quarter of a three-quarter calculus-based physics sequence for majors in the physical sciences, engineering, or mathematics. Incorporates study of the mechanics of fluids, oscillatory motion, thermodynamics, electrostatics and electric current. Student labs include investigations of waves, temperature, heat flow, entropy and static electricity. The laboratory component further clarifies and applies these fundamental principles.  
 Prerequisites: PHYS& 221, MATH& 152 or instructor permission.

**PHYS& 223** Sp **5.00 credits**  
**Engr Physics III w/Lab** **NSL**  
 Third quarter of a three-quarter calculus-based physics sequence for majors in the physical sciences, engineering, or mathematics. Incorporates electromagnetism and wave physics through student investigation of magnetism, time-varying magnetic fields, DC and AC circuits, electromagnetic waves, geometrical and physical optics. The laboratory component further clarifies and applies these fundamental principles.  
 Prerequisites: PHYS& 222 or instructor permission.

**PHYS 288** **1.00-15.00 credits**  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**PHYS 299** **1.00-10.00 credits**  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

## Political Science (POLS)

**POLS& 101** F,W,Sp **5.00 credits**  
**Introduction To Political Science** **SOCS**  
 Examines the foundations of political science: key political ideas, theories, processes, and institutions, and explores examples of these in today's world.  
 Prerequisite: None

**POLS& 202** F,W,Sp **5.00 credits**  
**American Government** **SOCS**  
 Studies the structure practices and interactions of the political and governmental institutions of the United States, evaluating them from multiple theoretical perspectives.  
 Prerequisite: ENGL&101



**POLS& 203**                      **W,Sp**                      **5.00 credits**  
**International Relations**                      **SOCS**  
 Introduces the nature and basic principles of international politics, with an analysis of such concepts as imperialism, nationalism, internationalism, the causes of war, and conditions for peace.  
 Prerequisite: ENGL& 101

**POLS& 204**                      **5.00 credits**  
**Comparative Government**                      **SOCS**  
 Analyzes the political and economic systems and ideologies of capitalism, socialism, communism, and fascism within the context of the cultural traditions of Western Civilization and considers these systems as alternative methods of the allocation of political and economic power in society, with special emphasis given to the disparity between the stated objectives of these systems and their actual accomplishment.  
 Prerequisites: None

**POLS 220**                      **Sp**                      **5.00 credits**  
**Law and Social Issues**                      **SOCS**  
 Examines the interrelationships between law and social structures, processes, evolution and changes in society and laws. Explores lines drawn by democracies in the attempt to reconcile individual freedoms with the rights of the community. Analyzes and evaluates issues with basic rights and liberties, freedom of expression, due process of law, and political, social and racial equality.  
 Prerequisites: ENGL 099 with a C or higher, concurrent enrollment, or instructor permission.

**POLS 288**                      **1.00-15.00 credits**  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**POLS 294**                      **W**                      **1.00-5.00 credits**  
**Selected Topics in Political Science I**  
 Examines topical or special issues in political science. Course theme and content change to reflect new topics, which are announced in the quarterly class schedule.  
 Prerequisite: None

**POLS 295**                      **1.00-5.00 credits**  
**Selected Topics In Political Science II**  
 Examines topical or special issues in political science. Course theme and content change to reflect new topics, which are announced in the quarterly class schedule.  
 Prerequisite: None

**POLS 296**                      **1.00-5.00 credits**  
**Selected Topics In Political Science III**  
 Examines topical or special issues in political science. Course theme and content change to reflect new topics, which are announced in the quarterly class schedule.  
 Prerequisite: None

**POLS 297**                      **1.00-5.00 credits**  
**Selected Topics in Political Science IV**  
 Examines topical or special issues in political science. Course theme and content change to reflect new topics, which are announced in the quarterly class schedule.  
 Prerequisite: None

**POLS 299**                      **1.00-10.00 credits**  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisites: By instructor permission only.

## Process Control Manufacturing (PMFG)

**PMFG 110**                      **W**                      **5.00 credits**  
**Industrial & Predictive Maintenance Fundamentals**                      **REEL**  
 Introduces essential elements of industrial maintenance. Provides an overview of the jobs and tasks generally performed in manufacturing operations. Covers an overview of general types of industrial equipment, the proper use of a variety of hand tools and measuring instruments, and an exploration of fasteners, bearings, bushings, seals, and lubrication systems. Presents safety procedures including lockout/tag out of electrical/mechanical energy systems, sketching using ANSI standards, layout and machinery installation, and basic troubleshooting techniques.  
 Prerequisites: None

**PMFG 150**                      **F**                      **6.00 credits**  
**Electrical and Electronic Fundamentals**                      **REEL**  
 Introduces the nature and principles of electricity and electrical/electronic devices. Focuses on general principles, safety, industrial applications, and includes topics related to both DC and AC circuits. Topics explored include basic theory and direct current circuits, measuring instruments, interpretation of electrical and schematic diagrams, ohms law, basic electrical circuit analysis, applied mathematical concepts used in solving for values in series and parallel circuits, electrical safety and basic magnetic concepts. Additional topics are alternating current circuits, the use of AC measuring instruments, single phase and three phase AC distribution systems, transformers, and an overview of basic electronic devices, their function, and common applications. The course is designed for individuals entering the electrical trades, maintenance personnel or production/process operators.  
 Prerequisites: MATH 087 or MATH 088/TECH 088 or higher or concurrent enrollment, or instructor permission

**PMFG 151**                      **F**                      **5.00 credits**  
**Process Control Equipment**                      **REEL**  
 Provides an overview of process control equipment for operating personnel in industries utilizing process manufacturing techniques. Introduces the fundamentals of process control, control equipment and equipment fault identification and troubleshooting.  
 Prerequisites: None

**PMFG 154**                      **5.00 credits**  
**Fundamentals of Instrumentation and PLCs**                      **REEL**  
 Introduces principles of instrumentation controls and devices. Discusses the process of converting information into electrical or pneumatic signals for measurement and control, and its industrial applications. Introduces compressed air systems, programmable logic control, current-to-pressure, and piping instrument diagrams. Builds on knowledge of electrical fundamentals.  
 Prerequisites: PMFG 150 and PMFG 151 or instructor permission.

**PMFG 201**                      **W**                      **3.00 credits**  
**Electrical Control Equipment**                      **REEL**  
 Introduces the operation, troubleshooting, and adjustment of various types of electrical control equipment. Fuses, molded case circuit breakers, and control switches are covered. Includes basic principles of motor starters and troubleshooting of control circuits.  
 Prerequisite: PMFG 150 or instructor permission.

**PMFG 202**                      **Sp**                      **2.00 credits**  
**Electric Motors**                      **REEL**  
 Covers the concepts, maintenance, and testing of AC and DC motors. Includes a study of components and operation of a variety of AC motors and DC motors. Single-phase and three-phase motors are covered.  
 Prerequisite: PMFG 201 or instructor permission.

**PMFG 210**                      **Sp**                      **5.00 credits**  
**Advanced Industrial Maintenance**                      **REEL**  
 Explores more advanced industrial maintenance topics, including preventative maintenance, centrifugal pump repair, valve repair, rigging and lifting, vibration analysis, and shaft alignment. Safe work practices are stressed, and relevant safety topics are covered during the course.  
 Prerequisite: PMFG 110 or instructor permission.

**PMFG 220**                      **Sp**                      **5.00 credits**  
**Introduction to Renewable Energy**                      **REEL**  
 This course provides an introduction to renewable energy sources. Topics will include biomass for fuels and electricity generation, solar, wind, geothermal and hydroelectric energy. Students will compare technology, social, environmental and economic impacts of renewable energy. Upon completion, students will be able to demonstrate an understanding of renewable energy and its impact on humans and the environment.  
 Prerequisites: MATH 089/TECH 089 or MATH 097 and ENGL 099 or higher or instructor permission

**PMFG 288**                      **1.00-15.00 credits**  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission  
 Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**PMFG 299**                      **1.00-10.00 credits**  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisites: By instructor permission only.

## Psychology (PSYC)

**PSYC& 100**                      **S,F,W,Sp**                      **5.00 credits**  
**General Psychology**                      **SOCS**  
 Studies the science of behavior and fosters understanding of human development, learning, motivation, emotions, reactions to frustration, mental health and therapy, perception, and personality.  
 Prerequisite: None

**PSYC& 200**                      **S,F,W,Sp**                      **5.00 credits**  
**Lifespan Psychology**                      **SOCS**  
 Studies the physical, emotional, and social developmental behavior of the individual from childhood through adolescence, early adulthood, and late adulthood, and emphasizes specific stages encountered at various developmental levels.  
 Prerequisite: PSYC& 100 (was PSYC 111) or instructor permission.

**PSYC& 220**                      **W**                      **5.00 credits**  
**Abnormal Psychology**  
 Presents a study of abnormal psychopathology, specifically a study of abnormal human behavior, its description, causes, and diagnosis. Emphasis on treatment and major diagnostic categories such as schizophrenia, personality, mood, and organic brain disorders.  
 Prerequisite: PSYC& 100 (was PSYC 111) or instructor permission.

**PSYC 140**                      **3.00 credits**  
**Introduction to Sport Psychology**  
 Emphasizes the psychological factors affecting individual behavior as it relates to sport performance and provides student athletes the resources to better understand, predict, and modify competitive sport performance as a result.  
 Prerequisite: None

**PSYC 150** F,W,Sp 2.00 credits  
**Psychosocial Issues in Health Care I** SOCS  
 Presents concepts necessary for the provision of psychosocial healthcare. Examines determinants of health and illness across the lifespan, including social, psychological, environmental, spiritual and cultural dimensions, within the context of health care. Topics include coping mechanisms, therapeutic communication, culturally sensitive nursing care and social determinates of health. Fulfills distribution requirement for AN-DTA only. Course offering to nursing program students only.  
 Prerequisites: NURS 152 with a grade of 'C' or higher or instructor permission.

**PSYC 198** Sp 1.00-2.00 credits  
**Special Topics in General Psychology** SOCS  
 Discusses selected topics in psychology, with an emphasis on health care. Restricted to students majoring in nursing who have successfully completed PSYC& 100 at another institution but require one to two additional credits for the AN DTA/MRP degree. Course intended for nursing students who have transferred in three or four credits of PSYC& 100 from another institution. Five credits are required for the AN DTA/MRP degree.  
 Prerequisites: Instructor permission and PSYC& 100.

**PSYC 204** 5.00 credits  
**Applied Psychology** SOCS  
 Studies applications of psychology in such areas as human motivation, business, industry, education, psychiatry, law, death and dying, combat, violence, and problems related to development.  
 Prerequisite: PSYC& 100 (was PSYC 111) or instructor permission.

**PSYC 214** 5.00 credits  
**Psychology of Adjustment** SOCS  
 Studies the nature of the personality, personality formation, and adjustment to environment. Dynamics of adjustment, normal and abnormal patterns of adjustment, the development of emotional, social, and intellectual competencies, and a survey of applicable theories of personality are included.  
 Prerequisite: PSYC& 100 (was PSYC 111) or instructor permission.

**PSYC 250** F,W,Sp 3.00 credits  
**Psychosocial Issues in Health Care II** SOCS  
 Presents additional concepts necessary for the provision of psychosocial healthcare. Analyzes determinants of health and illness across the lifespan, including social, psychological, environmental, spiritual and cultural dimensions, within the context of health care. Topics include care of the client experiencing mental health challenges, anxiety disorders, thought disorders, mood disorders and chemical dependency. Fulfills distribution requirement for AN-DTA only. Course offering to nursing program students only.  
 Prerequisites: NURS 251 and PSYC 150 (or 2 credits of PSYC 255 with a grade of 'C' or higher).

**PSYC 255** F,W,Sp 2.00-5.00 credits  
**Psychosocial Issues in Health Care** SOCS  
 Presents additional concepts necessary for the provision of psychosocial healthcare. Analyzes determinants of health and illness across the lifespan, including social, psychological, environmental, spiritual and cultural dimensions, within the context of health care. Topics include care of the client experiencing mental health challenges, anxiety disorders, thought disorders, mood disorders and chemical dependency. Fulfills distribution requirement for AN-DTA only. Restricted to students admitted to the nursing program.  
 Prerequisite: Admission to the Nursing program.

**PSYC 288** S,F,W,Sp 1.00-15.00 credits  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**PSYC 298** Sp 1.00-2.00 credits  
**Special Topics in Lifespan Psychology** SOCS  
 Discusses selected topics in lifespan psychology. Restricted to students majoring in nursing who have successfully completed PSYC& 200 at another institution but require one or two additional credits for the AN DTA/MRP degree. Course intended for nursing students who have transferred in three or four credits of PSYC& 200 from another institution. Five credits are required for the AN DTA/MRP degree.  
 Prerequisites: Instructor permission and PSYC& 200.

**PSYC 299** 1.00-10.00 credits  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisites: By instructor permission only.

## Sociology (SOC)

**SOC& 101** S,F,W,Sp 5.00 credits  
**Introduction to Sociology: DIV** SOCS, DIV  
 Examines the complexity of the sociological perspective to provide students with the conceptual tools essential to the development of a more complex understanding of the human condition. Students develop a comprehension of the role that social organization, socialization and social interaction plays in the formulation of social identity, a common conceptual understanding, social inequality and cultural diversity. (Formerly known as SOCY 110)  
 Prerequisite: None

**SOC 210** **5.00 credits**  
**Human Sexuality: DIV** **SOCS, DIV**  
 Presents examination of the scientific research that has led to a better understanding of human sexuality in its anatomical, physiological, sociological, cultural, and psychological aspects. Draws upon the multiple disciplines of sociology, psychology, and cultural anthropology. Incorporates English literature in biographies and/or short story form to illuminate real world issues. Special attention is given to sexual diversity, specifically marginalized LBGQTQ individuals, sexual disorders, and sex and gender non-conformity.  
 Prerequisites: None.

**SOC 225** **5.00 credits**  
**Race and Ethnicity: DIV** **DIV, SOCS**  
 Examines the complexities of race and ethnicity in America and around the world. Topics include the social construction of racial and ethnic identities, the historical patterns of racial and ethnic exclusion, and the role of race and ethnicity in the perpetuation of social inequality and the shaping of world events.  
 Prerequisite: None

**SOC 288** **1.00-15.00 credits**  
**Cooperative Work Experience**  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**SOC 299** **1.00-10.00 credits**  
**Independent Study**  
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.  
 Prerequisites: By instructor permission only.

## Spanish (SPAN)

**SPAN& 121** **S,F,W,Sp** **5.00 credits**  
**Spanish I: DIV** **DIV, HUM**  
 Introduces Spanish, emphasizing basic vocabulary and points of language. Aiming at self-expression and literacy, this course engages students in reading, writing, listening, and speaking in the target language. Students will also acquire knowledge of the diverse social, ethnic, and cultural groups that use the language and observe how artistic expression reflects the diversity of cultural values.  
 Prerequisites: None

**SPAN& 122** **S,F,W,Sp** **5.00 credits**  
**Spanish II: DIV** **HUM, DIV**  
 Provides continuation of basic principles offered in SPAN& 121, accumulates vocabulary, reinforces basic

grammar, and increases fluency. Aiming at self-expression and literacy, this course engages students in reading, writing, listening, and speaking in the target language. Students will also acquire knowledge of the diverse social, ethnic, and cultural groups that use the language and observe how artistic expression reflects the diversity of cultural values.  
 Prerequisites: SPAN& 121 with a grade of C or better or two years of high school Spanish.

**SPAN& 123** **S,F,W,Sp** **5.00 credits**  
**Spanish III: DIV** **DIV, HUM**  
 Provides further development of basic skills, accumulates vocabulary, reinforces basic grammar, introduces new grammatical principles, and increases fluency. Aiming at self-expression and literacy, this course engages students in reading, writing, listening, and speaking in the target language. Students will also acquire knowledge of the diverse social, ethnic, and cultural groups that use the language and observe how artistic expression reflects the diversity of cultural values.  
 Prerequisites: SPAN& 122 with a grade of C or better or three years of high school Spanish.

**SPAN& 221** **S,F,W,Sp** **5.00 credits**  
**Spanish IV** **HUM**  
 Provides an intensive review of vocabulary and basic points of language included in the first year, introduces new points, develops communication problem solving skills, and builds an extensive vocabulary pertinent to contemporary social and cultural issues.(Formerly known as SPAN 201)  
 Prerequisite: For enrollment in second-year Spanish courses, students must complete first-year college level Spanish.

**SPAN& 222** **S,F,W,Sp** **5.00 credits**  
**Spanish V** **HUM**  
 Continues to build communication skills, accumulate vocabulary, and increase fluency, with added emphasis on literacy. (Formerly known as SPAN 202)  
 Prerequisite: SPAN& 221 (was SPAN 201) or equivalent.

**SPAN& 223** **S,F,W,Sp** **5.00 credits**  
**Spanish VI** **HUM**  
 Continues to build communication skills, accumulate vocabulary, and increase fluency, with added emphasis on literacy. (Formerly known as SPAN 203)  
 Prerequisite: SPAN& 222 (was SPAN 202) or equivalent.

**SPAN 104** **3.00-5.00 credits**  
**Introduction to Spanish in the Workplace**

Introduces Spanish, presenting realistic situations and specialized vocabulary needed for basic communication with Spanish speakers in the workplace. Personalized questions, grammar exercises, dialog activities, and role-playing provide students with numerous opportunities to apply points of language in a wide variety of practical contexts. Within any of the vocabulary-specific domains, students will advance from one level to the next in sequence (SPAN 105, 106, and 107).

Prerequisite: None

**SPAN 105** **3.00-5.00 credits**  
**Introduction to Spanish in the Workplace**

Builds vocabulary and introduces more complex points of language, including idioms, grammar, and, especially, pronunciation. Provides additional opportunities for telephone and face-to-face communication in workplace settings. Within any of the vocabulary-specific domains, students will advance from one level to the next in sequence (SPAN 105, 106, and 107).

Prerequisite: SPAN 104 or equivalent

**SPAN 106** **3.00-5.00 credits**  
**Spanish in the Workplace**

Accumulates vocabulary and introduces additional verb forms and pronoun usage, which are essential to clear oral communication. Enables further telephone and face-to-face communication with clients and co-workers whose principle language is Spanish. Within any of the vocabulary-specific domains, students will advance from one level to the next in sequence (SPAN 105, 106, and 107).

Prerequisite: SPAN 105 or equivalent

**SPAN 107** **3.00-5.00 credits**  
**Spanish in the Workplace**

Increases fluency, concentrating on effective communication (listening and speaking), self-expression, and literacy. Within a particular domain, students will learn to interact with clients and co-workers whose principal language is Spanish. Within any of the vocabulary-specific domains, students will advance from one level to the next in sequence (SPAN 105, 106, and 107).

Prerequisite: SPAN 106

**SPAN 288** **F,W** **1.00-15.00 credits**  
**Cooperative Work Experience**

Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.

Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**SPAN 299** **1.00-10.00 credits**  
**Independent Study**

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisites: By instructor permission only.

**SPAN 97** **2.00 credits**  
**Spanish Grammar For Beginners: Present Tense Verbs**

Enables understanding of verb conjugation in the present tense in Spanish. Presents minimal vocabulary and does not concern oral proficiency. While this course is self-directed, students may be assisted by a tutor or an instructor. Graded on a credit/no credit basis. (Formerly known as INDV 097)

Prerequisite: None

**SPAN 98** **1.00 credit**  
**Spanish Grammar For Beginners: Nouns/Modifiers**

Enables understanding of nouns and modifiers in Spanish. Presents minimal vocabulary and does not concern oral proficiency. While this course is self-directed, students may be assisted by a tutor or an instructor. Graded on a credit/no credit basis. (Formerly known as INDV 098)

Prerequisite: None

## Technology Education (TECH)

**TECH 100** **5.00 credits**  
**Advanced Principles of Technology** **REEL**

Provides hands-on study of energy, power, and force transformers in mechanical, fluid, electrical and thermal energy systems. Includes a review of force, work, rate, and resistance. Students will learn through a combination of lab experiments and discussion of the physics and math related to each energy system. The application in industry of various concepts is also explored.

Prerequisite: One year of high school principles of technology (certificate from instructor required), or TECH 090, or MATH 106 or higher.

**TECH 170** **F** **4.00 credits**  
**Statistical Process Control** **REEL**

Explores the use of statistical process control as a means of improving a process. Problem-solving techniques including brainstorming, Pareto diagrams, and cause and effect diagrams are also examined.

Prerequisite: Recommended: MATH 106 or higher.

**TECH 288** **1.00-15.00 credits****Cooperative Work Experience**

Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.

Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**TECH 299** **1.00-10.00 credits****Independent Study**

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisites: By instructor permission only.

**TECH 75** **5.00 credits****Introduction To Technical Reading/Writing**

Offers basic writing/reading skills for technical students. Skills include writing complete sentences, improving spelling, and using writing as a form of communication. Additionally, students will learn how to read technical materials effectively, expand vocabulary, and improve comprehension.

Prerequisite: None

**TECH 78** **3.00 credits****Pre-College Math I**

Covers operations on and applications of integers, fractions, and decimals. This is the first in a three quarter pre-college mathematics sequence which contains pre-college math modules 01 - 03. Credit cannot be earned for both MATH 078 and TECH 078.

Prerequisite: Placement exam or instructor permission.

**TECH 79** **2.00 credits****Pre-College Math I**

Covers operations on and applications of ratios, proportions, and percents. Also includes topics in measurement and geometry. This is the continuation of the first in a three quarter pre-college mathematics sequence which contains pre-college math modules 04 - 05. Credit cannot be earned for both MATH 079 and TECH 079.

Prerequisite: MATH 078 with a C or better, placement exam, or instructor permission.

**TECH 88** **3.00 credits****Pre-College Math II**

Covers solving linear equations and inequalities and an introduction to functions and graphing. Techniques and strategies for problem solving are emphasized. This is the second in a three quarter pre-college mathematics sequence which contains pre-college math modules 06-08. Credit cannot be earned for both MATH 088 and TECH 088.

Prerequisite: MATH 079 or TECH 079 with a C or better, placement exam or instructor permission.

**TECH 89** **2.00 credits****Pre-College Math II**

Covers solving systems of linear equations and operations on polynomials. This is the continuation of the second in a three quarter pre-college mathematics sequence which contains pre-college math modules 09-10. Credit cannot be earned for both MATH 089 and TECH 089.

Prerequisites: C or better in MATH 087 or MATH 088 or TECH 088, Placement Exam, or instructor permission.

**TECH 90** **5.00 credits****Principles Of Technology**

Explores the mechanical, fluid, electrical, and thermal systems on which modern technology operates. Hands-on, real-world lab activities are integrated with mathematics and physics instruction to provide an understanding of the units of force, work, rate, resistance, and energy associated with each system.

Prerequisite: None

**TECH 98** **3.00 credits****Pre-College Math III**

Covers factoring polynomials and operations on rational and radical expressions. This is the third in a three quarter pre-college mathematics sequence which contains pre-college math modules 11-13. Credit cannot be earned for both MATH 098 and TECH 098.

Prerequisites: C or better in MATH 089 or TECH 089 or MATH 097, Placement Exam, or instructor permission.

**TECH 99** **5.00 credits****Pre-College Math III**

Covers solving systems of equations, operations on rational and radical expressions, solving and graphing quadratic equations, and an introduction to exponential and logarithmic functions. This is the third in a three course pre-college mathematics sequence which contains pre-college math modules 11 - 15. Credit cannot be earned for both MATH 099 and TECH 099.

Prerequisite: C or better in TECH 098 or MATH 098, placement exam, or instructor permission.

## Welding (WELD)

**WELD 105** **S,F,W,Sp** **1.00-6.00 credits****Related Welding****REEL**

Studies shop safety practices and common welding techniques for related curriculums. The common welding techniques will include oxy-acetylene welding, cutting and brazing, SMAW stick welding, and FCAW-G wire feed welding.

Prerequisites: None

**WELD 125** F,W,Sp 1.00-6.00 credits  
**OFW-A - Oxy/Acetylene Welding with RG45** REEL  
 Covers the fundamentals of oxy/acetylene welding, brazing, and cutting of mild steel, in all welding positions for numerous weld joints. Explores key techniques that are utilized in later welding processes. Introduces selected cutting processes and equipment used in the metal trades. This is the 1st class recommended for any student seeking a degree or certificate.  
 Prerequisites: None Concurrent requirements: None

**WELD 131** S,F,W,Sp 1.00-10.00 credits  
**SMAW - Stick Welding with E7018** REEL  
 Covers the fundamentals of stick welding of mild steel with 7018 electrodes in all welding positions for numerous weld joints. Explores key welding and fitting techniques through project based print reading and become familiar with selected cutting processes and equipment used in the metal trades. This is the 2nd class recommended for any student seeking a degree or certificate.  
 Prerequisites: None Concurrent requirements: None

**WELD 132** F,W,Sp 1.00-10.00 credits  
**SMAW - Stick Welding with E6010** REEL  
 Covers the fundamentals of stick welding of mild steel with 6010 electrodes in all welding positions for numerous weld joints. Explores key welding and fitting techniques through project based print reading. Discusses selected cutting processes and equipment used in the metal trades. This is the 3rd class recommended for any student seeking a degree but not necessary for a certificate.  
 Prerequisites: WELD 131 or Instructor Permission  
 Concurrent requirements: None

**WELD 133** F,W,Sp 1.00-10.00 credits  
**Advanced SMAW and Other Stick Welding Electrodes - WABO** REEL  
 Expands on fundamental skills of stick welding of mild steel with 7018 and 6010 electrodes to a more advanced level of full penetration welding. Emphasizes a 2-position WABO plate certification weld test on 1" plate. Explores selected SMAW electrodes such as 308, 309, and 7024, as well as structural welding techniques such as coping and mitering of structural steel members. Covers key welding and fitting techniques through project based print reading. Discusses selected cutting processes and equipment used in the metal trades. This is the 4th class recommended for any student seeking a degree but not necessary for a certificate.  
 Prerequisites: WELD 132 or Instructor Permission  
 Concurrent requirements: None

**WELD 158** Sp 5.00 credits  
**Welding Theory and Fabrication** REEL  
 Covers theoretical and practical applications of welding processes and metal fabrication. Work on project is required outside of class.  
 Prerequisite: WELD 125, 131 or instructor permission

**WELD 241** F,W,Sp 1.00-10.00 credits  
**FCAW-G - Dual Shield Wire Feed Welding with E71T-1** REEL  
 Covers the fundamentals of wire feed welding of mild steel with E71T-1 dual shield 0.045" electrode wire in all welding positions for numerous weld joints. Explores key welding and fitting techniques through project based print reading and covers selected cutting processes and equipment used in the metal trades. This is the 5th class recommended for any student seeking a degree and the 3rd class recommended for a certificate.  
 Prerequisites: None Concurrent requirements: None

**WELD 242** F,W,Sp 1.00-6.00 credits  
**Advanced FCAW-G and Other Wire Feed Welding Processes - WABO** REEL  
 Expands on fundamental skills of wire feed welding of mild steel with E71T-1 dual shield 0.045" electrode wire to a more advanced level of welding. Focuses on a 2-position WABO plate certification weld test on 1" plate. Explores selected wire feed processes such as GMAW solid wire, GMAW aluminum spool gun, and FCAW-S self-shielding wire. Presents key welding and fitting techniques through project based print reading. Discusses selected cutting processes and equipment used in the metal trades. This is the 6th class recommended for any student seeking a degree but not necessary for a certificate.  
 Prerequisites: WELD 241 or Instructor Permission  
 Concurrent requirements: None

**WELD 255** S,F,W,Sp 1.00-10.00 credits  
**GTAW - Tig Welding with ER70S-6 and Other Electrode/Rods** REEL  
 Covers the fundamentals of tig welding of mild steel with ER70S-6 in all welding positions for numerous weld joints. Explores other GTAW electrodes/rods such as 308 stainless steel and 4043 / 5356 aluminum. Covers key welding and fitting techniques through project based print reading. Discusses selected cutting processes and equipment used in the metal trades. This is the 7th and final class recommended for any student seeking a degree but not necessary for a certificate.  
 Prerequisites: None Concurrent requirements: None

**WELD 288** S,F,W,Sp 1.00-15.00 credits  
**Cooperative Work Experience** REEL  
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.  
 Prerequisites: Instructor or Cooperative Education Coordinator permission  
 Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.

**WELD 299 S,F,W,Sp 1.00-10.00 credits  
Independent Study**

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisites: By instructor permission only.

**WELD 60 F,W,Sp 1.00-6.00 credits  
WABO Exam Preparation REEL**

Provides focused studies toward advanced welding techniques in preparation for the WABO (Washington Association of Building Officials) welder certification test.

This course is a prerequisite for WELD 070 and 075 (WABO test courses). Passing a WABO test is required for AAS degree in Welding. Prerequisites: Instructor permission required to enroll.

**WELD 70 S,F,W,Sp 0.00 credit  
Welding Certification (WABO Retest)**

Provides WABO testers the opportunity to do a complete or partial retest if initial attempts to certify welds did not pass inspection. This course is a program requirement. Successful completion of the WABO certification exam is required for graduation.

Prerequisites: WELD 060 or Instructor permission

**WELD 71 F 1.00 credit  
Welding Support I**

Introduces shop safety practices and common welding techniques for related curriculums. The common welding techniques addressed will include oxy/fuel cutting and brazing, and basic welding. Concurrent enrollment in WELD 105 required.

Prerequisite: None

**WELD 72 W 1.00 credit  
Welding Support II**

Introduces shop safety practices and common welding techniques for related curriculums. The common welding techniques addressed will include oxy/fuel cutting and brazing, basic arc welding, and wire feed welding. Concurrent enrollment in WELD 105 required.

Prerequisite: None

**WELD 75 0.00 credit  
Welding Certification (WABO Exam)**

Provides WABO testing with the following processes: SMAW, FCAW-S, FCAW-G, GMAW on plate, pipe, or light gauge materials. This course is a program requirement. Successful completion of the WABO certification exam is required for graduation.

Prerequisites: WELD 060 or Instructor permission