2014-15 UPDATE
to the 2013-14 CATALOG

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## Centralia College Calendar 2014-15

### FALL QUARTER 2014
- Labor Day Holiday: September 1 (M)
- Faculty Days: September 8-19
- Assessment Day*: September 15 (M)
- First Day of Class: September 22 (M)
- All Campus Meeting (No Classes): October 10 (F)
- Veterans Day (No Classes): November 11 (T)
- Advising Day (No Classes)*: November 13 (W)
- Thanksgiving Holiday (No Classes): November 27, 28 (Th, F)
- Last Class Day: December 5 (F)
- Final Examinations: December 8, 9, 10 (MTW)
- Faculty Days: December 11, 12, 15, 16 (Th, F, MT)
- Winter Holiday: December 25 (Th)
- Quarter Break: December 11–January 1

### WINTER QUARTER 2015
- New Year's Day Holiday (No Classes): January 1 (Th)
- Faculty Day: January 2 (F)
- First Day of Class: January 5 (M)
- Martin Luther King Holiday (No Classes): January 19 (M)
- Advising Day (All classes in session): February 11 (W)
- President's Day Holiday (No Classes): February 16 (M)
- Last Class Day: March 16 (M)
- Assessment Day (No Classes)*: March 17 (T)
- Final Examinations: March 18, 19, 20 (W, Th, F)
- Quarter Break: March 21-29

### SPRING QUARTER 2015
- First Day of Class: March 30 (M)
- Advising Day (No Classes)*: May 14 (Th)
- Memorial Day Holiday (No Classes): May 25 (M)
- Last Class Day: June 8 (M)
- Assessment Day (No Classes)*: June 9 (T)
- Final Examinations: June 10, 11, 12 (W, Th, F)
- Commencement: June 12 (F)
- Faculty Day: June 15 (M)
- Quarter Break: June 13-30

### SUMMER QUARTER 2015
- First Day of Class: July 1 (W)
- Fourth of July Holiday Observed: July 3 (F)
- Last Class Day (6 week session): August 14 (F)
- Last Class Day (8 week session): August 28 (F)

## Centralia College Calendar 2015-16

### FALL QUARTER 2015
- Labor Day Holiday: September 7 (M)
- Faculty Days: September 8-18
- Assessment Day*: September 14 (M)
- First Day of Class: September 21 (M)
- All Campus Meeting (No Classes): October 9 (F)
- Veterans Day (No Classes): November 11 (W)
- Advising Day (No Classes)*: November 17 (T)
- Thanksgiving Day (No Classes): November 26, 27 (Th, F)
- Last Class Day: December 4 (F)
- Final Examinations: December 7, 8, 9 (MTW)
- Faculty Days: December 10, 11 (Th, F)
- Winter Holiday: December 25 (Th)
- Quarter Break: December 10–January 3

### WINTER QUARTER 2016
- New Year's Day Holiday (No Classes): January 1 (Th)
- First Day of Class: January 4 (M)
- Martin Luther King Holiday (No Classes): January 18 (M)
- Advising Day (All classes in session): February 10 (W)
- President's Day Holiday (No Classes): February 16 (M)
- Last Class Day: March 14 (M)
- Assessment Day (No Classes)*: March 15 (M)
- Final Examinations: March 18, 19, 20 (W, Th, F)
- Quarter Break: March 19-29

### SPRING QUARTER 2016
- First Day of Class: March 30 (M)
- Advising Day (No Classes)*: May 14 (Th)
- Memorial Day Holiday (No Classes): May 30 (M)
- Last Class Day: June 6 (M)
- Assessment Day (No Classes)*: June 7 (M)
- Final Examinations: June 8, 9, 10 (W, Th, F)
- Commencement: June 10 (F)
- Quarter Break: June 11-July 4

### SUMMER QUARTER 2016
- Fourth of July Holiday: July 4 (M)
- First Day of Class: July 5 (F)
- Last Class Day (6 week session): August 12 (F)
- Last Class Day (8 week session): August 26 (F)
Grades

Centralia College uses a numerical grading system. Instructors report passing grades from 4.0 to 1.0 in 0.1 increments. Instructors assign the number 0.0 for failing work and must assign a date of last attendance. Numerical grades are equivalent to letter grades as follows:

4.0-3.9 A Superior achievement
3.8-3.5 A- High achievement
3.4-3.2 B+ Average achievement
3.1-2.9 B Minimum achievement
2.8-2.5 B- Average achievement
2.4-2.2 C+ High achievement
2.1-1.9 C Minimum achievement
1.8-1.5 C- High achievement
1.4-1.2 D+ Average achievement
1.1-1.0 D Minimum achievement
0.0 F Failure to meet minimum course requirements.

W Withdrawal. May be awarded only on or before the 35th class day. May only be student-initiated. Requires dated signature of student. Not calculated in the grade point average. The college encourages students to speak with their instructor(s) before withdrawal.

WP Passing withdrawal. Indicates student had completed enough work to pass the course (1.0 or above) at the time of withdrawal. May be awarded only after the 35th class day, but before the first day of finals. May only be student initiated. Requires dated signature of the student. Requires dated signature and “WP” grade of the instructor. Not calculated in the grade point average.

WF Failing withdrawal. Indicates student was doing failing work (below 1.0) at the time of withdrawal. May be awarded only after the 35th class day, but before the first day of finals. May only be student initiated. Requires dated signature of the student. Requires dated signature and “WF” grade of the instructor. Not calculated in the grade point average. Receiving institutions may treat this grade as a 0.0.

I Incomplete; no grade points calculated. The student must have finished a substantial portion of the work, attended past the 35th class day, be passing the course (1.0 or above), and because of circumstances not ordinarily controllable by the student, was not able to finish the course prior to grading. The instructor and student must complete a detailed contract that specifies what work is remaining, and when it is due. The contract must specify the default grade, if the additional work is not accomplished by the time limit. The grade shall revert to the default grade, if no new grade is turned in by the instructor by the time limit. The instructor, student, and the Enrollment Services Office receive copies of the contract. If there is no contract, or an incomplete contract when an “I” has been requested by the instructor, the grade shall be recorded as an *, until a complete contract is on file in the Enrollment Services Office. Incompletes must be completed by the end of the next quarter, except that spring quarter incompletes must be completed by the end of the following fall quarter.

N Audit. No credit. Not calculated in grade point average.

S Passing with credit. Not calculated in grade point average. Used only by approved departments. Degrees and certificates may limit the use of S credits.

U Unsatisfactory progress. Not calculated in grade point average. Used only by approved departments.

Y In Progress; no grade point calculated. Used in courses, such as correspondence, that do not begin or end with the regular quarter calendar. Not calculated in grade point average. A student has two quarters to complete the class (an extension for a third quarter is available for an additional fee). The instructor will submit a change of grade form to the Enrollment Services Office at the completion of the coursework within the time limit. If no new grade is turned in by the instructor a grade of 0.0 will be issued.
Time Limitation to Change a Grade
Instructor may authorize a grade change within the next quarter of the academic year. Summer quarter is excluded (i.e., spring quarter grade changes must be made by end of fall quarter; summer quarter changes must be made by end of fall quarter).

Course Audit
You may attend a class but not receive credit. To do this, register as an “auditor.” Auditors pay regular credit hour and lab fees. An auditor does not take examinations or receive credit for the course. Your transcript will show an “N” for an audited course.

Grade Forgiveness
The Centralia College grade forgiveness policy may allow you to repair your Centralia College grade point average by not counting poor grades you earned. This can be done only under certain circumstances:

A. Only grades below a 2.0 may be forgiven.
B. The grades must be at least two years old.
C. You must demonstrate improvement by earning a cumulative GPA of 2.5 or higher in all courses taken after the most recent course for which you are requesting forgiveness. You must have completed a minimum of 24 credits to demonstrate improvement since that last date.

To apply for grade forgiveness, complete a “Grade Forgiveness Request Form.” Obtain this form from the Enrollment Services Office. Submit this form to that office. Enrollment Services staff will review your academic record and determine which grades, if any, may be forgiven. Enrollment Services staff will notify you of the results. You may appeal the decision in writing to the Director of Enrollment Services. The Director of Enrollment Services will notify you by mail of the results of your appeal.

Forgiven grades and credits will remain on your transcript but will not be calculated in your GPA at Centralia College. You cannot use forgiven credits towards any degree, certificate, program, or course requirement at Centralia College. You may not have forgiven grades reinstated later.

ADVISING NOTE: If you transfer to another college, that college may choose not to recognize the forgiveness. This means that staff at another college could recalculate your GPA, counting all your grades for admission and transfer purposes.

Repeating a Course
You may repeat a class, but you will receive credit for taking it once. To have a higher grade in a repeated class count in your GPA, you must request the Enrollment Services Office staff to count only the higher grade in your GPA. Both grades will remain on your permanent record.

ADVISING TIP: If you transfer to another college, that college may choose either grade or the average of your grades.
Degrees/Certificates

Centralia College offers different degrees to meet varied student needs. All associate degrees require a minimum of 90 credits. Students must complete the last 15 credits or 35 of the final 45 credits at Centralia College to be eligible for a degree from Centralia College. It is possible to earn a second degree if you satisfy all the requirements of both degrees.

**Bachelor of Applied Science Degrees**

Please see page 64 for more information.

**General Transfer degrees** are accepted by all state colleges and universities in Washington State through formal agreements, including the Direct Transfer Agreement (DTA), between the universities and the community college system. Students who complete a General Transfer degree will, upon acceptance to a Washington State public or signatory private college or university, generally be granted 90 transfer credits. Students may still need to complete more than 90 quarterly credits to graduate in their major. Centralia College General transfer degrees include:

- Associate in Arts and derivative degrees
- Associate in Science and derivative degrees

**Limited Transfer degrees** may be accepted by select baccalaureate institutions, but there is no state-wide agreement guaranteeing 90 credits will be accepted in transfer. Depending upon the institution, students may have their credits evaluated on a course by course basis. Centralia College Limited Transfer degrees include:

- Associate in Applied Science – Transfer

**Workforce Education degrees** are designed to provide detailed skills related to a profession and are not primarily intended for transfer.

Some institutions do accept these degrees under an “upside down” model that allows the student to do content specific work in the first two years and round out his or her education by completing general university requirements (GURs) in the second two years of the baccalaureate. Centralia College Workforce Education degrees include:

- Associate in Applied Science
- Associate in Technical Arts

**The General Studies degree** allows the student more latitude in designing a degree based upon personal interests, but does not necessarily meet the requirements for direct transfer. As with all degrees not designated as General Transfer, there is no guarantee all 90 credits required for the degree will transfer.

**Certificates of Proficiency** are Workforce Education programs that require at least 45 credits and which provide job specific skills.

**Certificates of Completion** are similar to Certificates of Proficiency except requiring less than 45 credits.

**High School Diplomas and GEDs** can be obtained by meeting all requirements for the Centralia College High School Diploma or by passing the GED tests, respectively.

**Educational Outcomes**

Student learning is central to the college’s mission. All degrees offered by Centralia College are designed to provide experiences that lead to the attainment of general education outcomes as embodied in the following Learning Themes:

- **Reasoning:** The ability to extract information from data, develop ideas and solutions, establish logical progression in thinking, and problem solve using such procedures as literary analysis or the scientific method.
- **Written, Oral and Visual Communication:** The ability to make oneself understood in public, interpersonal, professional, artistic, and technical arenas.
- **Exploration – Self and Others:** An awareness of the values, beliefs, customs, and contributions from one’s own and other traditions, ethnicities, classes and genders.

**Resourcefulness:** The ability to adapt to change, such as technological innovations or environmental conditions.

**Responsibility:** The ability to be accountable to self, society, and the natural world.

To support the attainment of these general educational outcomes, instruction in major areas of inquiry is required for all degrees. The transfer degrees include courses in the Distribution Areas of communication, quantitative skills, humanities, social sciences, natural sciences, diversity, and health and fitness. Workforce Education degrees and certificates of proficiency achieve this end through the inclusion of related instruction in communication, computation, human relations, and health and fitness.

**Program Outcomes**

**Distribution Area Outcomes**, found at the end of this section, define the program outcomes for degrees based on the Direct Transfer Agreement (DTA) and Associate in Science. In addition to the general outcomes, individual transfer programs have content designed to prepare students for success in that field. Each Workforce Education degree or certificate includes courses that enable students to achieve profession-specific learning outcomes. These program outcomes are listed on the program pages on the college Web site.

**General Transfer Degrees**

**Associate in Arts Degree**

In addition to the general requirements listed below, derivative programs may have additional requirements as listed in the programs of study in the next section. The Associate in Arts degree represents the broad knowledge generally acquired in the first two years of a four-year program leading to a Bachelor of Arts degree. When you have earned the AA, you may transfer to a baccalaureate institution within the state of Washington with assurance that you have satisfied all or most of the basic requirements (General University Requirements/Distribution Requirements). This means, generally, that AA transfer students can begin work on their specialized, major-area course work as soon as they transfer.

**Degree requirements:**

To qualify for an Associate in Arts degree, you must complete a minimum of 90 credits in courses numbered 100 or above, with a cumulative grade point average (GPA) of at least 2.0 (“C” average).

The 90 credits must include the following:

**Core Skills** 15 credits

a. Communication Skills 10 credits
   - ENGL& 101
   - ENGL& 102
   - ENGL& 235

b. Quantitative Skills 5 credits

**Humanities** 15 credits

Select from at least three of the disciplines listed on the distribution list. No more than 5 credits in foreign language at the 100 level may apply.

**Social Sciences** 15 credits

Select from at least three disciplines listed on the distribution list.

**Natural Sciences** 15 credits

Select from at least three disciplines on the distribution list.

Include at least one laboratory course.

**Health and Fitness** 3 credits

Selected from either discipline listed on the distribution list.

**Diversity** 3 credits

A 3 to 5 credit course listed as a Diversity (D) course. Diversity courses may carry another distribution designation that can be counted toward both distribution requirements.

**Academic Electives** 27 credits

A minimum of 27 elective credits are required. Elective courses may be selected to satisfy major emphasis requirements (see program summaries section), or to satisfy department requirements of the college/university you have chosen for transfer. If desired, you may include up to a maximum...
of 15 credits from courses numbered 100 and above that are not included on the ICRC approved electives list. A minimum of three (3) PE credits may be included in the AA degree.

**Associate in Science Degree**

The Associate in Science degree represents attainments generally required by four-year colleges and universities for pre-professional programs in scientific disciplines. The need for early concentration on coursework in the chosen scientific major diminishes the general educational experience demonstrated by the Associate in Arts degree.

By working with an advisor in the completion of one of the two Associate in Science tracks, you can transfer to one of the Washington state baccalaureate institutions with reasonable assurance that you have completed all or most of the prerequisite courses for the targeted science major.

**Degree requirements:**

1. A minimum of 90 credits is required for the degree.
2. A minimum grade point average (GPA) of 2.0 (“C” average) is required for the degree.
3. Students completing this Associate in Science will receive the same priority consideration for admission to most Washington state baccalaureate institutions as they would for completing the direct transfer Associate in Arts degree and will be given junior status by the receiving institution.
4. Additional general education requirements, cultural diversity requirements, and foreign language requirements, as required by the transfer institution, must be met prior to the completion of a baccalaureate degree.
5. Students are responsible for checking specific major requirements of baccalaureate institutions in the year prior to transferring.

Courses for programs of study fall into two tracks that are listed in the program section of this catalog. These programs are designed to match specific major requirements and also to meet the general distribution requirements listed below:

**Core Skills**

- Communication Skills 5 credits
  - ENGL& 101
- Quantitative Skills 10 credits
  - MATH& 151
  - MATH& 152

**Humanities & Social Sciences** 15 credits

Select from at least three disciplines listed on the distribution list with at least 5 credits from humanities (H) and 5 credits from social sciences (SS). The remaining 5 credits can be from either category.

**Health and Fitness** 3 credits

Select three (3) credits from the list of courses approved for health and fitness (HF) distribution.

**Degree requirements:**

- To qualify for this degree you must complete a minimum of 90 credits in courses numbered 100 or above, with a cumulative grade point average (GPA) of at least 3.0 (“B” average).
- The 90 credits must include the following:
  - Diversity 3-5 credits
    - A 3 to 5 credit course listed as a Diversity (D) course. Diversity courses may carry another distribution designation that can be counted toward both distribution requirements.
  - Track I - Biological Sciences, Environmental/Resource Sciences, Chemistry, Geology, Earth Science
    - Core Requirements: 46-54 credits
      - CHEM& 161, 162, 163
      - MATH& 146 or MATH& 163
      - BIOL& 221, 222, 223 or PHYS& 221, 222, 223
      - Additional requirements: 10 – 18 science credits from courses normally taken by science majors, preferably in a 2 or 3 quarter sequence (biology majors should select physics or organic chemistry).
  - Remaining Credits: 3–11 credits
  - Track II - Atmospheric Science, Computer Science, Engineering, Physics
    - Core Requirements: 30 credits
      - PHYS& 221, 222, 223
      - CHEM& 161
      - Computer programming (4 credits minimum)
      - MATH& 163 or MATH& 146
    - Electives up to a maximum of 15 credits from courses numbered 100 or above that are not included on the ICRC approved electives list should be planned with the help of an advisor, based on the requirements of the specific discipline at the baccalaureate institution you wish to attend and using the programs listed later in this catalog.
    - Remaining Credits: 27 credits
  - Electives up to a maximum of 15 credits from courses numbered 100 or above that are not included on the ICRC approved electives list should be planned with the help of an advisor, based on the requirements of the specific discipline at the baccalaureate institution you wish to attend and using the programs listed later in this catalog.

**Associate in Liberal Arts Degree**

The Associate in Liberal Arts degree provides a broad background of knowledge rather than a course of study narrowly focused on preparation for a specific field of employment or profession. This degree develops reasoning, judgment, and expression abilities that are desirable no matter what you do in life. When you have earned the ALA degree, you may transfer to a baccalaureate institution within the state of Washington with assurance that you have satisfied all or most of the basic requirements (General University Requirements). This means, generally, that the ALA transfer student can begin work on their specialized, major course work as soon as they transfer.

**Degree requirements:**

- To qualify for this degree you must complete a minimum of 90 credits in courses numbered 100 or above, with a cumulative grade point average (GPA) of at least 3.0 (“B” average).
- The 90 credits must include the following:
  - Humanities 20 credits
    - A minimum of twenty (20) credits in humanities, including one course from at least three of these subjects: Art, Drama, Literature, Music, Philosophy. No more than five (5) credits from performance/skill courses. Five (5) credits of Foreign Language count toward Humanities. Select courses from the distribution list.
  - Social Sciences 20 credits
    - At least twenty (20) credits in social sciences, including one course from at least three of these subjects: Anthropology, Sociology, Psychology, History, Economics, Political Science.
  - Diversity 3-5 credits
    - A 3 to 5 credit course listed as a Diversity (D) course. Diversity courses may carry another distribution designation that can be counted toward both distribution requirements.
  - Major Related Programs
    - In addition to the transfer degrees listed above, the college offers degrees derived from both the Associate in Arts degree (AA) and the Associate in Science degree (AS). These degrees have been developed through collaboration between the State Board for Community and Technical Colleges (SBCTC) and the public colleges and universities in Washington state.
    - These degrees may have specific requirements beyond those required by the AA or AS as listed in the program plan.
Limited Transfer Degrees

Associate in Applied Science-Transfer

The Associate in Applied Science-Transfer degree is for transfer to schools offering baccalaureates in applied science. This degree combines the technical focus of the Associate in Technical Arts with a minimum of 20 credits of transferable academic courses.

This degree is not generally transferable. If transfer is your intent you should work with your advisor to make sure this is the degree for you.

Degree Requirements:

To qualify for the degree you must complete a minimum of 90 credits in subjects numbered 100 or above. You must also achieve a grade point average (GPA) of at least a 2.0 (“C” average).

Your courses must be selected in accordance with a college programs of study. Check with an advisor for a current list of programs. These programs are designed to incorporate specific and major requirements as well as meet general education and related instruction requirements.

The program must include:

a. English Communications
   ENGL 101 5 credits
b. Quantitative Reasoning
   (see distribution list) 5 credits
c. Humanities & Social Science
   (see distribution list) 10 credits
d. Health & Fitness
   (see distribution list) 3 credits

Workforce Degrees

Associate in Technical Arts Degree & Associate in Applied Science Degree

If your plan is to prepare to compete for employment in an occupational field, you may choose to earn an Associate in Technical Arts or an Associate in Applied Science degree. Since this degree concentrates on a particular trade or skill, it does not have broad general education requirements.

Whether a technical course will transfer or count as a degree requirement for a baccalaureate degree is at the discretion of the transfer college or university.

Degree requirements:

To qualify for the Associate in Technical Arts or Associate in Applied Science degree, you must complete a minimum of 90 credits in subjects numbered 100 or above. You must also achieve a grade point average (GPA) of at least a 2.0 (“C” average).

Your courses must be selected in accordance with one of the programs of study outlined in the program section of this catalog. The programs of study are designed to incorporate specific major requirements and also to meet the general distribution requirements listed below.

The 90 credits must include the following related instruction minimum requirements:

a. Written Communication Skills 3 credits
b. Health and Fitness 3 credits
   from list of approved health or PE courses in Health and Fitness distribution (HF)
c. Computation Skills 5 credits
d. Human Relations 5 credits

Occupational Major

Programs vary in total credits necessary to obtain a degree, although the minimum requirement is 90 credits. Core program credits are designed to meet occupational skills standards.

Associate in General Studies Degree

The Associate in General Studies degree is designed for those students who do not plan to transfer to a four-year college or pursue an Associate in Technical Arts degree in a specific occupational area. It is a terminal degree with emphasis on improvement of skills, general knowledge in the areas of humanities, natural science and social science, and some specialty of your choice. This degree is designed to prepare the student to lead a full and useful life.

To qualify for the Associate in General Studies degree you must complete 90 credits in courses numbered 100 or above, with a cumulative grade point average of at least a 2.0 (“C” average).

The 90 credits must include the following:

- Forty-three (43) credits taken in communication skills, humanities, math/natural sciences, social sciences, and health and fitness consisting of the following:
  - A minimum of ten (10) credits in communication skills ENGL 101, ENGL 102, or ENGL 235.
  - A minimum of ten (10) credits in each of the three general areas of knowledge (humanities, math/natural sciences, and social sciences). See the AA distribution list.
  - Three (3) credits from the list of courses approved for Health and Fitness distribution.
  - An additional 47 credits which you choose to satisfy your own educational plans or interests. Your choices can be occupational, personal enjoyment, physical education, or academic courses.

Certificates and Programs

Certificates of Completion

You may be awarded a certificate of completion by successfully completing a set group of courses from a professional/technical program. These certificates require significantly fewer credits than a certificate of proficiency. The courses tend to concentrate on one set of skills.

The U.S. Education Department’s Gainful Employment regulations require disclosure of certain program information to students and prospective students. For additional information and updates, please visit http://www.centrall.edu/academics/GE-disclosure.html.

Certificates of Proficiency

You may earn a Certificate of Proficiency by completing a professional/technical program which requires a minimum of 45 credits, includes related instruction, and a grade point average (GPA) of at least 2.0 (“C”). Certificates of Proficiency are awarded in these programs:

- Accounting Clerk
- Automation Maintenance Technician
- Child Care Specialist
- Crime Scene Investigation
- Practical Nursing
- Medical Office Assistant
- Office Assistant
- Welding

High School Completion Program

The High School Completion program is offered to students 21 and older, or enrolled in the TEEN Program. For more information contact the TEEN Program Office at 360-736-9397, ext. 341.

GED High School Equivalency

As an official GED (General Equivalent Development) testing center, Centralia College administers GED tests under contract with the GED Testing Service of the American Council of Education. The GED consists of five separate tests covering the areas of writing, social studies, sciences, literature and mathematics. The GED measures the academic ability of adults who have not completed a formal high school education.

Students must be at least 16 years old to participate in the program. Students between 16 and 19 years of age must have on file at Centralia College a “Request for Approval to Test for Certificate on Educational Competence” form, (SBCTC/GED 1000) signed by a local school official, or if home schooled, a notarized release form (SBCTC/GED 2000) signed by the parent before beginning the program. These forms may be obtained from the high school counselor from the last high school the student attended, or from the district in which the student resides. Students 19 and over do not need these forms.
The program maintains an open enrollment policy, and all classes and pre-testing for readiness and/or class placement are available at the Phoenix Center in the Library Building on the Centralia College campus, Centralia College East, and selected locations. Students who are testing for their GED at Centralia College must:

1. Make an appointment for testing.
2. Provide picture identification and a Social Security number.
3. Provide "Request for Approval to Test for Certificate" form SBCTC/GED 1000 obtained from and completed by a high school counselor or administrator if under 19.

For additional information regarding age limits, fees, testing times and preparation, contact the Phoenix Center (360) 736-9391, ext. 216 or Centralia College East ext. 380.

**Adult Basic Education**

The Adult Basic Education program is for students who have not completed high school or whose skill level in reading, writing, or mathematics is 8th grade level or below.

Preparation for GED testing, as well as basic computer applications, are included. Students under 19 years of age must provide a high school release form from the school or whose skill level in reading, writing, or mathematics is 8th grade level or below.

Students under 19 years of age must provide a high school release form from the school or whose skill level in reading, writing, or mathematics is 8th grade level or below. Preparation for GED testing, as well as basic computer applications, are included.

Students under 19 years of age must provide a high school release form from the school or whose skill level in reading, writing, or mathematics is 8th grade level or below.

**Distribution Area Outcomes & Courses**

In this catalog, courses that satisfy distribution requirements are identified by a capital letter at the end of the course description. Use the following guide to identify the distribution categories:

- C = Communication
- H = Humanities
- M = Mathematics/Quantitative Skills
- SS = Social Science
- S = Science
- HF = Health and Fitness
- D = Diversity

Distribution Requirements (also known as General University Requirements or GURs) are part of each transfer degree. Courses that fulfill Distribution Requirements meet specific criteria listed below:

**Core Requirements**

**Communication Skills (C)**

1. The course carries three or more credits.
2. The course objectives address three or more of the following outcomes. Upon successful completion of designated courses, students will have demonstrated the ability to:
   - Recognize structures and modes of development that are used to inform, persuade, or entertain (Themes: Communication & Responsibility).
   - Utilize technology as a tool in the application of mathematical concepts. (Theme: Resourcefulness)

**Math (M)**

1. The prerequisite for the course is Algebra II (MATH 099 or equivalent).
2. The course objectives address the following outcomes. Upon successful completion of designated courses, students will have demonstrated the ability to:
   - Recognize and then apply mathematical concepts to personal, professional and scientific situations. (Theme: Reasoning)
   - Communicate ideas through mathematics graphically, symbolically, numerically and verbally with clarity and accuracy. (Theme: Written, Oral, and Visual Communication)

**ENGL**

&101 English Composition I 5
&102 Composition II 5
&235 Technical Writing 5

**Quantitative Skills (M)**

1. The prerequisite for the course is Algebra II (MATH 099 or equivalent).
2. The course objectives address the following outcomes. Upon successful completion of designated courses, students will have demonstrated the ability to:
   - Utilize technology as a tool in the application of mathematical concepts. (Theme: Resourcefulness)

**MATH**

&107 Math in Society 5
115 College Algebra 5
118 Linear Algebra 5
&131 Math for Elementary Education I 5
&132 Math for Elementary Education II 5
135 Precalculus Refresher 5
&141 Precalculus I 5
&142 Precalculus II 5
&146 Introduction to Stats 5
150 Survey of Calculus 5
&151 Calculus I 5
&152 Calculus II 5
228 Discrete Mathematics 5

**Other Requirements**

**Humanities (H)**

1. The course carries three or more credits.
2. The course objectives address three or more of the following outcomes. Upon successful completion of designated courses, students will have demonstrated the ability to:
   - Demonstrate an appreciation of the manner in which language, philosophy, and/or the arts influence and interact with the cultures in which they exist (Themes: Reasoning & Exploration).
   - Assess the significance and value of the record of human creativity (Themes: Reasoning & Communication).

**ART**

&100 Art Appreciation 5
102* Drawing I 5
160* Intro to Fibers 5
170* Black & White Photography 5
174* Digital Photography 4
200 Art History: Ancient 5
201 Art History: 15th-17th C 5
202 Art History: 18th-20th C 5
203 History of American Art 5

**CHIN**

&121** Chinese I 5
&122** Chinese II 5
&123** Chinese III 5

**DRMA**

&101 Intro to Theater 5
105 Theater History 3
107* Beginning Acting 5
108* Intermediate Acting 5
115* Dramatic Performance 3
120 Introduction to Play writing 5
201* Advanced Acting 5

**ENGL**

&111 Introduction to Literature 5
&113 Introduction to Poetry 5
&114 Intro to Dramatic Literature 5
160 Women’s Literature 5
180 Short Fiction 5
204 Introduction to Shakespeare 5
208 Intro to Creative Writing 5
209 Hero's Quest: Survey of English Literature, 7th Century-1616 5
210 Crisis of Faith: Survey of English Literature, 1616-1798 5
211 Romance and Revolution: Survey of English Literature, 1798-Present 5
220 American Drama 3
233 Literature for Children & Adolescents 5
&244 American Literature 5
249 The Great American Novel 5
260 Non-Western World Literature 5

**FRCH**

&121** French I 5
&122** French II 5
&123** French III 5

**HUM**

110 Ethics and Cultural Values 5
&116 Intro to Humanities I 5
&117 Intro to Humanities II 5
&118 Intro to Humanities III 5
270 Survey of Films Studies 5
### Social Science (SS)
1. The course carries three or more credits.
2. The course objectives address all of the following outcomes. Upon successful completion of designated courses, students will have demonstrated the ability to:
   - Describe social, political, economic, linguistic, cultural, historical, and religious factors that explain human behavior and mental processes at individual and group levels (Theme: Reasoning, Resourcefulness & Exploration).
   - Identify and apply terminology, concepts, theories, data, and principles used by the various social science disciplines (Theme: Reasoning & Exploration).
   - Develop an informed sense of self that demonstrates tolerance and respect for diverse perspectives (Themes: Exploration, Resourcefulness & Responsibility).
   - Demonstrate critical thinking skills through formulating questions, analyzing data, and distinguishing between objective fact and subjective interpretation (Theme: Reasoning).

### Natural Science (S)
1. The course is broad in scope, covering major concepts.
2. The course objectives address all of the following outcomes. Upon successful completion of designated courses, students will have demonstrated the ability to:
   - Communicate key scientific concepts in oral, written, and/or visual format using the language of science. (Theme: Communication)
   - Apply the scientific method to solve problems, conduct experiments, evaluate data, and test hypotheses. (Themes: Reasoning, Resourcefulness & Communication)
   - Critically evaluate scientific information and its sources. (Themes: Exploration, Responsibility & Reasoning)

### Health and Fitness (HF)
The course provides the student with knowledge and skills that enable them to achieve and maintain optimal health over a lifetime.

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<td>170</td>
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<td>History of American Music</td>
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<td>Principles of Speech Communications</td>
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<td>The Solar System</td>
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<td>126</td>
<td>Stars &amp; Galaxies</td>
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<td>127</td>
<td>The Solar System &amp; Universe</td>
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<td>&amp;222</td>
<td>Majors Cell/Molecular w/lab</td>
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<td>&amp;223</td>
<td>Majors Organismal Phys w/lab</td>
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<td>Adv Topics Human A &amp; P w/lab</td>
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<td>113</td>
<td>Plant Identification w/lab</td>
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<td>Dendrology-Trees In Our Env w/lab</td>
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<td>Natural Hazards &amp; Catastrophe</td>
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<td>170</td>
<td>Intro to Natural Resources</td>
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### Degrees/Certificates
- **Social Science (SS)**
- **Natural Science (S)**
- **Health and Fitness (HF)**
Degrees/Certificates

10

P E (No more than 3 credits may be taken as academic electives)

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<th>Credits</th>
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<td>Physical Fitness</td>
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<td>120</td>
<td>Lifestyle Management &amp; Exercise</td>
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<td>Weight Training</td>
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<td>125</td>
<td>Free Weights</td>
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<td>Tai Chi Basics</td>
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<td>Beginning Tae Kwon Do</td>
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<td>269</td>
<td>Advanced Cardio Kick boxing</td>
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Diversity (D)
Courses designated with a "(D)" focus on experiences of people traditionally underrepresented in American history. At least one D-course is required for an Associate Degree.

1. The course carries three to five credits.
2. The purpose of a diversity requirement is to prepare students to critically understand, appreciate, and respect culturally diverse thought and behavior.
3. Courses that address cultural diversity provide a focus on the historical and/or contemporary experiences and contributions of people from diverse backgrounds.
4. A course must have as its central focus or theme (not as a secondary interest) a topic pertaining to non-western culture or to excluded groups within western culture and engage students in critical inquiry about issues related to the complex interactions of cultural differences and commonalities.
5. Diversity courses may also meet other Distribution Requirements.

ANTH
&100 Survey of Anthropology 5
&206 Cultural Anthropology 5
&210 Indians of North America 5
225 Cultural & Ethnic Pluralism 5
235 Myth, Ritual, and Magic 5

ART
200 Art History: Ancient 5
201 Art History: 15th-17th C 5
202 Art History: 18th-20th C 5

CHIN
&121 Chinese I 5

ENGL
255 Women's Literature 5
260 Non-Western World Literature 5

GEOG
&200 Human Geography 5

HLTH
120 Women's Health Issues 3

HUM
110 Ethics and Cultural Values 5

JOUR
170 Racism, Sexism & Media 3

MUSC
139 Music of the World 5
140 History of American Popular Music 5
264 Music History I 5

POLs
&204 Comparative Government 5

SOC
225 Cultural & Ethnic Pluralism 5

SPEE
250 Intercultural Communication 5

InterCollege Relations Commission (ICRC) Approved Academic Electives

Accounting 201, 202, 203
Anthropology all courses numbered 100 and above
American Sign Language 121, 122, 123
Art 100, 102, 111, 130, 160, 170, 174, 200, 201, 202, 203, 210, 211
Astronomy 125, 126, 127, 128
Biology all courses numbered 100 and above
Botany all courses numbered 100 and above
Business Administration 101, 201
Chemistry all courses numbered 100 and above
Chinese all courses numbered 100 and above
Computer Science Technology 100, 215, 224
Criminal Justice 101, 104, 105, 106, 110, 240
Drama all courses numbered 101 and above
Early Childhood Education 105
Economics 201, 202
Education 115, 201
English all courses numbered 101 and above
Environmental Science all courses numbered 100 and above
French all courses numbered 100 and above
General Engineering all courses numbered 111 and above
Geography all courses numbered 100 and above
Geology all courses numbered 100 and above
Health 120, 130, 140, 145
History all courses numbered 100 and above
Humanities all courses numbered 100 and above
Journalism 160, 170, 180
Mathematics all courses numbered 107 and above except 110 and 116
Media Studies 125, 220, 225, 230, 260
Music all courses numbered 100 and above
Nutrition 101, 202, 203
Oceanography 101
Philosophy all courses numbered 100 and above
Physical Education all courses numbered 100 and above

(3 credits maximum on P E activity courses)

Physics all courses numbered 100 and above
Political Science all courses numbered 100 and above
Psychology all courses numbered 100 and above

Science 103, 104, 115
Sociology all courses numbered 100 and above
Spanish all courses numbered 100 and above
Speech all courses numbered 100 and above
Programs of Study

These Educational Plans are intended as a guide for students who wish to emphasize a specific area of study. It is not a guarantee that the courses listed in the plan will be available in the sequence suggested. In some instances, due to low enrollment, some courses may not be offered at all.

Students should consult with their advisor for recommended electives. It is strongly recommended that students intending to transfer to a four-year college or university consult with the intended transfer institution for any prerequisites or additional requirements.

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**Accounting**

**Emphasis:** Accounting/Finance

**Degree:** Associate in Technical Arts

PURPOSE: The ATA program in Accounting provides students with necessary skills to compete for entry-level accounting positions in private industry, state, and local government, and public accounting firms.

PROGRAM OUTCOMES: Students who successfully complete this program will have demonstrated the ability to:

- Perform bookkeeping tasks in the service of the business public.
- Assist in the production of financial reporting in accordance with generally accepted accounting principles (GAAP).
- Assist in the conduct of audits in accordance with generally accepted audit standards (GAAS).
- Demonstrate familiarity with the application of computer accounting information systems software (AIS).
- Assist in the determination and disposition of tax liability as it applies to individuals and business entities.
- Prepare industry standard written and oral communications to include the use of Microsoft Word and Excel.
- Successfully complete qualification examinations for either Certified Professional Bookkeeper (CPB)

**Suggested Order of Classes**

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<th>Fall Quarter, First Year</th>
<th>Credits</th>
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<td>ACCT 201 Principles of Accounting I</td>
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<td>BTEC 210 Word</td>
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<td>HR 110 Human Relations</td>
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</table>

<table>
<thead>
<tr>
<th>Winter Quarter, First Year</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 202 Principles of Accounting II</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 214 Excel I</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 221 Business Communications</td>
<td>5</td>
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<tr>
<td><strong>Total</strong></td>
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<tbody>
<tr>
<td>ACCT 203 Principles of Accounting III</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 220 Accounting Information Systems</td>
<td>5</td>
</tr>
<tr>
<td>BUS 275 Principles of Mgmt</td>
<td>5</td>
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**Fall Quarter, Second Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ACCT 260 Individual Income Tax</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 220 Accounting Information Systems</td>
<td>5</td>
</tr>
<tr>
<td>BUS 215 Principles of Finance</td>
<td>5</td>
</tr>
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**Winter Quarter, Second Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 240 Business Entity Tax</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 270 Payroll Accounting</td>
<td>5</td>
</tr>
<tr>
<td>BUS &amp; 201 Business Law</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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**Spring Quarter, Second Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 220 Payroll Accounting</td>
<td>3</td>
</tr>
<tr>
<td>H R 110 Human Relations-Workplace</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

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**Acting**

See Dramatic Arts

---

**Anthropology**

**Emphasis:** Anthropology

**Degree:** Associate in Arts

PURPOSE: The Associate of Arts Degree with an emphasis in anthropology is for students wishing to transfer to a four-year college or university. A student acquiring the Associate in Arts degree in anthropology will achieve an understanding of the diversity of humans and human cultures past and present around our globe.

While preparing the student for further study and eventual employment in the field of anthropology, this educational plan also is relevant for students preparing for a broad range of jobs in both government and international agencies that focus on cross-cultural issues and involve working with people from different cultural backgrounds. These jobs, in addition to work in international and government agencies, might include working in agricultural development and educational reform or as a consultant, planner, market analyst, survey researcher, forensic scientist, or refugee coordinator.

**Suggested Order of Classes**

<table>
<thead>
<tr>
<th>Fall Quarter, First Year</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH &amp; 100 Survey of Anthropology</td>
<td>5</td>
</tr>
<tr>
<td>ENGL &amp; 101 English Composition I</td>
<td>5</td>
</tr>
<tr>
<td>Humanities Distribution*</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Winter Quarter, First Year</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH &amp; 210 Indians of North America</td>
<td>5</td>
</tr>
<tr>
<td>ENGL &amp; 102 Composition II</td>
<td>5</td>
</tr>
<tr>
<td>Humanities Distribution*</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>
Spring Quarter, First Year  
Credits  
ANTH  235 Myth, Ritual and Magic  5  
Quantitative Skills Distribution**  5  
Science Distribution  5  
T5  

Fall Quarter, Second Year  
Credits  
ANTH&  206 Cultural Anthropology  5  
Science Distribution  5  
Social Science Distribution ***  5  
T5  

Winter Quarter, Second Year  
Credits  
Electives  7-10  
Health & Fitness Distribution  3  
Social Science Distribution ***  5  
T5-T8  

Spring Quarter, Second Year  
Credits  
ANTH  225 Cultural & Ethnic Pluralism in Contemporary Society  5  
Elective  5  
Humanities Distribution  5  
T5  
ANTH  260 or ANTH  290 the Anthropology Fieldtrip is strongly recommended.  
*A language is strongly recommended.  
**MATH&  146 Introduction to Stats is recommended.  
***HIST&  116 Western Civilization I is recommended for Anthropology students desiring to specialize in Archaeology.  
Anthropology majors are encouraged to develop a broad base in the social sciences to include PSYC&  100 General Psychology or HIST&  116 Western Civilization I.  

Art  
See Fine Arts or Graphic Design  

Astronomy  
See Earth Science  

Biology  
Emphasis:  
Biology  
Botany  
Ecology  
Zoology  

Degree: Associate in Biology-DTA/MRP  
PURPOSE: This program is for students who wish to complete a bachelor's degree in such disciplines as general or molecular biology, zoology, microbiology, genetics, entomology, botany, horticulture, soil science, phycology, ecology, marine biology, fisheries biology, or wildlife management. This program assumes that a student is prepared to start college-level math and English courses. Students who are not prepared to begin at this level may require additional quarters.  

To ensure optimal course selection, plan your program of study with your advisor and with the specific requirements of your likely transfer institution.  

Suggested Order of Classes  

Fall Quarter, First Year  
Credits  
CHEM&  161 General Chemistry w/lab I  6  
ENGL&  101 English Composition I  5  
Elective*  5  
T6  

Winter Quarter, First Year  
Credits  
CHEM&  162 General Chemistry w/lab II  6  
ENGL&  102 Composition II  5  
OR  
ENGL&  235 Technical Writing  5  
Elective*  5  
T6  

Spring Quarter, First Year  
Credits  
CHEM&  163 General Chemistry w/lab III  6  
MATH&  151 Calculus I  5  
Humanities Distribution **  OR  
Social Science Distribution **  5  
T6  

Fall Quarter, Second Year  
Credits  
BIOL&  221 Majors Ecology/Evolution  5  
Humanities Distribution  5  
Elective**  5  
T5  

Winter Quarter, Second Year  
Credits  
BIOL&  222 Majors Cell/Molecular  5  
Social Science Distribution  5  
Elective**  5  
Health & Fitness Distribution  3  
T8  

Spring Quarter, Second Year  
Credits  
BIOL&  223 Majors Organismal Phys  5  
Humanities Distribution  5  
Social Science Distribution  5  
T5  

**Students requiring Precalculus I (MATH 141) or Precalculus II (MATH & 142) should do so now. These students would use one of the second year electives for a third social science of humanities distribution course. Other students should satisfy a social science or humanities elective.  
**Recommended electives include a full year sequence of organic chemistry, or additional math classes at the pre-calculus level, statistics, or additional calculus.  

Emphasis:  
Animal Biology (Zoology)/Plant Biology (Botany)  

Degree:  
Associate in Science  
PURPOSE: This program is for students who wish to complete a bachelor's degree in such disciplines as general or molecular biology, zoology, microbiology, genetics, entomology, botany, horticulture, soil science, phycology, ecology, marine science, fisheries biology, or wildlife management.  

If you are not well prepared in high school mathematics and science, you should plan, with your advisor, a three-year program at Centralia College in preparation for transfer to a four-year college or university.  
The main emphasis in the first year at Centralia should be on strengthening your mathematics, basic sciences, communications, and reading skills.  

To ensure optimal course selection, plan your program of study with your advisor.  

Suggested Order of Classes  

Fall Quarter, First Year  
Credits  
BIOL&  221 Majors Ecology/Evolution  5  
CHEM&  161 General Chemistry w/lab I  6  
ENGL&  101 English Composition I  5  
T6  

Winter Quarter, First Year  
Credits  
BIOL&  222 Majors Cell/Molecular  5  
CHEM&  162 General Chemistry w/lab II  6  
MATH&  151 Calculus I  5  
T6  

Spring Quarter, First Year  
Credits  
BIOL&  223 Majors Organismal Phys  5  
CHEM&  163 General Chemistry w/lab III  6  
MATH&  152 Calculus II  5  
T6  

Fall Quarter, Second Year  
Credits  
BIOL&  221 Majors Ecology/Evolution  5  
Humanities Distribution  5  
Elective**  5  
T5  

Winter Quarter, Second Year  
Credits  
BIOL&  222 Majors Cell/Molecular  5  
Social Science Distribution  5  
Elective**  5  
Health & Fitness Distribution  3  
T8  

Spring Quarter, Second Year  
Credits  
BIOL&  223 Majors Organismal Phys  5  
Humanities Distribution  5  
T5-T6  

Science electives:  
BIOL&  241, 242, 243 Human A & P w/lab series I-III  
CHEM&  261, 262, 263 Organic Chemistry w/lab I-III;  
PHYS&  221, 222, 223; Engineering Physics I-III  
*Biology majors should select Organic Chemistry or Physics for second year sequence.
**Business Administration**

**Emphasis:** Business Administration

**Degree:** Associate in Applied Science

PURPOSE: The Associate in Applied Science degree prepares students with a broad business background as well as provide specialized training in office skills. Students are accepted into the program each quarter, those who start in September find it easier to schedule their courses in the suggested sequences. Prerequisites include: demonstrated proficiency in math, reading, English, and basic keyboarding skills. After completing the selected program, students will be prepared for entry level employment as office assistants and receptionists, in general offices, or medical offices.

### Suggested Order of Classes

**Fall Quarter, First Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 101 Intro to Business</td>
<td>5</td>
</tr>
<tr>
<td>MATH 146 Introduction to Stats</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 101 English Composition I</td>
<td>5</td>
</tr>
<tr>
<td>Science Distribution**</td>
<td>2</td>
</tr>
<tr>
<td>Health &amp; Fitness Distribution</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
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**Winter Quarter, First Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BUS 121 Business Math</td>
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<tr>
<td>BUS 214 Excel I</td>
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</tr>
<tr>
<td>HLTH 145 Safety and Fitness</td>
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**Spring Quarter, First Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 215 Principles of Finance</td>
<td>5</td>
</tr>
<tr>
<td>BUS 220 Principles of Marketing</td>
<td>5</td>
</tr>
<tr>
<td>HR 110 Human Relations-Workplace</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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**Fall Quarter, Second Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BUS 232 Entrepreneurship</td>
<td>5</td>
</tr>
<tr>
<td>BUS 275 Principles of Management***</td>
<td>5</td>
</tr>
<tr>
<td>ECON 201 Microeconomics</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
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</table>

**Winter Quarter, Second Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>

**Spring Quarter, Second Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
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<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

*Students going into BAS-AM take MATH 146 Introduction to Stats.

**Students going into BAS-AM take ENGL 101.

***Students going into BAS-AM take Science Distribution course.

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**Business Office Technology**

**Emphasis:** Administrative Assistant

**Medical Administrative Assistant**

**Degree:** Associate in Technical Arts

PURPOSE: These degree programs prepare students with a broad business background, as well as provide specialized training in office skills. While students are accepted into the program each quarter, those who start in September find it easier to schedule their courses in the suggested sequences. Prerequisites include: demonstrated proficiency in math, reading, English, and basic keyboarding skills. After completing the selected program, students will be prepared for entry level employment as office assistants and receptionists, in general offices, or medical offices.

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**Suggested Order of Classes**

**Fall Quarter, First Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 101 Principles of Accounting I</td>
<td>5</td>
</tr>
<tr>
<td>BUS 101 Intro to Business</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 210 Word I</td>
<td>5</td>
</tr>
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**Winter Quarter, First Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ACCT 101 Principles of Accounting II</td>
<td>5</td>
</tr>
<tr>
<td>BUS 101 Intro to Business</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 210 Word I</td>
<td>5</td>
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**Spring Quarter, First Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ACCT 101 Principles of Accounting III</td>
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</tr>
<tr>
<td>BUS 101 Intro to Business</td>
<td>5</td>
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<tr>
<td>BTEC 210 Word I</td>
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**Fall Quarter, Second Year**

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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACCT 101 Principles of Accounting II</td>
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<tr>
<td>BUS 101 Intro to Business</td>
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</tr>
<tr>
<td>BTEC 210 Word I</td>
<td>5</td>
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<tr>
<td><strong>Total</strong></td>
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**Winter Quarter, Second Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 101 Principles of Accounting III</td>
<td>5</td>
</tr>
<tr>
<td>BUS 101 Intro to Business</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 210 Word I</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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**Spring Quarter, Second Year**

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 101 Principles of Accounting III</td>
<td>5</td>
</tr>
<tr>
<td>BUS 101 Intro to Business</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 210 Word I</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>
demonstrated the ability to:

- Possess a basic understanding of medical office procedures using medical charts and records, electronic medical records, receiving visitors, scheduling appointments, and confidentiality in a medical office.
- Develop effective presentations using presentation software.
- Develop effective communications skills using electronic software.

PROGRAM OUTCOMES: Students who successfully complete this program will have demonstrated the ability to:

- Demonstrate human relations skills and professional behavior necessary for successful job performance.
- Operate a 10-key electronic calculator by touch.
- Demonstrate the ability to relate effectively with others in the classroom.
- Organize data using business math and practical accounting.
- Prepare documents using advanced features in word processing software.
- Format basic business letters, memos, reports, tables, and newsletters to office standards.
- Solve basic business math problems.
- Organize data using business math and practical accounting.
- Analyze and calculate data using spreadsheet software.
- Enter and organize data using database software.
- Develop effective communications skills using electronic software.
- Develop effective presentations using presentation software.
- Develop effective communications skills using electronic software.

PROGRAM OUTCOMES: Students who successfully complete this program will have demonstrated the ability to:

- Demonstrate human relations skills and professional behavior necessary for successful job performance.
- Operate a 10-key electronic calculator by touch.
- Demonstrate the ability to relate effectively with others in the classroom.
- Solve basic business math problems.
- Organize data using business math and practical accounting.
- Prepare documents using advanced features in word processing software.
- Format basic business letters, memos, reports, tables, and newsletters to office standards.
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- Demonstrate the ability to relate effectively with others in the classroom.
- Solve basic business math problems.
- Organize data using business math and practical accounting.
- Prepare documents using advanced features in word processing software.
- Format basic business letters, memos, reports, tables, and newsletters to office standards.
- Develop effective communications skills using electronic software.
- Develop effective presentations using presentation software.
- Develop effective communications skills using electronic software.

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- Demonstrate human relations skills and professional behavior necessary for successful job performance.
- Operate a 10-key electronic calculator by touch.
- Demonstrate the ability to relate effectively with others in the classroom.
- Solve basic business math problems.
- Organize data using business math and practical accounting.
- Prepare documents using advanced features in word processing software.
- Format basic business letters, memos, reports, tables, and newsletters to office standards.
- Develop effective communications skills using electronic software.
- Develop effective presentations using presentation software.
- Develop effective communications skills using electronic software.

PROGRAM OUTCOMES: Students who successfully complete this program will have demonstrated the ability to:

- Demonstrate human relations skills and professional behavior necessary for successful job performance.
- Operate a 10-key electronic calculator by touch.
- Demonstrate the ability to relate effectively with others in the classroom.
- Solve basic business math problems.
- Organize data using business math and practical accounting.
- Prepare documents using advanced features in word processing software.
- Format basic business letters, memos, reports, tables, and newsletters to office standards.
- Develop effective communications skills using electronic software.
- Develop effective presentations using presentation software.
- Develop effective communications skills using electronic software.

PROGRAM OUTCOMES: Students who successfully complete this program will have demonstrated the ability to:

- Demonstrate human relations skills and professional behavior necessary for successful job performance.
- Operate a 10-key electronic calculator by touch.
- Demonstrate the ability to relate effectively with others in the classroom.
- Solve basic business math problems.
- Organize data using business math and practical accounting.
- Prepare documents using advanced features in word processing software.
- Format basic business letters, memos, reports, tables, and newsletters to office standards.
- Develop effective communications skills using electronic software.
- Develop effective presentations using presentation software.
- Develop effective communications skills using electronic software.

PROGRAM OUTCOMES: Students who successfully complete this program will have demonstrated the ability to:

- Demonstrate human relations skills and professional behavior necessary for successful job performance.
- Operate a 10-key electronic calculator by touch.
- Demonstrate the ability to relate effectively with others in the classroom.
- Solve basic business math problems.
- Organize data using business math and practical accounting.
- Prepare documents using advanced features in word processing software.
- Format basic business letters, memos, reports, tables, and newsletters to office standards.
- Develop effective communications skills using electronic software.
- Develop effective presentations using presentation software.
- Develop effective communications skills using electronic software.

PROGRAM OUTCOMES: Students who successfully complete this program will have demonstrated the ability to:

- Demonstrate human relations skills and professional behavior necessary for successful job performance.
- Operate a 10-key electronic calculator by touch.
- Demonstrate the ability to relate effectively with others in the classroom.
- Solve basic business math problems.
- Organize data using business math and practical accounting.
- Prepare documents using advanced features in word processing software.
- Format basic business letters, memos, reports, tables, and newsletters to office standards.
- Develop effective communications skills using electronic software.
- Develop effective presentations using presentation software.
- Develop effective communications skills using electronic software.
• Obtain a first aid and CPR certificate.
• Demonstrate an understanding of human biology.
• Write simple business letters and memos.
• Prepare a resume and letter of application.
• Transcribe medical documents from recorded dictation.
• Possess a basic understanding of medical office procedures using medical charts and records, electronic records, receiving visitors, scheduling appointments, and confidentiality in a medical office.
• Enter patient record information using electronic record software.

Suggested Order of Classes

<table>
<thead>
<tr>
<th>Fall Quarter</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTEC 107 Medical Records</td>
<td>3</td>
</tr>
<tr>
<td>BTEC 160 HIPPA</td>
<td>1</td>
</tr>
<tr>
<td>H R 110 Human Relations-Workplace</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 102 Skillbuilding I</td>
<td>3</td>
</tr>
<tr>
<td>MA 260 Medical Terminology</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Winter Quarter</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTEC 110 Business English</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 210 Word I</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 214 Excel I</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 233 Files Management</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 145 Safety &amp; Fitness</td>
<td>3</td>
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<table>
<thead>
<tr>
<th>Spring Quarter</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO&amp; 170 Human Biology</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 120 Applied Business Math</td>
<td>3</td>
</tr>
<tr>
<td>BTEC 261 Medical Office Procedures</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 266 Medical Law &amp; Ethics</td>
<td>3</td>
</tr>
</tbody>
</table>

Emphasis: Office Assistant
Degree: Certificate of Proficiency

PURPOSE: The Office Assistant certificate program prepares students for entry-level employment as office assistants. Prerequisites include: demonstrated proficiency in math, reading, English, and basic keyboarding skills.

PROGRAM OUTCOMES: Students who successfully complete this program will have demonstrated the ability to:

• Demonstrate the ability to keyboard with speed and accuracy.
• File correctly using alphabetic, numeric, geographic, and subject filing systems.
• Apply rules of grammar, punctuation, and spelling in written and oral communications.
• Prepare documents using advanced features in word processing software.
• Format basic business letters, memos, reports, tables, and newsletters to office standards.
• Solve basic business math problems.
• Operate a 10-key electronic calculator by touch.

• Analyze and calculate data using spreadsheet software.
• Demonstrate the ability to relate effectively with others in the classroom.
• Demonstrate human relations skills and professional behavior necessary for successful job performance.
• Develop effective presentations using presentation software.
• Organize data using business math and practical accounting.
• Possess a basic understanding of receiving office visitors, using the telephone, scheduling appointments, customer service, and confidentiality skills in an office.
• Develop effective communications skills using electronic software.

Suggested Order of Classes

<table>
<thead>
<tr>
<th>Fall Quarter</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 110 Practical Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>BTEC 102 Skillbuilding I</td>
<td>3</td>
</tr>
<tr>
<td>BTEC 110 Business English</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 210 Word I</td>
<td>5</td>
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<table>
<thead>
<tr>
<th>Winter Quarter</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ACCT 120 Practical Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>BTEC 205 Outlook</td>
<td>1</td>
</tr>
<tr>
<td>BTEC 214 Excel I</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 233 Filing</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 145 Safety &amp; Fitness</td>
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<table>
<thead>
<tr>
<th>Spring Quarter</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BTEC 120 Applied Business Math</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 220 Ten-Key Calculator</td>
<td>1</td>
</tr>
<tr>
<td>BTEC 222 Power Point Module</td>
<td>1</td>
</tr>
<tr>
<td>BTEC 224 Office Procedures</td>
<td>5</td>
</tr>
<tr>
<td>HR 110 Human Relations-Workplace</td>
<td>5</td>
</tr>
</tbody>
</table>

Chemistry

Emphasis: Associate in Science
Degree: Certificate in Science

PURPOSE: The Associate in Science with an emphasis in Chemistry is for students interested in transferring to a four-year college or university to complete a bachelor’s degree. Students who complete this educational plan are reasonably assured of junior level standing at most four-year colleges and universities in Washington State.

You are urged to consult with your advisor to coordinate your program with the requirements at the institution to which you intend to transfer.

If you have successfully completed algebra, geometry, trigonometry, pre-calculus, chemistry and physics in high school you are prepared to enter Precalculus Refresher (MATH& 135) and General College Chemistry (CHEM& 161) and completion of your program in four years is possible.

Suggested Order of Classes

<table>
<thead>
<tr>
<th>Fall Quarter, First Year</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL&amp; 101 Composition I</td>
<td>5</td>
</tr>
<tr>
<td>CHEM&amp; 161 General Chem w/lab I</td>
<td>6</td>
</tr>
<tr>
<td>MATH 118 Linear Algebra</td>
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</table>

<table>
<thead>
<tr>
<th>Winter Quarter, First Year</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CHEM&amp; 162 General Chem w/lab II</td>
<td>6</td>
</tr>
<tr>
<td>MATH&amp; 151 Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>SPEE 110 Prin of Speech Communication</td>
<td>5</td>
</tr>
<tr>
<td>Health &amp; Fitness Distribution</td>
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<table>
<thead>
<tr>
<th>Spring Quarter, First Year</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CHEM&amp; 163 General Chem w/lab III</td>
<td>6</td>
</tr>
<tr>
<td>MATH&amp; 152 Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>Health &amp; Fitness Distribution</td>
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<tr>
<td>Social Science Distribution</td>
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<table>
<thead>
<tr>
<th>Fall Quarter, Second Year</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CHEM&amp; 261 Organic Chemistry w/lab I</td>
<td>6</td>
</tr>
<tr>
<td>PHYS&amp; 221 Engineering Physics I</td>
<td>5</td>
</tr>
<tr>
<td>Humanities Distribution</td>
<td>OR</td>
</tr>
<tr>
<td>Social Science Distribution</td>
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</table>

<table>
<thead>
<tr>
<th>Winter Quarter, Second Year</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM&amp; 262 Organic Chemistry w/lab II</td>
<td>6</td>
</tr>
<tr>
<td>MATH&amp; 163 Calculus III</td>
<td>5</td>
</tr>
<tr>
<td>PHYS&amp; 222 Engineering Physics II</td>
<td>5</td>
</tr>
<tr>
<td>Health &amp; Fitness Distribution</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Quarter, Second Year</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM&amp; 263 Organic Chemistry w/lab III</td>
<td>6</td>
</tr>
<tr>
<td>MATH 212 Differential Equations</td>
<td>5</td>
</tr>
<tr>
<td>PHYS&amp; 223 Engineering Physics III</td>
<td>5</td>
</tr>
</tbody>
</table>

Chiropractic

See Pre-Chiropractic, Pre-Physical Therapy

Civil Engineering

Emphasis: Land Survey Technician
Degree: Certificate of Proficiency

PURPOSE: The Land Survey Technician Certificate of Proficiency is designed for students who only want a Land Surveying credential. Courses in this certificate may be part of the first year of a Civil Engineering ATA degree.

PROGRAM OUTCOMES: Students who successfully complete this program will have demonstrated the ability to:

• Demonstrate proven field safety actions, including: appropriate clothing and protective equipment, use of protective devices provided, lift, carry and safely in field conditions, avoid actual and potential hazards, recognize and alert coworkers to all observed risks.
• Exhibit fully reliable work habits, consistent with established employment norms for presence, punctuality, and timely task completion with acceptable quality.
Suggested Order of Classes

**Fall Quarter Credits**
- CAD 113: Computer Aided Drafting II 5
- CET 120: Survey I 5
- HR 110: Human Relations 5
- TMATH 100: Technical Math 5

**Winter Quarter Credits**
- CAD 112: Computer Aided Drafting I 5
- CET 121: Survey II 5
- TMATH 110: Technical Math II 3
- WRT 105: Writing in the Workplace 5

**Spring Quarter Credits**
- CET 120: Survey I 5
- TMATH 111: Technical Math III 4

Students must complete each CET class with a 2.0 or higher to qualify for the next CET class and a program GPA of 2.0 or better to receive the certificate.

---

**Computer-Aided Drafting**

**Emphasis:** Computer-Aided Drafting

**Degree:** Certificate of Completion

**Program Description:** The Certificate of Completion in Computer-Aided Drafting is specifically designed for individuals who are currently in a technical profession and desire to upgrade skills in computer-aided drafting technology. Upon successful completion, the individual will have developed solid technical skill with CAD in their current profession.

**Program Outcomes:** Students who successfully complete this program will have demonstrated the ability to:
- Demonstrate proper care and handling of sensitive measuring equipment.
- Participate in trigonometric leveling operations correct to within one tenth of a foot.
- Perform necessary field calculations to stektoke a horizontal curve.
- Diagram section subdivisions in relation to the section, township, range, standard parallel, guide meridian, base line and principle meridian.

**Suggested Order of Classes**

**Fall Quarter Credits**
- CAD 112: Computer Aided Drafting I 5
- CET 120: Survey I 5
- HR 110: Human Relations 5
- TMATH 100: Technical Math 5

**Winter Quarter Credits**
- CAD 113: Computer Aided Drafting II 5
- CET 121: Survey II 5
- TMATH 110: Technical Math II 3
- WRT 105: Writing in the Workplace 5

**Spring Quarter Credits**
- CET 120: Survey I 5
- TMATH 111: Technical Math III 4

Students will benefit from completing coursework in Computer Applications and Applied Mathematics.

Students must earn a 2.0 or better in each CAD class to progress in the program.

---

**Computer Science Technology**

**Emphasis:** Computer Science Technology

**Degree:** Associate in Arts

**Program Description:** The Certificate of Completion in Computer Science Technology is designed to provide students with training necessary to complete for entry-level employment in the Information Technology industries. It is extremely important that you, the student, identify the institution you intend to transfer to as soon as possible as some computer science programs have specific general education requirements and prerequisites.

**Program Outcomes:** Students who successfully complete this program will have demonstrated the ability to:
- Demonstrate core IT competency in their area of specialization.
- Use a variety of practices for securing data and end-user systems.
- Function effectively as a member of a team to accomplish common goals.
- Read and interpret technical information, as well as listen effectively to and communicate orally with a wide range of audiences.
- Demonstrate the attitudes, knowledge and abilities associated with quality customer service.
- Research IT problems, develop and carry out appropriate strategies for resolving them.
- Design and implement a hardware and/or software solution responsive to an identified scenario.

**Suggested Order of Classes**

**Fall Quarter, First Year Credits**
- ENGL 101: English Composition I 5
- MATH& 141: Precalculus I 5
- Health & Fitness Distribution 3
- Humanities Distribution 5

**Winter Quarter, First Year Credits**
- ENGL 102: Composition II 5
- MATH& 142: Precalculus II 5
- Social Science Distribution 5

**Spring Quarter, First Year Credits**
- CS& 131: C++ Programming OR
- CS& 141: Java: Object Oriented Program I 5
- MATH& 151: Calculus I 5
- Humanities Distribution 5

**Fall Quarter, Second Year Credits**
- PHYS& 221: Engineering Physics I 5
- Elective 5
- Social Science Distribution 5

**Winter Quarter, Second Year Credits**
- Elective 5
- Humanities Distribution 5
- Science Distribution 5

**Spring Quarter, Second Year Credits**
- MATH 228: Discrete Mathematics 5
- Science Distribution 5
- Social Science Distribution 5

**Recommended Electives:**
- MATH 118: Linear Algebra
- MATH& 152: Calculus II
- PHYS& 222: Engineering Physics II
- PHYS& 223: Engineering Physics III

**Emphasis:** Computer Science Technology

**Degree:** Associate in Applied Science

**Program Description:** This degree is designed to provide students with training in the core IT and workplace competencies necessary to complete for entry-level employment in the Information Technology industries.

**Program Outcomes:** Students who successfully complete this program will have demonstrated the ability to:
- Function effectively as a member of a team to accomplish common goals.
- Read and interpret technical information, as well as listen effectively to and communicate orally with a wide range of audiences.
- Demonstrate the attitudes, knowledge and abilities associated with quality customer service.
- Research IT problems, develop and carry out appropriate strategies for resolving them.
- Design and implement a hardware and/or software solution responsive to an identified scenario.
- Use a variety of practices for securing data and end-user systems.
- Demonstrate core IT competency in their area of specialization.

**Suggested Order of Classes**

**Fall Quarter, First Year Credits**
- CST 101: Introduction to Programming 4
- CNT 123: Desktop OS I 4
- WRT 105: Writing in the Workplace 5
- Elective 5

**Winter Quarter, First Year Credits**
- ENGL 101: English Composition I 5

**Spring Quarter, First Year Credits**
- CST 119: Web Scripting I 4
- CNT 201: Network Technology I 4
- TMATH 100: Technical Math 5
- Elective 4

**Fall Quarter, Second Year Credits**
- MATH 141: Pre-Calculus I 5
- CNT 124: Desktop OS 2 4
Construction Management

**Emphasis:** Construction Management

**Degree:** Associate in Construction Management-DTR/MRP

PURPOSE: This degree is a Major Related Program designed for students planning to transfer and to prepare for American Council of Construction Education (ACCE) accredited majors in Construction Management at Central Washington University, Washington State University-Pullman, and University of Washington-Seattle; the degree also provides coursework for transfer into Eastern Washington University's Bachelor of Science in Technology-Construction Management.

This degree meets the requirements of the Statewide Construction Management DTA/MRP Agreement.

**Suggested Order of Classes**

### Fall Quarter, First Year Credits

- **ACCT& 201 Principles of Accounting I** 5
- **ENGL& 101 English Composition I** 5
- **MATH& 146 Introduction to Stats** 5
- **Health & Fitness Distribution** 1

### Winter Quarter, First Year Credits

- **ACCT& 202 Principles of Accounting II** 5
- **ENGL& 235 Technical Writing** OR
- **ENGL& 102 Composition II** 5
- **ENGR& 111 Engineering Graphics** 2
- **MATH& 151 Calculus I** 5

### Spring Quarter, First Year Credits

- **ACCT& 203 Principles of Accounting III** 5
- **BUS& 201 Business Law** 5
- **MATH& 152 Calculus II** 5
- **Humanities Distribution** 5

### Fall Quarter, Second Year Credits

- **ENGR& 214 Statics** 5
- **PHYS& 221 Engineering Physics I** 5
- **CHEM& 161 General Chem w/lab I** 6

### Winter Quarter, Second Year Credits

- **ECON& 201 Microeconomics** 5
- **GEOL& 101 Intro to Physical Geology** 5
- **PHYS& 222 Engineering Physics II** 5
- **Health & Fitness Distribution** 1

### Spring Quarter, Second Year Credits

- **ECON& 202 Macroeconomics** OR
- **Social Science Distribution** 5
- **SPEE 110** OR
- **SPEE 220** 5
- **Humanities Distribution** 5
- **Health & Fitness Distribution** 1

*Select course as appropriate for intended transfer institution.

Criminal Justice

**Emphasis:** Criminal Justice

**Degree:** Associate in Technical Arts

PURPOSE: Designed to meet the education needs of both working professionals and those seeking new employment in a variety of law enforcement and correctional agencies. Cooperative education components will be designed with local or state law enforcement agencies, correctional institutions, or social service support agencies. Courses offered in a variety of formats to accommodate the schedules of traditional and non-traditional students.

Cooperative education components offered in partnership with regional law enforcement agencies, adult and juvenile correctional institutions.

**PROGRAM OUTCOMES:** Students who successfully complete this program will have demonstrated the ability to:

- Discuss and demonstrate basic procedures related to the fields of law enforcement and corrections.
- Utilize knowledge about state and federal laws that impact law enforcement and corrections in decision making.
- Understand and discuss the difference in relationships between law enforcement, the community and other legal entities.
- Understand and describe the relationships that exist between the various law enforcement, corrections, and the courts systems and at the local, state and federal levels of government.
- Discuss ethics as related to law enforcement and corrections.

**Suggested Order of Classes**

### Fall Quarter, Every Year Credits

- **CJ& 101 Intro to Criminal Justice** 5
- **CJ 103 Constitutional Case Law** 5
- **WRT 105 Writing in the Workplace** 5

### Winter Quarter, Every Year Credits

- **CJ 104 Intro to Law Enforcement** 5
- **CJ 107 Criminal Procedures** 5
- **WRT 105 Writing in the Workplace** 5

### Spring Quarter, Credits

- **CJ 109 Community Policing** 5
- **CJ& 110 Criminal Law** 5
- **CJ 111 Criminal Justice Ethics** 5
- **BTEC 120 Applied Business Math** OR
- **Criminal Justice Elective** 5
PROGRAM OUTCOMES: Students who successfully complete this program will have demonstrated the ability to:

- Discuss and demonstrate basic procedures related to the fields of law enforcement and corrections.
- Utilize knowledge about state and federal laws that impact law enforcement and corrections in decision making.
- Understand and discuss the differences in relationships between law enforcement in the community and other legal entities.
- Understand and describe the relationships that exist between the various law enforcement, corrections, and the courts systems and at the local, state, and federal levels of government.
- Discuss ethics as related to law enforcement and corrections.

Suggested Order of Classes

**Fall Quarter, First Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ&amp; 101</td>
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</tr>
<tr>
<td>CJ 114</td>
<td>5</td>
</tr>
<tr>
<td>CJ&amp; 112</td>
<td>5</td>
</tr>
<tr>
<td>Criminal Justice Elective</td>
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</table>

**Winter Quarter, First Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ&amp; 104</td>
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</tr>
<tr>
<td>ENGL&amp; 102</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp; 107</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp; 146</td>
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**Spring Quarter, First Year**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CJ&amp; 110</td>
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<tr>
<td>Humanities Distribution</td>
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<tr>
<td>Science Distribution</td>
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**Summer or Spring Quarter**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ&amp; 106</td>
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</tr>
<tr>
<td>CJ&amp; 112</td>
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</tr>
<tr>
<td>Science Distribution</td>
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**Fall Quarter, Second Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CJ&amp; 110</td>
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<tr>
<td>Humanities Distribution</td>
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<tr>
<td>Science Distribution</td>
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**Winter Quarter, Second Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PHIL 103</td>
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</tr>
<tr>
<td>Science Distribution</td>
<td>5</td>
</tr>
<tr>
<td>Social Science Distribution</td>
<td>5</td>
</tr>
<tr>
<td>Health &amp; Fitness Distribution</td>
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</table>

**Winter Quarter, Third Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 103</td>
<td>5</td>
</tr>
<tr>
<td>Science Division</td>
<td>5</td>
</tr>
<tr>
<td>Social Science Division</td>
<td>5</td>
</tr>
<tr>
<td>Health &amp; Fitness Distribution</td>
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</table>

**Summer Quarter, Third Year**

<table>
<thead>
<tr>
<th>Course</th>
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</tr>
</thead>
<tbody>
<tr>
<td>CJ&amp; 129</td>
<td>5</td>
</tr>
<tr>
<td>CJ 224</td>
<td>5</td>
</tr>
<tr>
<td>WRT 105</td>
<td>5</td>
</tr>
</tbody>
</table>
Winter Quarter, First Year
- DET 110 Electrical Systems I Theory 2
- DET 111 Electrical Systems II lab 5
- DET 130 Mobile Hydraulics Theory 2
- DET 131 Mobile Hydraulics lab 5
- TMATH 116 Industrial Mathematics 5

Spring Quarter, First Year
- WRT 105 Writing in the Workplace 5
- DET 120 Engine I Theory 2
- DET 121 Engine I lab 5
- WELD 151 Welding Theory for Mechanics 2
- WELD 152 Welding Procedures-Mechanics 5

Fall Quarter, Second Year
- DET 200 Electrical Systems II Theory 2
- DET 201 Electrical Systems II lab 5
- DET 220 Engine II Theory 2
- DET 221 Engine II lab 5
- MILTH 145 Safety & Fitness 3

Winter Quarter, Second Year
- BTEC 191 Work Experience Seminar** 1
- DET 210 Power Transmissions II Theory 2
- DET 211 Power Transmissions II lab 5
- DET 225 Heavy Duty Chassis Theory 2
- DET 226 Heavy Duty Chassis lab 5
- HR 110 Human Relations-Workplace 5

Spring Quarter, Second Year
- DET 230 Practical Applications Theory 2
- DET 231 Practical Applications lab 5
- DET 190 Cooperative Work Experience*** 7
- DET 235 Mobile HVAC Theory 2
- DET 236 Mobile HVAC lab 5

Health & Fitness Distribution 3-5

Elective* 3-5

Quantitative Skills Distribution 5

Elective 3-5

Science Distribution 5

Elective 3-5

Science Distribution 5

Social Science Distribution 5

Winter Quarter, First Year
- DRMA 107 Beginning Acting 5
- ENGL 101 English Composition I 5
- Social Science Distribution 5

Winter Quarter, First Year
- DRMA 101 Introduction to Theatre 5
- ENGL 102 Composition II 5
- ENGL 204 Intro to Shakespeare 5
- Health & Fitness Distribution 1

Fall Quarter, First Year
- DRMA 108 Intermediate Acting 5
- DRMA 110 Stage Makeup 3
- Elective 3-5
- Science Distribution 5

Fall Quarter, Second Year
- Health & Fitness Distribution 1
- Quantitative Skills Distribution 5
- Social Science Distribution 5

Winter Quarter, Second Year
- ENGL 114 Intro to Dramatic Lit 5
- Elective* 3-5
- Health & Fitness Distribution 1
- Social Science Distribution 5

Spring Quarter, Second Year
- DRMA 201 Advanced Acting 5
- Humanities Distribution 3-5
- Science Distribution 5

Spring Quarter, Second Year
- DRMA 115 and DRMA 120.

Early Childhood Education

Emphasis: Early Childhood Education
Degree: Associate in Arts

Suggested Order of Classes

Fall Quarter, First Year
- ECED& 105 Intro to Early Child Education 5
- EDUC& 130 Guiding Behavior 3
- EDUC& 150 Child/Family/Community 3
- ENGL 101 English Composition 5

Winter Quarter, First Year
- ENGL 114 Intro to Dramatic Lit 5
- Scientiffict Skills Distribution 5
- Social Science Distribution 5

Spring Quarter, First Year
- ECED& 160 Curriculum Development 5
- SOC 101 Intro to Sociology 5
- Health & Fitness Distribution 1
- Humanities Distribution 5

Fall Quarter, Second Year
- PSYC 100 General Psychology 5
- Science Distribution 5
- Quantitative Skills Distribution 5

Winter Quarter, Second Year
- ECED& 190 Observation/Assessment 3
- SPEE 110 Principles of Speech 5
- Health & Fitness Distribution 1
- Science Distribution 5

Spring Quarter, Second Year
- ECED 181 Language and Literacy 5
- Humanities Distribution 5
- Social Science Distribution 5

Emphasis: Early Childhood Education
Degree: Associate in Arts

Purpose: The Early Childhood Education-Associate in Applied Science program provides students with the critical content necessary to compete for employment in early childhood education or in a school system as a teacher’s aide.

Early Childhood Education

Emphasis: Early Childhood Education
Degree: Associate in Arts

Purpose: The Early Childhood Education AA degree transfers to a four-year school to complete work for a bachelor’s degree. Coursework can apply to the Early Childhood endorsement for Washington State teaching certification. These courses acquaint the student with terms, vocabulary, and activities pertinent to a quality experience within the early childhood education field.

Course expectations include tasks to provide a foundation and proficiency for work toward a four-year degree program in early childhood education.
**Winter Quarter, First Year**  
**Credits**  
**ENGL& 101** English Composition I OR  
**WRT 105** Writing in the Workplace 5  
**ECD& 170** Environments-Young Child 3  
**ECD& 190** Observation/Assessment 3  
**EDUC& 115** Child Development 5  
**Spring Quarter, First Year**  
**Credits**  
**ECD& 160** Curriculum Development 5  
**ECD 181** Language and Literacy 5  
**TMATH 101** Foundational Math Concepts OR  
**BTEC 120** Applied Business Math 3-5  
**Fall Quarter, Second Year**  
**Credits**  
**ECD& 107** Health/Safety/Nutrition 5  
**PSYC& 100** General Psychology 5  
**Humans Distribution** 5  
**Winter Quarter, Second Year**  
**Credits**  
**EDUC& 136** School Age Care 3  
**ECD& 139** Admin Early Learning Program 3  
**HR 110** Human Relations-Workplace 5  
**SOC& 101** Intro to Sociology 5  
**Spring Quarter, Second Year**  
**Credits**  
**ECD& 132** Infants/Toddlers Care 3  
**ECD 233** ECE Practicum II 5  
**EDUC& 134** Family Child Care 3  
**Science Distribution** 5  

**Emphasis: Early Childhood Education**  
**Degree: Associate in Applied Science-Transfer**  

**PROGRAM OUTCOMES:** Students who successfully complete this program should demonstrate the ability to:  
- Plan and implement developmentally appropriate curriculum and teaching practices based on knowledge of individual children, the community and the curriculum goals and content.  
- Use individual and group guidance and problem-solving techniques to develop positive relationships with children and develop personal self-control, self-motivation and positive self-esteem.  
- Establish and maintain positive, collaborative relationships with families.  
- Articulate a philosophy and rationale for decisions while continually assessing and evaluating the effects of their choices and actions on others.  
- Serve as an advocate on behalf of young children and their families, programs for young children and the working environment for early childhood educators.  
- Demonstrate an understanding of the early childhood profession and a commitment to professionalism.  
- Demonstrate competence in managing human, fiscal, and spatial resources while meeting the health and safety needs of children and adults.  
- Model global awareness and respect for the cultural diversity of children.  
- Examine, discuss, evaluate and critique various issues and trends in Early Childhood Education.  
- Identify and explain the major historic events and theoretical perspectives of Early Childhood Education.

### Suggested Order of Classes

#### Fall Quarter, First Year  
**Credits**  
**ECD& 105** Intro Early Child Ed 5  
**ECD& 120** Practicum-Nurturing Rel 2  
**EDUC& 130** Guiding Behavior 3  
**ENGL& 101** English Composition I 5  
**Winter Quarter, First Year**  
**Credits**  
**EDUC& 115** Child Development 5  
**ENGL& 102** Composition II 5  
**Science Distribution** 5  
**Spring Quarter, First Year**  
**Credits**  
**EDUC 181** Language and Literacy 5  
**SOC& 101** Intro to Sociology 5  
**SPEE 110** Prin of Speech Communication 5  

#### Fall Quarter, Second Year  
**Credits**  
**EDUC& 150** Child/Family/Community 3  
**HR 110** Human Relations-Workplace 5  
**Health & Fitness Distribution** 3  
**Quantitative Skills Distribution** 5  
**Winter Quarter, Second Year**  
**Credits**  
**ECD& 107** Health/Safety/Nutrition 5  
**ECD& 170** Environments-Young Child 3  
**ECD& 190** Observation/Assessment 3  
**Humans Distribution** 5  
**Spring Quarter, Second Year**  
**Credits**  
**ECD& 160** Curriculum Development 5  
**ECD 233** ECE Practicum II 5  
**PSYC& 100** General Psychology 5  

### Programs of Study
**Emphasis: Early Childhood Education**

**Degree:** State Short Early Childhood Education Certificate of Specialization

PURPOSE: The ECE short certificate builds on the Initial Certificate as the second "stackable certificate". At this point developing professionals have 5 choices for areas of specialization: CE Genera., Infant/Toddler Care, School-Age Child Care, Family Child Care and ECE Administration. All short certificates provide a foundation for the State ECE Credential and Associate degree.

PROGRAM OUTCOMES are based upon the Washington State Early Childhood Education Core Competencies - students who successfully complete this program should be able to:

- Demonstrate an understanding of how children differ in their development and approaches to learning and to use this knowledge to provide opportunities that support the physical, social, emotional, and cognitive development of all young children from birth through age eight.
- Demonstrate the ability to use theory, research and foundations of education when planning and implementing Early Child Education programs.
- Plan and implement developmentally appropriate curriculum and teaching practices based on knowledge of individual children, the community and the curriculum goals and content.
- Use individual and group guidance and problem-solving techniques to develop positive and supportive relationships with children and develop personal self-control, self-motivation and positive self-esteem.
- Establish and maintain positive, collaborative relationships with families.
- Articulate a philosophy and rationale for decisions while continually assessing and evaluating the effects of their choices and actions on others.

**Courses**

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<thead>
<tr>
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**Early Childhood Education (General)**

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**Infant and Toddler Care**

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**School-Age Care**

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**Family Child Care**

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**Administration**

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<td>ECE&amp; 139 Admin of Early Lrng Prog</td>
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**Emphasis: Early Childhood Education**

**Degree:** State Early Childhood Education Certificate

PURPOSE: The Early Childhood Education Certificate Program prepares students to compete for entry level employment in the child care field. This certificate also increases the knowledge and skills of people who currently work with children.

The Children's Lab School provides an environment for observation and practice. Students acquire in-depth knowledge of child development from birth through age eight.

PROGRAM OUTCOMES: Students who successfully complete this program should be able to:

- Demonstrate an understanding of how children differ in their development and approaches to learning and to use this knowledge to provide opportunities that support the physical, social, emotional, and cognitive development of all young children from birth through age eight.
- Demonstrate the ability to use theory, research and foundations of education when planning and implementing Early Child Education programs.
- Plan and implement developmentally appropriate curriculum and teaching practices based on knowledge of individual children, the community and the curriculum goals and content.
- Use individual and group guidance and problem-solving techniques to develop positive and supportive relationships with children and develop personal self-control, self-motivation and positive self-esteem.
- Establish and maintain positive, collaborative relationships with families.
- Articulate a philosophy and rationale for decisions while continually assessing and evaluating the effects of their choices and actions on others.

**Courses**

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**Recommended course schedule**

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<td>EDUC&amp; 130 Guiding Behavior</td>
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<tr>
<td>ECE&amp; 132 Infants/Toddlers Care</td>
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<tr>
<td>ECE&amp; 134 Family Child Care</td>
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<tr>
<td>EDUC&amp; 136 School Age Care</td>
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**Winter Quarter**

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<td>ECE&amp; 190 Observation/Assessment</td>
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<td>EDUC&amp; 115 Child Development</td>
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<tr>
<td>EDUC&amp; 150 Child/Family/Community</td>
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<tr>
<td>ECE&amp; 170 Environments-Young Child</td>
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**Spring Quarter**

<table>
<thead>
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<td>TAMTH 101 Foundational Math Concepts *</td>
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<td>BTEC 120 Applied Business Math</td>
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<td>ECE&amp; 160 Curriculum Development</td>
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<td>ECE 181 Language and Literacy</td>
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**Summer or Fall Quarter**

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<td>ENGL&amp; 101 English Composition I **</td>
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<td>HR 110 Human Relations-Workplace</td>
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</table>

*ECE State Credential requires 5 credits of MATH above 100 level.
**ECE State Credential requires ENGL& 101.

**Earth Sciences**

**Emphasis:**

- Geology
- Geography
- Oceanography
- Astronomy
- Meteorology

**Degree:** Associate in Science

PURPOSE: The degree program in Earth Sciences transfers to four-year colleges and universities. Completion of the program qualifies a student for junior standing at most four-year colleges and universities in Washington except in astronomy at the University of Washington, and reasonably assures qualification outside of the state. The program will not qualify students for junior standing in astronomy at the University of Washington because only one year of physics with calculus is offered at Centralia College.
Students not prepared to enter MATH& 131 and CHEM& 121 should plan on more than four years to complete a bachelor’s degree in one of the earth sciences. For those students, a three-year program of study at Centralia College, carefully planned with an advisor, is recommended.

Suggested Order of Classes

Fall Quarter, First Year Credits
CHEM& 161 General Chemistry w/lab I 6
ENGL& 101 English Composition I 5
GEOG& 101 Intro to Physical Geography 5

Winter Quarter, First Year Credits
CHEM& 162 General Chemistry w/lab II 6
MATH& 152 Calculus II 5
SPEE 110 Speech Communication 5

Spring Quarter, First Year Credits
CHEM& 163 General Chemistry w/lab III 6
MATH& 151 Calculus I 5
Science Distribution 3

Fall Quarter, Second Year Credits
Biology (for science majors) sequence OR
OR
SCIE 115 Weather and Climate 5

Winter Quarter, Second Year Credits
Biology (for science majors) sequence OR
OR
GEOL 108 Natural Hazards & Catastrophes 5

Spring Quarter, Second Year Credits
Biology (for science majors) sequence OR
OR
SPEE 110 Speech Communication 5

Electronics, Robotics & Automation

Emphasis: Electronics, Robotics & Automation

Degree: Associate in Applied Science

Purpose: The Associate in Applied Science degree is designed for students who wish to pursue a career in electronics, robotics, and automation. The program provides foundational knowledge in electrical engineering, electronics, and computer science, preparing students for careers in fields such as robotics, automation, and control systems. It is designed to be transferable to four-year institutions.

Program Outcomes: Successful completion of the Associate in Applied Science degree will enable students to:

- Apply problem-solving skills to real-world electronics and robotics challenges.
- Demonstrate proficiency in the use of control systems and automation technology.
- Understand and apply basic principles of electronics and circuit design.
- Perform basic troubleshooting and maintenance tasks.
- Work effectively in teams and understand professional ethics.

Program Requirements:

- A minimum of 90 credits is required for the degree.
- Courses in electronics, robotics, and automation are distributed across various quarters.
- Students must maintain a minimum GPA of 2.0.

Program Courses:

- **Fall Quarter, First Year:**
  - ENGL& 101 English Composition I (5)
  - MATH& 151 Calculus I (5)
  - Science Distribution (5)
- **Winter Quarter, First Year:**
  - CHEM& 161 General Chemistry w/lab I (6)
  - ENGL& 102 Composition II (5)
  - Social Science Distribution (5)
- **Spring Quarter, First Year:**
  - CHEM& 162 General Chemistry w/lab II (6)
  - MATH& 152 Calculus II (5)
  - Health & Fitness Distribution (3)
- **Fall Quarter, Second Year:**
  - CHEM& 163 General Chemistry w/lab III (6)
  - MATH& 151 Calculus I (5)
  - Humanities Distribution (5)
- **Winter Quarter, Second Year:**
  - Biology (for science majors) sequence OR
  - SCIE 115 Weather and Climate (5)
  - Science Distribution (3)
- **Spring Quarter, Second Year:**
  - Biology (for science majors) sequence OR
  - GEOL 108 Natural Hazards & Catastrophes (5)
  - Social Science Distribution (3)

Program Highlights:

- The program offers flexibility to accommodate multiple disciplines, allowing students to choose courses that align with their career goals.
- Students are encouraged to complete a capstone project to demonstrate their proficiency and readiness for their future careers.
- The program includes opportunities for internships and cooperative education, providing real-world experience.

For more information or to schedule an advising appointment, please contact the College Advising Office.
Automation Maintenance Technician

Emphasis: Automation Maintenance Technician

Degree: Certificate of Proficiency

PURPOSE: The Automation Maintenance Technician Certificate of Proficiency program is designed to prepare students for occupations installing and replacing electronic systems, working with pneumatic devices, and simple programming of Programmable Logic Controllers and servicing production lines centered around conveyor systems.

Suggested Order of Classes

<table>
<thead>
<tr>
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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<td>DC Electronics</td>
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<td>TMATH 100</td>
<td>Technical Math I</td>
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<td>Winter Quarter</td>
<td>WRT 105</td>
<td>Writing in the Workplace</td>
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<td>ERA 121</td>
<td>AC Electronics</td>
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<td>ERA 120</td>
<td>Sensor Technology</td>
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<tr>
<td></td>
<td>ERA 151</td>
<td>Mechanical Systems</td>
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<td>Spring Quarter</td>
<td>ELT 201</td>
<td>Solid State Devices</td>
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<td>ERA 250</td>
<td>Automation I</td>
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<td>HR 110</td>
<td>Human Relations-Workplace</td>
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<td>Summer Quarter</td>
<td>ERA 212</td>
<td>Computer Electronics I</td>
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<td>ERA 150</td>
<td>Robotics I</td>
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<td>ERA 251</td>
<td>Automation II</td>
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Energy Technology

Emphasis: Energy Technology

Degree: Associate in Applied Science

PURPOSE: The Power Operations AAS Degree program prepares students to compete for employment in the Power Generation Industry.

Centralia College is designated as Washington State’s Center of Excellence for Energy Technology and is supported by statewide energy industry and labor leaders. The Energy Technology degree offers coursework in traditional sources of power generation as well as renewable energy and energy efficiency. The program prepares students for entry level positions such as power plant assistant control operator, technician, and other high voltage apprenticeships.

PROGRAM OUTCOMES: Students who successfully complete this program will have demonstrated the ability to:

- Understand and operate electrical systems.
- Understand the components used in the transmission of electricity.
- Specialize in power generating, power transmission, metering, substation operations, plant mechanics, or boiler operations.

Suggested Order of Classes

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<td>Introduction to Energy Industry</td>
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<td>MATH 098</td>
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<td>PPO 102</td>
<td>Power Generation</td>
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<td>MATH&amp; 107</td>
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<td>Excel I</td>
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<td>Plant Maintenance</td>
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Recommended Elective Courses:

- CAD 112 Computer Aided Drafting
- ERA 115 DC Electronics
- ERA 121 AC Electronics
- PHYS& 100 Physics: Non-Science Majors
- Computer Courses
- Basic Welding

*Credits not included in graduation totals.

Bioengineering and Chemical Engineering

PURPOSE: The Bio/Chemical Engineering Associate in Science degree is a pre-engineering Major Related Program designed for students transferring to a four-year college or university to complete a degree in the sub-discipline of bioengineering or chemical engineering. Elective credits should be planned with the help of an engineering advisor and based on the requirements of the specific discipline at the baccalaureate institution the student plans to attend. This two-year program requires students to be ready for calculus by the second quarter of the first year.

If you are not well prepared in high school mathematics and science, you should plan a three-year program at Centralia College in preparation for transfer to a four-year school with the main emphasis in the first year on strengthening your mathematics, basic sciences, communication, and reading skills.

Suggested Order of Classes

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<th>Course Title</th>
<th>Credits</th>
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<td>Intro to Engineering</td>
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<td>Humanities</td>
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<td>Winter Quarter</td>
<td>BIO&amp; 222</td>
<td>Majors Cell/Molecular(lab)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHEM&amp; 262</td>
<td>Organic Chemistry w/lab</td>
<td>5-6</td>
</tr>
<tr>
<td></td>
<td>MATH&amp; 163</td>
<td>Calculus III</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>PHYS&amp; 222</td>
<td>Engineering Physics II</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Health &amp; Fitness Distribution</td>
<td>T5-T6</td>
<td></td>
</tr>
</tbody>
</table>

Recommended Elective Courses:

- CAD 112 Computer Aided Drafting
- ERA 115 DC Electronics
- ERA 121 AC Electronics
- PHYS& 100 Physics: Non-Science Majors
- Computer Courses
- Basic Welding

*Choose one elective from CS& 131, CS& 141, MATH 264

An Economics class is recommended.

**If you need review prior to MATH& 151 Calculus I, you may take Pre-Calculus. Check for specific prerequisites for transfer institutions, particularly natural science and foreign language requirements.
### Suggested Order of Classes

#### Fall Quarter, First Year**  
- CHEM& 161 General Chemistry w/lab I 6  
- ENGL& 101 English Composition I 5  
- ENGR 100 Intro to Engineering 2  
- Humanities OR Social Science Distribution 5  

#### Winter Quarter, First Year  
- ENGR& 214 Statics 5  
- MATH& 151 Calculus I 5  
- Health & Fitness Distribution 3  
- Humanities OR Social Science Distribution* 5  

#### Spring Quarter, First Year  
- CS& 131 Computer Science I C++ 5  
- OR  
- CS& 141 Computer Science I Java 5  
- MATH& 152 Calculus II 5  
- ENGR& 214 Statics 5  

#### Fall Quarter, Second Year  
- MATH 118 Linear Algebra 5  
- PHYS& 221 Engineering Physics I 5  
- Humanities OR Social Science Distribution 5  

#### Winter Quarter, Second Year  
- ENGR 203 Applied Numerical Methods 5  
- ENGR& 215 Dynamics 5  
- MATH& 163 Calculus III 5  
- PHYS& 222 Engineering Physics II 5  

#### Spring Quarter, Second Year  
- ENGR& 204 Electrical Circuits 5  
- MATH 212 Differential Equations 5  
- MATH 264 Calculus IV 3  
- PHYS& 223 Engineering Physics III 5  

#### Winter Quarter, Second Year Credits  
- ENGR& 215 Dynamics 5  
- MATH& 163 Calculus III 5  
- PHYS& 222 Engineering Physics II 5  
- PHYS& 203 Applied Numerical Methods 5  

#### Spring Quarter, Second Year Credits  
- ENGR& 204 Electrical Circuits 5  
- MATH 212 Elementary Differential Equations 5  
- MATH 264 Calculus IV 3  
- PHYS& 223 Engineering Physics III 5  

---

### Program Emphasis: Computer and Electrical Engineering  
### Degree: Associate in Science-MRP  
#### Purpose:  
This pre-engineering degree is a Major Related Program designed for students transferring to a four-year college or university to complete a bachelor’s degree in computer engineering or electrical engineering.  
Elective credits should be planned with the help of an engineering advisor and based on the requirements of the specific discipline at the baccalaureate institution the student plans to attend. This two-year program requires students to be ready for calculus by the second quarter of the first year.  
If you are not well prepared in high school mathematics and science, you should plan a three-year program at Centralia College in preparation for transfer to a four-year school with the main emphasis in the first year should be on strengthening your mathematics, basic sciences, communication, and reading skills.

### Suggested Order of Classes

#### Fall Quarter, First Year Credits  
- CHEM& 161 General Chemistry w/lab I 6  
- ENGL& 101 English Composition I 5  
- ENGR 100 Intro to Engineering 2  
- Humanities OR Social Science Distribution 5  

#### Winter Quarter, First Year Credits  
- ENGR& 214 Statics 5  
- MATH& 151 Calculus I 5  
- Health & Fitness Distribution 3  
- Humanities OR Social Science Distribution* 5  

#### Spring Quarter, First Year Credits  
- CS& 131 Computer Science I C++ 5  
- OR  
- CS& 141 Computer Science I Java 5  
- MATH& 152 Calculus II 5  
- ENGR& 214 Statics 5  

#### Fall Quarter, Second Year Credits  
- MATH 118 Linear Algebra 5  
- PHYS& 221 Engineering Physics I 5  
- Humanities OR Social Science Distribution 5  

#### Winter Quarter, Second Year Credits  
- ENGR 203 Applied Numerical Methods 5  
- ENGR& 215 Dynamics 5  
- MATH& 163 Calculus III 5  
- PHYS& 222 Engineering Physics II 5  
- PHYS& 203 Applied Numerical Methods 5  

#### Spring Quarter, Second Year Credits  
- ENGR& 204 Electrical Circuits 5  
- MATH 212 Elementary Differential Equations 5  
- MATH 264 Calculus IV 3  
- PHYS& 223 Engineering Physics III 5  

---

### Program Emphasis: Mechanical & Civil Engineering  
### Degree: Associate in Science-MRP  
#### Purpose:  
This pre-engineering degree is a Major Related Program designed for students transferring to a four-year college or university to complete a degree in the sub-disciplines of mechanical, civil, aeronautical, industrial, and materials science engineering.  
Elective credits should be planned with the help of an engineering advisor and based on the requirements of the specific discipline at the baccalaureate institution the student plans to attend.  
This two-year program requires students to be calculus ready second quarter of the first year. If you are not well prepared in high school mathematics and science, you should plan a three-year program at Centralia College in preparation for transfer to a four-year school. The main emphasis in the first year should be on strengthening your mathematics, basic sciences, communication, and reading skills.

### Suggested Order of Classes

#### Fall Quarter, First Year Credits  
- CHEM& 161 General Chemistry w/lab I 6  
- ENGL& 101 English Composition I 5  
- ENGR 100 Intro to Engineering 2  
- Social Science Distribution** 5  

#### Winter Quarter, First Year Credits  
- CHEM& 162 General Chemistry w/lab II 6  
- MATH& 151 Calculus I 5  
- Humanities Distribution 5  

#### Spring Quarter, First Year Credits  
- ENGR& 214 Statics 5  
- MATH& 152 Calculus II 5  
- Health & Fitness Distribution 3  
- Humanities Distribution OR Social Science Distribution** 5  

#### Fall Quarter, Second Year Credits  
- ENGR& 225 Mechanic of Materials 5  
- MATH 118 Linear Algebra 5  
- PHYS& 221 Engineering Physics I 5  

#### Winter Quarter, Second Year Credits  
- ENGR& 215 Dynamics 5  
- MATH& 163 Calculus III 5  
- PHYS& 222 Engineering Physics II 5  
- Social Science Distribution** 5  

#### Spring Quarter, Second Year Credits  
- ENGR& 204 Electrical Circuits 5  
- MATH 212 Elementary Differential Equations 5  
- MATH 264 Calculus IV 3  
- PHYS& 223 Engineering Physics III 5  

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### English

#### Program Emphasis: English  
#### Degree: Associate in Arts  
#### Purpose:  
The Associate in Arts degree with an emphasis in English provides introductory-level and survey courses within the parameters of an English major as that English major is defined at the baccalaureate degree-granting institution to which the student transfers. Most English departments at the baccalaureate level will accept 10-15 credits of lower-level English courses as meeting minimum requirements toward a major in English. English credits taken at Centralia College beyond the 10-15 acceptable credits at the baccalaureate institution will be considered elective credits and may or may not fulfill English major requirements at the baccalaureate transfer institution.

### Suggested Order of Classes

#### Fall Quarter, First Year Credits  
- ENGL& 101 English Composition I 5  
- Humanities Distribution 5  
- Social Science Distribution* 5  

#### Winter Quarter, First Year Credits  
- ENGL& 102 Composition II 5  
- Elective (Literature or Creative Writing) 5  
- Humanities Distribution 5  

#### Spring Quarter, First Year Credits  
- Elective (Literature Class) 5  
- Health & Fitness Distribution 3  
- Social Science Distribution 5  

#### Fall Quarter, Second Year Credits  
- Elective (Literature Class) 5  
- Humanities Distribution 5  
- Science Distribution 5  

#### Winter Quarter, Second Year Credits  
- Elective (Literature Class) 5  
- Science Distribution 5  
- Social Science Distribution 5  

#### Spring Quarter, Second Year Credits  
- Elective (Literature Class) 5  
- Humanities Distribution 5  
- Science Distribution 5  

---

*An Economics class is recommended.

**If you need review prior to MATH& 151 Calculus I, you should take Precalculus.
To satisfy the 3-5 credit diversity requirement, students may wish to take:
- Non-Western Literature-winter
- Women in Literature-spring
Other “D” courses listed in current college catalog.
* It is recommended students take one History class to satisfy a Social Science distribution requirement.
** Creative writing electives available.

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**Environmental Science**

**Emphasis:** Environmental Science

**Degree:** Associate in Arts

PURPOSE: The AA degree with an emphasis in Environmental Studies is intended for students who plan a career in an environmental field in areas such as environmental policy and law, urban planning, environmental ethics, and environmental advocacy.

<table>
<thead>
<tr>
<th>Fall Quarter, First Year</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL&amp; 100</td>
<td>Survey of Biology</td>
</tr>
<tr>
<td>ENGL&amp; 101</td>
<td>English Composition I</td>
</tr>
<tr>
<td>Humanities Distribution</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Winter Quarter, First Year</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVS&amp; 100</td>
<td>Survey of Env Science</td>
</tr>
<tr>
<td>Social Science Distribution</td>
<td>5</td>
</tr>
<tr>
<td>Elective</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Quarter, First Year</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp; 102</td>
<td>Composition II</td>
</tr>
<tr>
<td>CHEM&amp; 121</td>
<td>Introducet to Chemistry</td>
</tr>
<tr>
<td>Humanities Distribution</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Quarter, Second Year</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO&amp; 101</td>
<td>Intro to Physical Geology</td>
</tr>
<tr>
<td>MATH&amp; 146</td>
<td>Introduction to Stats</td>
</tr>
<tr>
<td>Social Science Distribution</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Winter Quarter, Second Year</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH</td>
<td>130 Health &amp; Wellness</td>
</tr>
<tr>
<td>Social Science Distribution</td>
<td>5</td>
</tr>
<tr>
<td>Electives</td>
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</table>

<table>
<thead>
<tr>
<th>Spring Quarter, Second Year</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities Distribution</td>
<td>5</td>
</tr>
<tr>
<td>Electives</td>
<td>10</td>
</tr>
</tbody>
</table>

Recommend choosing one from the following:
Select three Social Science distribution classes, one class from each of the following disciplines:
- ANTH& 100, 206, 225, OR GEOG& 200
- ECON& 202 or ECON& 201
- POLS& 101 OR POLS& 202

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**Exercise Science**

*See Physical Education, Health and Recreation*

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**Fine Arts**

**Emphasis:** Fine Arts

**Degree:** Associate in Arts

PURPOSE: The AA degree with a Fine Arts emphasis is for students interested in transferring to a four-year college or university to complete a bachelor's degree with a major in art.

As well as providing a basic liberal arts foundation, this program provides a solid base in studio art and art history which is essential for those interested in entering a variety of art professions.

**Suggested Order of Classes**

<table>
<thead>
<tr>
<th>Fall Quarter, First Year</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART&amp; 100</td>
<td>Art Appreciation</td>
</tr>
<tr>
<td>ART</td>
<td>110 Design</td>
</tr>
<tr>
<td>Humanities Distribution</td>
<td>5</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Winter Quarter, First Year</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART</td>
<td>111 Sculpture</td>
</tr>
<tr>
<td>ENGL&amp; 101</td>
<td>English Composition I</td>
</tr>
<tr>
<td>Social Science Distribution</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Quarter, First Year</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART</td>
<td>102 Composition II</td>
</tr>
<tr>
<td>ENGL</td>
<td>122 English Composition II</td>
</tr>
<tr>
<td>Science Distribution</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Quarter, Second Year</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART</td>
<td>200 Art History: Ancient</td>
</tr>
<tr>
<td>Science Distribution</td>
<td>5</td>
</tr>
<tr>
<td>Quantitative Skills Distribution</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Winter Quarter, Second Year</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART</td>
<td>201 Art History: 15th-17th Century</td>
</tr>
<tr>
<td>Health &amp; Fitness Distribution</td>
<td>3</td>
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<tr>
<td>Science Distribution</td>
<td>5</td>
</tr>
<tr>
<td>Social Science Distribution</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Quarter, Second Year</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART</td>
<td>202 Art History: 18th-20th Century</td>
</tr>
<tr>
<td>Science Distribution</td>
<td>5</td>
</tr>
<tr>
<td>Social Science Distribution</td>
<td>5</td>
</tr>
</tbody>
</table>

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**Foreign Languages**

**Emphasis:** Chinese, French, Spanish

**Degree:** Associate in Arts or Associate in Liberal Arts

PURPOSE: The degree plan is designed for transfer but is also appropriate for anyone who wishes a solid foundation in Chinese, French, or Spanish. It will benefit students with personal reasons for speaking a foreign language as well as travelers and those planning a career in international business, teaching, social work, interpreting, translating, and the Foreign Service, to name just a few possibilities.
### General Engineering

*See Engineering*

### Fall Quarter, First Year Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIN&amp; 102 Chinese Composition I</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp; 101 English Composition I</td>
<td>5</td>
</tr>
<tr>
<td>Quantitative Skill Distribution</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
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</table>

### Winter Quarter, First Year Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIN&amp; 102 Composition II</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp; 101 Cultural Anthropology</td>
<td>5</td>
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<td>Health &amp; Fitness Distribution</td>
<td>1</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

### Spring Quarter, First Year Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIN&amp; 250 Intercultural Communications</td>
<td>5</td>
</tr>
<tr>
<td>Science Distribution</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10</strong></td>
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</table>

### Fall Quarter, Second Year Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN&amp; 221 Spanish IV</td>
<td>5</td>
</tr>
<tr>
<td>Elective (for Chinese and French majors)</td>
<td>5</td>
</tr>
<tr>
<td>Humanities Distribution</td>
<td>5</td>
</tr>
<tr>
<td>Social Science Distribution</td>
<td>5</td>
</tr>
<tr>
<td>Health &amp; Fitness Distribution</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

### Winter Quarter, Second Year Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN&amp; 222 Spanish VI (for Spanish majors)</td>
<td>5</td>
</tr>
<tr>
<td>Elective (for Chinese and French majors)</td>
<td>5</td>
</tr>
<tr>
<td>Social Science Distribution</td>
<td>5</td>
</tr>
<tr>
<td>Science Distribution</td>
<td>5</td>
</tr>
<tr>
<td>Health &amp; Fitness Distribution</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

### Spring Quarter, Second Year Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN&amp; 223 Spanish VI (for Spanish majors)</td>
<td>5</td>
</tr>
<tr>
<td>Elective (for Chinese and French majors)</td>
<td>5</td>
</tr>
<tr>
<td>Elective</td>
<td>5</td>
</tr>
<tr>
<td>Science Distribution</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

To qualify for this degree students must complete a minimum of 90 credits in courses numbered 100 or above.

Students are advised to consult their advisor for the selection of distribution and elective credits. Foreign language majors are encouraged to include courses in Anthropology, Political Science, Business, Education, Criminal Justice or Medical and Legal Terminology, depending on focus.

### Geography

*See Earth Sciences*

### Geology

*See Earth Sciences*

### Graphic Design

**Emphasis:** Graphic Design  
**Degree:** Associate in Arts

PURPOSE: Graphic design is art that interests, informs, persuades, or sells. It has taken the traditional form of printed material and now includes computer imaging. The AA degree with emphasis in graphic design is for students who want to complete a two-year program or transfer to a four-year college or university. This educational plan gives students a solid base in studio art. A portfolio of artwork is required to demonstrate studio abilities upon completion of the program.

**Suggested Order of Classes**

#### Fall Quarter, First Year Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 110 Design</td>
<td>4</td>
</tr>
<tr>
<td>ENGL&amp; 101 English Composition I</td>
<td>5</td>
</tr>
<tr>
<td>Health &amp; Fitness Distribution</td>
<td>1</td>
</tr>
<tr>
<td>Humanities Distribution</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

#### Winter Quarter, First Year Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 201 Art History: 15th-17th Century</td>
<td>5</td>
</tr>
<tr>
<td>JOUR 160 Intro to Mass Media</td>
<td>5</td>
</tr>
<tr>
<td>Health &amp; Fitness Distribution</td>
<td>1</td>
</tr>
<tr>
<td>Quantitative Skills Distribution</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

#### Spring Quarter, First Year Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 102 Drawing I</td>
<td>5</td>
</tr>
<tr>
<td>ART 202 Art History: 18th-20th Century</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp; 102 Composition II</td>
<td>5</td>
</tr>
<tr>
<td>Health &amp; Fitness Distribution</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
</tr>
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</table>

#### Fall Quarter, Second Year Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 130 Computer Graphics</td>
<td>5</td>
</tr>
<tr>
<td>Social Science Distribution</td>
<td>5</td>
</tr>
<tr>
<td>Health &amp; Fitness Distribution</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
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</table>

#### Winter Quarter, Second Year Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 135 Graphic Design</td>
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<tr>
<td>Social Science Distribution</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
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#### Spring Quarter, Second Year Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 174 Digital Photography</td>
<td>5</td>
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<tr>
<td>Social Science Distribution</td>
<td>5</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

**Recommended distribution for Graphic Design majors:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPEE 110 Prin of Speech Communication</td>
<td>5</td>
</tr>
</tbody>
</table>

### History

**Emphasis:** History  
**Degree:** Associate in Arts

PURPOSE: The Associate in Arts degree with emphasis in History is designed for those planning to major in English, History, Political Science, or related academic areas after transferring to a four-year college or university.

Through the study of history students systematically examine the past and gain an opportunity to explore human nature and contemporary concerns. Historians work from the written records (cultural, economic, political, and scientific) of past generations to discover the kinds of lives led and problems faced.

The study of the trials and accomplishments, deeds, and aspirations of past generations is an excellent way to obtain the kind of broad education needed in our constantly changing world.

**Suggested Order of Classes**

#### Fall Quarter, First Year Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp; 101 English Composition I</td>
<td>5</td>
</tr>
<tr>
<td>HIST&amp; 116 Western Civilization I</td>
<td>5</td>
</tr>
<tr>
<td>HUM 110 Cultural Ethics</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
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</tbody>
</table>

#### Winter Quarter, First Year Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp; 102 Composition II</td>
<td>5</td>
</tr>
<tr>
<td>HIST&amp; 117 Western Civilization II</td>
<td>5</td>
</tr>
<tr>
<td>Health &amp; Fitness Distribution</td>
<td>1</td>
</tr>
<tr>
<td>Science Distribution</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

#### Spring Quarter, First Year Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON&amp; 202 Macroeconomics</td>
<td>5</td>
</tr>
<tr>
<td>HIST&amp; 118 Western Civilization III</td>
<td>5</td>
</tr>
<tr>
<td>Health &amp; Fitness Distribution</td>
<td>1</td>
</tr>
<tr>
<td>Quantitative Skills Distribution</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

#### Fall Quarter, Second Year Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp; 260 Non-Western World Literature</td>
<td>5</td>
</tr>
<tr>
<td>HIST&amp; 147 U.S. History II</td>
<td>5</td>
</tr>
<tr>
<td>Health &amp; Fitness Distribution</td>
<td>1</td>
</tr>
<tr>
<td>Science Distribution</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

#### Winter Quarter, Second Year Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST&amp; 148 U.S. History III</td>
<td>5</td>
</tr>
<tr>
<td>POLS&amp; 202 American Government</td>
<td>5</td>
</tr>
<tr>
<td>Humanities Distribution</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

These Humanities courses would be particularly valuable:


### Humanities

**Emphasis:** Humanities  
**Degree:** Associate in Arts

PURPOSE: The Associate in Arts degree with emphasis in Humanities is designed for students to major in English, History, Political Science, or related academic areas after transferring to a four-year college or university.

The study of a foreign language is highly recommended.

Students are urged to consult with their advisor before selecting electives. This will allow coordination of electives with desired career goal.
Suggested Order of Classes

**Fall Quarter, First Year**
- ENGL & 101 English Composition I 5
- PSYC & 100 General Psychology 5
- Science Distribution 5
- T5

**Winter Quarter, First Year**
- ENGL & 102 Composition II 5
- HUM & 117 Humanities II 5
- Science Distribution 5
- T5

**Spring Quarter, First Year**
- ENGL & 244 American Literature 5
- MATH & 151 Calculus I 5
- Science Distribution 5
- T5

**Fall Quarter, Second Year**
- ENGL & 244 American Literature 5
- HUM & 207 Ethics & Cultural Values 5
- SPEE 110 Prof of Speech Communication 5
- T5

**Winter Quarter, Second Year**
- HUM & 270 Survey of Film 5
- SOC & 101 Intro to Sociology 5
- Science Distribution 5
- T5

**Spring Quarter, Second Year**
- MUSC 140 History of American Music 5
- Science Distribution 5
- Elective 2
- T5

---

### Mathematics Education

**Emphasis:** Mathematics Education

**Degree:** Associate in Math Education-MRP

**Purpose:** The Associate in Math Education is intended to prepare students who have an emphasis in Mathematics for students interested in transferring to a four-year college or university to complete a bachelor's degree in Mathematics. The emphasis in the first year should be on strengthening your math, basic science, communication, and reading skills.

**Suggested Order of Classes**

**Fall Quarter, First Year**
- ENGL & 101 English Composition I 5
- MATH & 151 Calculus I 5
- SPEE 110 Prof of Speech Communication 5
- T5

**Winter Quarter, First Year**
- ENGL & 102 Composition II 5
- MATH & 151 Calculus I 5
- SPEE 110 Prof of Speech Communication 5
- T5

**Spring Quarter, First Year**
- ENGL & 102 Composition II 5
- MATH & 152 Calculus II 5
- Health & Fitness Distribution 1
- Social Science Distribution 5
- T6

**Fall Quarter, Second Year**
- MATH & 163 Calculus III 5
- Humanities Distribution 5
- Science Distribution 5
- T5

**Winter Quarter, Second Year**
- MATH & 163 Calculus III 5
- Humanities Distribution 5
- Science Distribution 5
- T5

**Spring Quarter, Second Year**
- MATH & 264 Calculus IV 3
- Health & Fitness Distribution 1
- Science Distribution 5
- T4

**Recommended Courses**
- BIOL & 211, 222, 223 5
- MATH & 146, 228 5
- PHYS & 104, 105, 106, 221, 222, 223 5
- BIOL & 241, 242 5

---

### Media Studies

**Emphasis:** Radio Broadcasting

**Degree:** Associate in Arts

**Purpose:** The Media Studies program is designed for students interested in transferring to a four-year college or university to complete a bachelor's degree in Electronic Media which includes: Radio, Television, Video Production, Film Broadcast Journalism, and Sports Broadcasting. In some cases this program is equally suited for students interested in a two-year terminal degree prior to entry in the media field.

**Fall Quarter, First Year**
- ENGL & 101 English Composition I 5
- MATH & 151 Calculus I 5
- Science Distribution 5
- T5

**Winter Quarter, First Year**
- ENGL & 102 Composition II 5
- MATH & 152 Calculus II 5
- Health & Fitness Distribution 1
- Social Science Distribution 5
- T6

**Spring Quarter, First Year**
- ENGL & 101 English Composition I 5
- MATH & 151 Calculus I 5
- Health & Fitness Distribution 1
- Social Science Distribution 5
- T6
### Media Studies—Film

**Emphasis:** Media Studies—Film

**Degree:** Associate in Arts

**PURPOSE:** The Media Studies program is designed for students interested in transferring to a four-year college or university to complete a bachelor's degree in Electronic Media. In some cases this program is equally suited for students interested in a two-year terminal degree prior to entry in the media field. The Electronic Media facilities at Centralia College are unique among Washington State community colleges.

Students learn on professional audio and video equipment and are provided experience in numerous areas of production. Students primarily interested in Sports Announcing have the opportunity to perfect their skills on campus radio station KCED-FM, on live broadcasts over the local cable access channel and in the college's television studio and production rooms. Classes and practical application will help students develop skills in studio and field production.

For students interested primarily in Television and Film the Centralia College television studio and production facilities are well equipped and provide experience in taping, directing, editing and producing. Classes will help students attain skills in camera work, studio and field production. Lighting, running an audio board, writing, directing, producing and editing short video projects are also covered. The Media Studies program in conjunction with the Drama department also offers students the opportunity to learn some set design and building crafts as well as lighting techniques and skills.

Students in the Television and Film classes will have the opportunity to participate in live productions including broadcast of College Basketball games, community forums as well as help in recording the College Musical. Students who transfer to a four-year college should consult their advisors for choice of distribution credit and elective courses.

**Suggested Order of Classes**

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Credits</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Quarter, First Year</td>
<td></td>
<td>JOUR 160 Intro to Mass Media 5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M ST 220 Broadcast News and Prod 4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M ST 262 Adv. TV &amp; Video Production 5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Health &amp; Fitness Distribution 1</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Fall Quarter, Second Year</td>
<td>1</td>
<td>M ST 271 Radio Broadcasting Intern** 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OR</td>
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<tr>
<td></td>
<td></td>
<td>M ST 281 Television Internship 1</td>
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<td>Social Science Distribution 5</td>
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<td></td>
<td></td>
<td>Science Distribution 5</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Winter Quarter, Second Year</td>
<td>12-13</td>
<td>M ST 272 Radio Broadcasting Intern** 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M ST 281 Television Internship 1</td>
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<td>Health &amp; Fitness Distribution 1</td>
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<td>Social Science Distribution 5</td>
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<td></td>
<td>Science Distribution 5</td>
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</tbody>
</table>

* Radio Majors
**In cooperation with a professional radio or TV company, a student may enroll in M ST 190, Cooperative Work Experience. A student may receive up to 12 credits for learning that occurs on the job. Attendance at a Work Experience Seminar is required. You must take the Work Experience Seminar before or in the same quarter as the Co-op course.*

### Media Studies—Sports Announcing and Production

**Emphasis:** Sports Announcing/Production

**Degree:** Associate in Arts

**PURPOSE:** The Media Studies program is designed for students interested in transferring to a four-year college or university to complete a bachelor's degree in Electronic Media. In some cases this program is equally suited for students interested in a two-year terminal degree prior to entry in the media field. The Electronic Media facilities at Centralia College are unique among Washington State community colleges.

Students learn on professional audio and video equipment and are provided experience in numerous areas of production. Students primarily interested in Sports Announcing have the opportunity to perfect their skills on campus radio station KCED-FM, on live broadcasts over the local cable access channel and in the college's television studio and production rooms. Classes and practical application will help students develop skills in studio and field production.

Instruction on vocal techniques, production, conducting and recording interviews, writing and research as well as specific duties of each member of a broadcast booth will be covered. Students who transfer to a four-year college should consult their advisors for choice of distribution credit and elective courses.

**Suggested Order of Classes**

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Credits</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Quarter, First Year</td>
<td></td>
<td>DRMA 106 Intro to Stage Craft 3</td>
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<tr>
<td></td>
<td></td>
<td>ENGL 101 English Composition I 5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M ST 260 Intro to Television and Video Production 5</td>
</tr>
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<td>Social Science Distribution 5</td>
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<tr>
<td></td>
<td>78</td>
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<tr>
<td>Fall Quarter, Second Year</td>
<td></td>
<td>DRMA 111 Stage Lighting 3</td>
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<td></td>
<td></td>
<td>ENGL 102 Composition II 5</td>
</tr>
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<td></td>
<td></td>
<td>HUM 270 Survey of Film Studies 5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M ST 261 Adv. Television and Video Production 5</td>
</tr>
<tr>
<td></td>
<td>81</td>
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<tr>
<td>Spring Quarter, First Year</td>
<td>12-14</td>
<td>DRMA 103 Set Design 3</td>
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<tr>
<td></td>
<td></td>
<td>DRMA 120 Intro to Playwriting 5</td>
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<tr>
<td></td>
<td></td>
<td>M ST 262 Television Production 3</td>
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<td>Health &amp; Fitness Distribution 3</td>
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<tr>
<td></td>
<td>14</td>
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<tr>
<td>Fall Quarter, Second Year</td>
<td></td>
<td>DRMA 107 Beginning Acting 5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M ST 281 Television Internship 1</td>
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<td>Science Distribution 5</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Winter Quarter, Second Year</td>
<td>12-13</td>
<td>M ST 126 Sports Announcing for Football 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M ST 230 Radio Broadcasting 5</td>
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<td>Social Science Distribution 5</td>
</tr>
<tr>
<td></td>
<td>17</td>
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</tr>
<tr>
<td>Spring Quarter, Second Year</td>
<td>12-14</td>
<td>M ST 127 Sports Announcing for Baseball 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M ST 231 Adv. Radio Broadcast 5</td>
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<td>Social Science Distribution 5</td>
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<td></td>
<td>17</td>
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<tr>
<td>Fall Quarter, First Year</td>
<td></td>
<td>JOUR 160 Intro to Mass Media 5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M ST 128 Sports Announcing for Baseball 1</td>
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<tr>
<td></td>
<td></td>
<td>M ST 220 Intro to Broadcast News &amp; Production 4</td>
</tr>
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<td>Health &amp; Fitness Distribution 1</td>
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<td>Science Distribution 5</td>
</tr>
<tr>
<td></td>
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</tbody>
</table>
Nursing-Registered  
Major:  Nursing (RN)  
Degree:  Associate in Applied Science-Transfer  

PURPOSE: The RN nursing program at Centralia College is designed to prepare men and women to give nursing care in a variety of health care settings. Students who complete the RN program are eligible to take the National Council Licensure Examination for Registered Nursing (NCLEX-RN). In addition to preparing a student to compete for employment in the nursing profession, the AAS-T degree provides science and general education courses appropriate for students planning a future transfer directly into selected Bachelor of Science in Nursing (BSN) programs.

A maximum of 24 students are selected each year for the RN program. RN students must apply for admission to the program. Students wishing to enter the RN program must meet all of the prerequisite courses, grade point average requirements, and have Nurse Aide Certification in Washington State. Complete RN admission application materials are available through the Centralia College Office of Admissions & Records. Applications are due in April; course completed through Spring quarter will be considered. (Subject to change.)

If you are admitted to the RN program, you must then provide consent forms and immunization records to the Nursing Director and attend a mandatory orientation session. Before beginning clinicals, Nationwide and Washington State specific background checks will be obtained. This includes a criminal records check required by clinical facilities in order to be at those clinical sites. You also must show proof of current Basic Life Support (BLS) for Health Care Providers (HCP).

PROGRAM OUTCOMES: Students who successfully complete this program should be able to meet the Program Objectives associated with the following nursing roles:

- Caregiver-Provides nursing care interventions that demonstrate safety and a personal sense of accountability and commitment.
- Decision Maker-Uses decision making as a purposeful, self-regulated process that incorporates critical thinking in the consideration of evidence, contexts, conceptualizations, methods and criteria.
- Communicator-Demonstrates interactive communication processes (verbal, non-verbal, written, or through technology) that express advocacy, caring, compassion and cultural awareness.
- Teacher-Transmits health information, evaluates responses to teaching, and modifies teaching based on identified responses to promote and facilitate informed decision making, achieve positive outcomes and support self-care activities.
- Manager/Leader-Uses human, physical, financial and technological resources efficiently and effectively to meet client needs and support organizational outcomes. Possesses the ability to guide, teach, motivate, direct, and influence others to attain goals through cooperation and open professional communication in shared planning, decision making, problem solving and goal setting.
- Professional Respects individual rights and professional standards, adheres to the nurse practice act and demonstrates honesty and integrity in behaviors characterized by commitment to others, appreciation for the values of the nursing profession, and participation in professional development activities.
- Researcher-Applies the scientific method to gain new knowledge, discover solutions to problems, advance the profession of nursing, and improve the delivery of nursing and health care.

**Prerequisites**  

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CHEM&amp; 121 Intro to Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp; 101 English Composition I</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp; 146 Introduction to Stats</td>
<td>5</td>
</tr>
<tr>
<td>PSYC&amp; 200 Lifespan Psychology</td>
<td>5</td>
</tr>
<tr>
<td>BIOL&amp; 241 Human A &amp; P 1</td>
<td>5</td>
</tr>
<tr>
<td>BIOL&amp; 242 Human A &amp; P 2</td>
<td>5</td>
</tr>
<tr>
<td>NAC Certification</td>
<td>5</td>
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</table>

**Core Requirements**  

Courses which are recommended to be taken prior to admission into the Nursing Program.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL&amp; 260 Microbiology</td>
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</tr>
<tr>
<td>SPEE 110 Prin of Speech Communication</td>
<td>5</td>
</tr>
<tr>
<td>ANTH&amp; 206 Cultural Anthropology</td>
<td>5</td>
</tr>
<tr>
<td>OR</td>
<td></td>
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<tr>
<td>SOC&amp; 101 Intro to Sociology</td>
<td>5</td>
</tr>
<tr>
<td>Health &amp; Fitness Distribution</td>
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**Nursing Courses**  

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<tr>
<th>First Year, Fall Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 101 Basic Nursing Care Concepts</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>First Year, Winter Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 102 Common Alterations I</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First Year, Spring Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 103 Common Alterations II</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Year, Fall Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 201 Mental Health and Lifespan</td>
</tr>
<tr>
<td>NURS 220 Management &amp; Leadership</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Year, Winter Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 202 Complex Alterations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Year, Spring Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 203 Complex Management</td>
</tr>
<tr>
<td>NURS 222 Transition to Practice</td>
</tr>
</tbody>
</table>

**Medical Assistant**  

**Emphasis:** Medical Assistant  

**Degree:** Associate in Applied Science  

PURPOSE: Medical Assistants are multi-skilled practitioners who perform in a wide range of skills in physicians' offices and other health care settings. Program graduates assist physicians and other health care practitioners on many aspects of medical practice, including patient care management, administrative, and clinical procedures. Clinical procedures include: assisting with physical examinations, phlebotomy (blood draw), administering injections, performing electrocardiograms (EKGs) and instrument sterilization.

PROGRAM OUTCOMES: Students who successfully complete this program will have demonstrated the ability to:

- Perform administrative tasks using computer software to research and organize data for medical information systems.
- Demonstrate efficiency in maintaining accurate and well-organized patient medical records.
- Effectively use oral and written communication skills as they relate to a medical office environment.
- Perform within legal and ethical boundaries, including issues of patient confidentiality.
- Recognize the impact of cultural differences in care of patients.
- Use problem-solving/critical thinking to identify proper medical office procedures/processes, including infection control guidelines (Standard Precautions) as determined by the Center for Disease Control and Prevention.
Control and the Occupational Safety and Health Administration.

- Prepare and maintain examination and treatment areas.
- Demonstrate the ability to prepare a patient for and assist with routine and specialty examinations and procedures, including obtaining/documenting vital signs and body measurements.
- Demonstrate knowledge of basic pharmacology and medication administration.
- Demonstrate knowledge of laboratory procedures performed in the medical office laboratory, including venipuncture and capillary puncture.
- Recognize and be able to respond to medical office emergencies within the scope of training.
- Demonstrate ability to maintain medical office equipment and supplies.

Suggested Order of Classes

Fall Quarter, First Year Credits
- HLSV 121 Introduction to Healthcare 2
- ENGL & 101 English Composition 5
- BTEC 102 Skillbuilding I 3
- MA 139 MA Medical Terminology 5

Winter Quarter, First Year Credits
- BIOL & 170 Human Biology 5
- MA 140 Medical Assisting Intro 5
- HR 110 Human Relations-Workplace 5

Spring Quarter, First Year Credits
- PSYC & 100 Psychology 5
- MA 130 Medical Math 5
- BIOL 172 Human Biology Lab 1
- BTEC 266 Medical Law & Ethics 3
- Health & Fitness Distribution 3

Prerequisites for 2nd year: MA139, MA130, BIOL & 170; 2.5 in each prerequisite course; cumulative 2.5GPA.

Apply for Medical Assistant Year 2

Fall Quarter, Second Year Credits
- MA 241 MA Clinical Procedures I 10
- MA 249 MA Admin Procedures 8

Winter Quarter, Second Year Credits
- MA 242 Medication Administration 6
- MA 246 MA Laboratory Procedures 5
- HLSV 110 Basic Life Support for Healthcare 1

Spring Quarter, Second Year Credits
- MA 243 MA Clinical Procedures II 6
- MA 244 MA Externship Seminar 1
- MA 245 MA Clinical Externship 6
- MA 208 ECG 2

Pre-Nursing DTA

Emphasis: Pre-Nursing Degree: Associate in Pre-Nursing-MRP

PURPOSE: The Associate in Arts degree with Pre-Nursing emphasis is designed for students who intend to pursue a Bachelor of Science in Nursing (BSN) degree from a baccalaureate institution. The educational plan provides courses identified by both public and private colleges and universities to prepare students for further study in the field of nursing. Admission to all nursing programs in Washington State is highly competitive. Completing this program of study will prepare students to transfer with junior standing to most four-year colleges and universities in Washington State but does NOT guarantee admission to the Nursing program(s).

Students are urged to consult an advisor and refer to the admissions requirements for individual baccalaureate institutions for specific requirement and admission criteria.

Suggested Order of Classes

Fall Quarter, First Year Credits
- ENGL & 101 English Composition I 5
- MA 139 MA Medical Terminology 5

Winter Quarter, First Year Credits
- BIOL & 100 Survey of Biology 5
- CHEM & 121 Intro to Chemistry 5
- MA 140 Medical Assisting Intro 5
- BTEC 102 Skill building I 3
- Health & Fitness Distribution 3

Spring Quarter, First Year Credits
- CHEM & 131 Intro to Organic/Biochemistry 5
- ENGL & 102 Composition II 5
- PSYC & 200 Lifespan Psychology 5
- Health & Fitness Distribution 1

Fall Quarter, Second Year Credits
- HUM 110 Ethics & Cultural Values 5
- NUTR & 101 Nutrition 5
- BIOL & 241 Human A & P I 5

Winter Quarter, Second Year Credits
- SOCE 101 Intro to Sociology 5
- SPEE 110 Prin of Speech Communication 5
- BIOL & 242 Human A & P II 5
- Health & Fitness Distribution 1

Spring Quarter, Second Year Credits
- BIOL & 260 Microbiology 5
- BIOL 243 Adv Topics Human A & P 5
- Elective 5

It is strongly recommended that students confer with an advisor at their potential transfer baccalaureate institution to determine the courses that best support or may be prerequisites for their BSN program.

BIOL 243, although not required, is strongly recommended.

Pharmacy

See Pre-Pharmacy

Physical Education

Emphasis: Teacher Education Degree: Associate in Arts

PURPOSE: The Teacher Education plan is designed for students wanting to transfer to a four-year college or university to complete a bachelor’s degree. The plan is well suited for students preparing for a career in education.

Suggested Order of Classes

Fall Quarter, First Year Credits
- ENGL & 101 English Composition I 5
- MATH & 107 Math in Society 5
- PSYC & 100 General Psychology 5
- PE 229 Fitness Concepts 3

Winter Quarter, First Year Credits
- CHEM & 121 Intro to Chemistry 5
- ENGL & 102 Composition II 5
- NUTR & 101 Nutrition 5
- PE 150/152/153 1

Spring Quarter, First Year Credits
- BIOL & 170 Human Biology 5
- PE 125/140/142 1
- SPEE 110 Prin of Speech Communication 5
- Health & Fitness Distribution 5

Fall Quarter, Second Year Credits
- BIOL & 241 Human A & P I 5
- HLTH 140 Exercise & Nutrition 3
- SOC & 101 Intro to Sociology 5

Winter Quarter, Second Year Credits
- BIOL & 242 Human A & P II 5
- EDUC & 201 Intro to Education 3
- EDUC 202 Classroom Observation 2
- HLTH 130 Health & Wellness 3

Spring Quarter, Second Year Credits
- HLTH 154 First Aid/CPR 1
- PSYC & 200 Lifespan Psychology 5
- Health & Fitness Distribution 5
- Social Science Distribution 5

Emphasis: Exercise Science Degree: Associate in Arts

PURPOSE: The Associate in Arts degree with an emphasis in Exercise Science is designed for students wanting to transfer to a four-year college or university to complete a bachelor’s degree. This educational plan is well suited for students preparing for a career in exercise science.
CHEM& 161 General Chemistry w/lab I 6
ENG& 101 English Composition I 5
MATH& 146 Introduction to Stats 5
PSY& 100 Intro to Psychology 5
PE 229 Physical Fitness Concepts 3

OR
HLTH 145 Safety & Fitness 3

Winter Quarter, First Year Credits

CHEM& 121 Intro to Chemistry 5
ENG& 102 Composition II 5
NUTR& 101 Nutrition 5
PE 150/152/153 1

Spring Quarter, First Year Credits

BIOL& 170 Human Biology 5
SPEE 110 Prin of Speech Communication 5
PE 125/140/142 1
Humanities Distribution 5

Fall Quarter, Second Year Credits

BIOL& 241 Human A & P I 5
HLTH 140 Exercise & Nutrition 3
SOC& 101 Intro to Sociology 5

Winter Quarter, Second Year Credits

BIOL& 242 Human A & P 2 5
HLTH 130 Health & Wellness 3
Humanities Distribution 5

Spring Quarter, Second Year Credits

CHEM& 131 Intro to Organic/Biochemistry 5
HLTH 154 First Aid/CPR 1
PSY& 200 Lifespan Psychology 5
Social Science Distribution 5

<table>
<thead>
<tr>
<th>Pre-Chiropractic Pre-Physical Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emphasis: Pre-Chiropractic Pre-Physical Therapy</td>
</tr>
<tr>
<td>Degree: Associate in Science</td>
</tr>
</tbody>
</table>

PURPOSE: The Pre-Chiropractic, Pre-Physical Therapy program is intended for persons who plan to pursue a professional career in chiropractic or physical therapy.

The plan of study presents a challenging blend of natural and physical sciences and can be tailored to meet individual needs. If you complete the courses recommended, you are reasonably assured of being able to transfer with junior standing to most colleges and universities in Washington State. Students interested in physical therapy should be aware that a master's degree is required for entry into professional practice. You are urged to consult with your advisor as you plan your curriculum and select electives. This will allow your advisor to coordinate your program with the requirements of the institution to which you expect to transfer.

Suggested Order of Classes

Fall Quarter, First Year Credits

BIOL& 221 Majors Ecology/Evolution 5
CHEM& 161 General Chemistry w/lab I 6
ENG& 101 English Composition I 5
MATH& 107 Math in Society 5

OR
MATH& 146 Introduction to Stats 5

Spring Quarter, First Year Credits

BIOL& 223 Majors Organismal Phys 5
CHEM& 163 General Chemistry w/lab III 6
MATH& 152 Calculus II 5
Humanities or Social Science Distribution 5

Fall Quarter, Second Year Credits

MATH 118 Linear Algebra 5
PHYS& 221 Engineering Physics I 5
Humanities or Social Science Distribution 5

Winter Quarter, Second Year Credits

ENGR 203 Applied Numerical Methods 5
MATH 163 Calculus III 5
PHYS& 222 Engineering Physics II 5

Spring Quarter, Second Year Credits

MATH 212 Differential Equations 5
MATH 264 Calculus IV 3
PHYS& 223 Engineering Physics III 5
Humanities or Social Science Distribution 5

A minimum of 15 credits in Humanities and Social Science are required. See Associate in Science Degree description.

Science electives:

BIOL& 221, 222, 223 Majors;
CHEM& 261, 262, 263 Organic Chem w/lab I-III
PHYS& 221, 222, 223 Engineering Physics I-III

Pre-Dental Hygiene

Degree: Associate in Arts

PURPOSE: The Pre-Dental Hygiene program provides appropriate science and general education courses for persons transferring to either a two- or four-year dental hygiene program. You may prepare for the one-year program below by completing high school chemistry, biology, and algebra or BIOL 100 and MATH 098. Since there may be differences in prerequisites or curricula for dental hygiene programs at various colleges, you need to contact your advisor or the institution to which you will apply for specific details.

You may also be required to complete the Dental Hygiene Aptitude Test. Your advisor will help you set an educational plan to complete this program of study.

Suggested Order of Classes

Fall Quarter, First Year Credits

CHEM& 121 Intro to Chemistry 5
ENG& 101 English Composition I 5
MATH& 107 Math in Society 5

OR
MATH& 146 Introduction to Stats 5
### Pre-Pharmacy

**Emphasis:** Pre-Pharmacy  
**Degree:** Associate in Science  

**PURPOSE:** The Pre-Pharmacy program is intended for persons who plan to pursue a professional career in pharmacy. The plan of study presents a challenging blend of natural and physical sciences and can be tailored to meet individual needs.

If you complete the program outlined, you are reasonably assured of being able to transfer with junior standing to most colleges and universities in Washington State. You are urged to consult with your advisor as you plan your curriculum and select electives. This will allow your advisor to coordinate your program with the requirements of the institution to which you expect to transfer.

### Suggested Order of Classes

#### Fall Quarter, First Year

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
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<td>SOC&amp; 101</td>
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<td>PSYC&amp; 100</td>
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#### Fall Quarter, Second Year

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<td>Elective</td>
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</table>

Consult with an advisor for specific prerequisites for transfer institutions to determine the courses that best support their Dental Hygiene program.

BIOL 243, although not required, is strongly recommended.

### Pre-Medicine, Pre-Dentistry

**Emphasis:** Pre-Medicine  
**Pre-Dentistry**  
**Degree:** Associate in Science  

**PURPOSE:** The Pre-Medicine, Pre-Dentistry program is intended for persons who wish to prepare for a career in a medical profession. Medical schools do not give higher priority to a given major field of study when selecting candidates.

You are therefore encouraged to formulate a program of study which is scholastically challenging and which can be the basis for a future career or for graduate study in the event you are not admitted to a medical school. The program outlined below provides a solid foundation in the natural and physical sciences. If you complete this program of study, you are reasonably assured of being able to transfer with junior standing to most four-year colleges and universities in Washington State.

Consult with an advisor as you plan your curriculum and select electives. This will allow you to coordinate your program with the requirements of your intended major at the institution to which you expect to transfer.

### Suggested Order of Classes

#### Fall Quarter, First Year

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<tr>
<th>Course</th>
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<td>ENGL&amp; 101</td>
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<td>MATH&amp; 151</td>
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#### Spring Quarter, First Year

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#### Fall Quarter, Second Year

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#### Winter Quarter, Second Year

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#### Spring Quarter, Second Year

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
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<td>Biology/Chemistry sequence***</td>
<td>5-6</td>
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</table>

### Science electives:

- BIOL& 241, 242, 243 Human A & P w/lab I-III;  
- CHEM& 261, 262, 263 Organic Chem w/lab I-III;  
- PHYS& 221, 222, 223 Engineering Physics I-III

*****Biology majors should select Organic Chemistry or Anatomy & Physiology (BIOL& 241, 242) and Microbiology (BIOL& 260) for second year sequence.**

### Pre-Medicine, Pre-Dentistry

**Emphasis:** Pre-Medicine  
**Pre-Dentistry**  
**Degree:** Associate in Science  

**PURPOSE:** The Pre-Medicine, Pre-Dentistry program is intended for persons who wish to prepare for a career in a medical profession. Medical schools do not give higher priority to a given major field of study when selecting candidates.

You are therefore encouraged to formulate a program of study which is scholastically challenging and which can be the basis for a future career or for graduate study in the event you are not admitted to a medical school. The program outlined below provides a solid foundation in the natural and physical sciences. If you complete this program of study, you are reasonably assured of being able to transfer with junior standing to most four-year colleges and universities in Washington State.

Consult with an advisor as you plan your curriculum and select electives. This will allow you to coordinate your program with the requirements of your intended major at the institution to which you expect to transfer.

### Suggested Order of Classes

#### Fall Quarter, First Year

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<th>Course</th>
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<tr>
<td>MATH&amp; 151</td>
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<td>MATH&amp; 152</td>
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#### Fall Quarter, Second Year

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<tr>
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#### Winter Quarter, Second Year

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<td>Biology/Chemistry sequence***</td>
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#### Spring Quarter, Second Year

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
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<tr>
<td>Biology/Chemistry sequence***</td>
<td>5-6</td>
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<tr>
<td>Elective</td>
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</tbody>
</table>

### Science electives:

- BIOL& 241, 242, 243 Human A & P w/lab I-III;  
- CHEM& 261, 262, 263 Organic Chem w/lab I-III;  
- PHYS& 221, 222, 223 Engineering Physics I-III

*****Biology majors should select Organic Chemistry or Anatomy & Physiology (BIOL& 241, 242) and Microbiology (BIOL& 260) for second year sequence.**

### Science Electives

- BIOL& 221, 222, 223 Majors;  
- BIOL& 241, 242, 243 Human A & P w/lab I-III;  
- BIOL& 260 Microbiology  
- BIOL& 221, 222, 223 Engineering Physics I-III

**Some baccalaureate institutions require physics with calculus. Biology majors should select Organic Chemistry or Physics for second year sequence.**
### Pre-Veterinary Medicine
**Emphasis:** Pre-Veterinary Medicine  
**Degree:** Associate in Science

PURPOSE: The Pre-Veterinary program is intended for persons who plan to pursue a professional career. The plan of study presents a challenging blend of natural and physical sciences and can be used to meet the requirements for an animal science major at Washington State University. If you complete the program outlined below, you are reasonably assured of being able to transfer with junior standing to most colleges and universities in Washington State. You are urged to consult with your advisor as you plan your curriculum and select electives.

This will allow your advisor to coordinate your program with the requirements of the institution to which you expect to transfer.

#### Suggested Order of Classes

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>Fall Quarter, First Year</strong></td>
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<tr>
<td>BIOL&amp; 221 Majors Ecology/Evolution</td>
<td>5</td>
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<tr>
<td>CHEM&amp; 161 General Chemistry w/lab I</td>
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<td>ENGL&amp; 101 English Composition I</td>
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<td><strong>Winter Quarter, First Year</strong></td>
<td></td>
</tr>
<tr>
<td>BIOL&amp; 221 Majors Cell/Molecular</td>
<td>5</td>
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<tr>
<td>CHEM&amp; 161 General Chemistry w/lab II</td>
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<td>MATH&amp; 151 Calculus I</td>
<td>5</td>
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<tr>
<td><strong>Spring Quarter, First Year</strong></td>
<td></td>
</tr>
<tr>
<td>BIOL&amp; 223 Majors Organismal Phys</td>
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<tr>
<td>CHEM&amp; 163 General Chem w/lab III</td>
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<td>MATH&amp; 152 Calculus II</td>
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<td>CHEM&amp; 261 Organic Chemistry w/lab I</td>
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<td><strong>Winter Quarter, Second Year</strong></td>
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<tr>
<td>CHEM&amp; 262 Organic Chemistry w/lab II</td>
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<tr>
<td>MATH&amp; 146 Introduction to Stats</td>
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<td>OR MATH&amp; 163 Calculus III</td>
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<tr>
<td>SPEE 110 Prin of Speech Communication</td>
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<tr>
<td><strong>Spring Quarter, Second Year</strong></td>
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<tr>
<td>OR CHEM&amp; 263 Organic Chemistry w/lab III</td>
<td>6</td>
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<tr>
<td>Social Science or Humanities Distribution*</td>
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### Psychology
**Emphasis:** Psychology  
**Degree:** Associate in Arts

PURPOSE: The Associate in Arts with an emphasis in Psychology is for students interested in transferring to a four-year institution. This educational plan addresses issues of human behavior and thought, provides the opportunity to gain fuller understanding of one's self and others, and develops skills in human relations, communication, research, and analysis.

Emphasis in psychology provides preparation for a variety of careers, and will benefit students majoring in education, nursing, physical and occupational therapy, business, law, medicine, or other disciplines which deal with people. Consult with psychology faculty for additional information.

#### Suggested Order of Classes

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Credits</th>
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<tbody>
<tr>
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<td>PSYC&amp; 200 Lifespan Psychology</td>
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<tr>
<td>MATH&amp; 146 Introduction to Stats</td>
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<td>PSYC 210 Personality Theories</td>
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<td>OR PSYC 250 Social Psychology</td>
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<td>Science Distribution</td>
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### Sociology
**Emphasis:** Sociology  
**Degree:** Associate in Arts

PURPOSE: The Sociology program provides a better understanding of what makes people behave the way they do. The focus is on the kinds of groups that people create and on specific interactions that take place as part of the basic social processes. How group activities influence individual members are also analyzed.

The sociology program provides an adequate foundation for students to transfer to a four-year college or university. See the sociology faculty advisor for details.

#### Suggested Order of Classes

<table>
<thead>
<tr>
<th>Quarter</th>
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<tbody>
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<td>ENGL&amp; 101 English Composition I</td>
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<td>SOC&amp; 101 Intro to Sociology</td>
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<td><strong>Spring Quarter, First Year</strong></td>
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<td>ANTH&amp; 225 Cultural &amp; Ethnic Pluralism</td>
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* Recommend a language  
** Recommend ENVS& 100

Sociology majors are encouraged to develop a broad base in the social sciences to include:

- PSYC& 100 General Psychology
- PSYC& 200 Lifespan Psychology

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Programs of Study
Technology

Degree: Associate in Technology-MRP

PURPOSE: This degree is a Major Related Program designed for students transferring to Eastern, Central, or Western Washington Universities to complete one of the bachelor's science in technology degrees, such as Industrial Technology, Mechanical Technology, Applied Technology, technology education, or technology with various options (manufacturing, electronics, design, or construction).

This degree meets the requirements of the Statewide Technology DTA and Engineering Technology AS-T Track 2 (MRP) Agreement.

Elective credits should be planned with the help of an engineering advisor and be based on requirements of the specific program at the baccalaureate institution that the student plans to attend. This two-year program requires students to be calculus ready by third quarter of the first year. Students not well prepared in high school mathematics and science should plan a three-year program at Centralia College in preparation for transfer to a four-year school. The main emphasis in the first year should be to strengthen mathematics, basic sciences, communication, and reading skills.

Suggested Order of Classes

Fall Quarter, First Year Credits
ENGL& 101 English Composition I 5
ENGR 100 Intro to Engineering 2
MATH& 141 Precalculus* 5
Health & Fitness Distribution 3

Winter Quarter, First Year Credits
ENGR& 111 Engineering Graphics** 2
ENGL& 235 Technical Writing 5
MATH& 142 Precalculus II* 5
Social Science Distribution 5

Spring Quarter, First Year Credits
CS& 131 C# Programming OR
CS& 141 Java: Object Oriented Prog. 5
ENGR& 112 Engineering Graphics II** 3
MATH& 151 Calculus I 5
Humanities Distribution 5

Fall Quarter, Second Year Credits
CHEM& 161 General Chemistry w/lab I 6
PHYS& 221 Engineering Physics I 5
Humanities Distribution 5

Winter Quarter, Second Year Credits
ENGR 203 Applied Numerical Methods 5
PHYS& 222 Engineering Physics II 5
Social Science Distribution 5

Spring Quarter, Second Year Credits
SPEE 110 Speech Communication OR
SPEE 220 Theory & Practice 5
PHYS& 223 Engineering Physics III 5
Social Science Distribution 5

*Students could take MATH 135 in place of MATH& 141 and 142.
**Students may petition for an independent study or transfer equivalent credits from another college for the following: ENGR& 111 and ENGR& 112.

Television

See Media Studies

Theater

See Dramatic Arts

Welding

Emphasis: Welding Technology
Degree: Associate in Technical Arts

PURPOSE: The Welding Technology program prepares students to compete for employment as an entry-level welder in building trades, ship building, structural fabrication, automatic and semiautomatic welding, and in maintenance welding.

The Welding Technology ATA program prepares students for advanced welding skills in FCAW (Flux Cored Arc), GTAW (TIG), GMAM (MIG), and SMAW (stick) welding. Students will have the opportunity to gain WABO Welding Certification.

PROGRAM OUTCOMES: Students who successfully complete this program will have demonstrated the ability to:

• Follow industry safety practices and recognize the effects of welding on health.
• Set-up and adjust SMAW, GMAM, FCAW, GTAW, and oxy-fuel equipment and accessories.
• Apply principles and welding design practices to welding fabrication and inspection.
• Identify and make repairs to finished welds.
• Interpret information on welding blueprints.
• Apply principles of Metallurgy to welding fabrication and inspection.
• Create workable drawings to scale for reproduction.
• Perform 3-G and 4-G AWS - WABO welding code qualification tests.

Suggested Order of Classes

Fall Quarter, First Year Credits
WELD 126 Industrial Drafting OR
WELD 159 Oxyfuel & GTAW Theory 4
WELD 160 Oxyfuel & GTAW Theory lab 9
WELD 167 Metallurgy for Welders 4

Winter Quarter, First Year Credits
MATH 095 Basic Math (if needed) 1-5
WELD 161 Arc Welding Theory 4
WELD 162 Arc Welding lab 9

Spring Quarter, First Year Credits
TMAH 116 Industrial Math 5
WELD 159 Oxyfuel & GTAW Theory 4
WELD 164 MIG Welding Theory 4
WELD 165 MIG Welding lab 6
WELD 166 Shop Skills for Welders 3

Fall Quarter, Second Year Credits
WELD 267 Advanced Fab. & Weld Theory 5
WELD 268 Advanced Fab. & Weld lab 6

Winter Quarter, Second Year Credits
WELD 270 Advanced Fab. & Weld lab 6

Spring Quarter, Second Year Credits
HLTH 145 Safety & Fitness 3
WELD 269 Advanced Fab. & Weld Theory 4
WELD 270 Advanced Fab. & Weld lab 6

*Students interested in the BASM program should take ENGL& 101.
Winter Quarter, First Year  Credits  
WRT  105  Writing in the Workplace  5  
MATH  116  Industrial Math  5  
WELD  160  Arc Welding Theory  4  
WELD  162  Arc Welding lab  9  23  

Spring Quarter, First Year  Credits  
DET  166  Shop Skills for Welders  3  
WELD  126  Industrial Drafting  2  OR  
CAD  115  CAD for Industry  2  
WELD  164  MIG Welding Theory  4  
WELD  165  MIG Welding lab  6  15  

Fall Quarter, Second Year  Credits  
WELD  265  Adv. Arc Welding Theory  4  
WELD  266  Adv. Arc Welding lab  9  
WELD  271  Blueprint Reading for Welders  4  17  

Completion of HR 110 Human Relations-Workplace (5 credits) is required and may be completed any quarter.

**Emphasis:**  Welding (Evening)  
**Degree:**  Certificate of Completion  
**PURPOSE:** Students who complete the following 20 credits will be awarded a certificate of completion in Welding Fundamentals (this certificate can be completed entirely in the evening). These courses will be offered in the evening every fall, winter, and spring quarters.  

**PROGRAM OUTCOMES:** Students who successfully complete this program should be able to:  
- Follow industry safety practices and recognize the effects of welding on health.  
- Set-up and adjust SMAW, GMAW, FCAW, GTAW, and oxy-fuel equipment and accessories.  
- Identify and make repairs to finished welds.  
- Perform 3-G and 4-G AWS- WABO welding code qualification tests.  

**Suggested Order of Classes**

Fall Quarter  
WELD  180  Oxyacetylene and GTAW  5  
WELD  181  Shielded Metal Arc Welding  5  
WELD  182  Gas Metal Arc Welding  5  
WELD  285  Arc Welding Certification  5  

Winter Quarter  
WELD  180  Oxyacetylene and GTAW  5  
WELD  181  Shielded Metal Arc Welding  5  
WELD  182  Gas Metal Arc Welding  5  
WELD  285  Arc Welding Certification  5  

Spring Quarter  
WELD  180  Oxyacetylene and GTAW  5  
WELD  181  Shielded Metal Arc Welding  5  
WELD  182  Gas Metal Arc Welding  5  
WELD  285  Arc Welding Certification  5  

Summer Quarter  
WELD  180  Oxyacetylene and GTAW  5  
WELD  181  Shielded Metal Arc Welding  5  
WELD  182  Gas Metal Arc Welding  5  
WELD  285  Arc Welding Certification  5  

When students complete WELD 180, 181, 182, 285 for a total of 20 credits, they will receive a certificate of completion.
Course Descriptions

Distribution Requirements:
Courses meeting distribution requirements are designated after the course titles in the following manner.
C = Communication Skills
D = Diversity
H = Humanities
M = Math/Quantitative Skills
S = Natural Science
SS = Social Science
HF = Health and Fitness
Courses which are part of a professional/technical program and which might not be considered for transfer by four-year colleges are designated after the course title in the following manner:
PT = Professional/Technical

ACCOUNTING

ACCT 110
Practical Accounting I (3) (PT)
Emphasizes fundamental principles of double-entry accounting as applied to bookkeeping systems. The course focuses on the development of the accounting cycle for small businesses and professional organizations.

ACCT 120
Practical Accounting II (3) (PT)
Accounting theory as applied to bookkeeping systems of small businesses and professional organizations. Focuses on accounting for payroll, merchandise, sales and purchases, cash receipts and payments, preparation of the worksheet and annual financial statements. Prerequisite: ACCT 110.

ACCT 130
Basic Computer Accounting (3) (PT)
Accounting experience on a personal computer, using QuickBooks Pro software. Reinforces procedures learned in ACCT 110 and 120 or ACCT & 201. Students use QuickBooks Pro software to record transactions, prepare financial statements, and payroll. Prerequisite: ACCT & 201 or ACCT 110 and 120.

ACCT & 201
Principles of Accounting I (5)
This course emphasizes fundamental principles of double-entry accounting and the preparation of financial statements for sole proprietorships. Prerequisite: MATH 098 or equivalent or consent of instructor.

ACCT & 202
Principles of Accounting II (5)
This course emphasizes accounting for partnerships and corporations. Topics include, but are not limited to, accounting for fixed and intangible asset, payroll, stock, bonds, the statement of cash flows, and financial statement analysis. Prerequisite: ACCT & 201.

ACCT & 203
Principles of Accounting III (5)
This course emphasizes accounting for departments and branches, cost accounting in a manufacturing environment cost-volume-profit analysis, budget preparation and analysis, standard costs, segment reporting, differential costs and revenues, and capital budgeting decisions. Prerequisites: ACCT & 201 and 202.

ACCT 210
Introduction to Audit (5)
An introduction to the audit environment as it applies to the professional spectrum of financial accounting and reporting. Prerequisite: ACCT & 203.

ACCT 240
Business Entity Tax (5)
This course focuses on the determination and disposition of taxation as it applies to business entities, as well as introducing elements of tax planning and research. Prerequisite: ACCT & 203.

ACCT 260
Individual Income Taxes (5)
Introductory course in taxation emphasizing the preparation of individual federal income tax returns. Course focuses on history, economics, social aspects, equity, and structure of the federal income tax laws of the United States. Prerequisite: ACCT & 201.

ACCT 270
Payroll Accounting (3)
ACCT 270 is an introductory course covering aspects of the Fair Labor Standards Act, the Social Security Act, Federal Income Tax withholding laws, and other laws affecting payroll operations and employment practices. Prerequisite: ACCT & 201.

ACCT 285
Bookkeeper Certification Course (5)
This is the capstone course for accounting students participating in the Associate of Technical Arts (ATA) program and culminating in the student candidacy of either the Certified Bookkeeper (CB), Registered Tax Return Preparer (RTRP), or both. Prerequisite: ACCT & 203, ACCT 240.

ADULT BASIC EDUCATION

ABE 011-014 and 16
English as a Second Language I-V (1-10)
Students demonstrate knowledge of sound-letter relationships by listening, speaking, reading, and writing the English alphabet. They become familiar with US currency and recognize common forms of print found in the home and environment. Prerequisite: CASAS appraisal test.

ABE 015
English as a Second Language Lab (1-6)
Students will improve listening, speaking, and reading skills while participating in computer assisted learning activities, conversation, and focused listening activities and use of multimedia that will aid them in becoming independent learners. Corequisite: recommended in conjunction with ABE 011, 012, 013, 014, and 016.

ABE 018
ABE Integrated Level I (1-15)
Designed for students to learn and/or review beginning grammar, punctuation, spelling, sentence structure, paragraph development, reading comprehension and math skills in preparation for passing of the GED exam. Prerequisite: CASAS appraisal score 200 and below.

ABE 020
Adult Basic Education Orientation (1)
Includes individual goal setting. An introduction to educational programs offered at CC, placement testing, advising, and educational planning. Prerequisite for all new students to the ABE/ESL programs.

ABE 021, 22, 23
Adult Basic Education Level II Reading, Writing, and Math (1-5)
Students will complete Level 2A reading competencies mandated by the Washington State Basic Skills Competency Indicators and CASAS assessment in lab, lecture/lab setting. Prerequisite: CASAS score of 200-210.

ABE 028
ABE Integrated Level II (1-15)
Designed for students to learn and/or review beginning grammar, punctuation, spelling, sentence structure, paragraph development, reading, comprehension and math skills in preparation for passing of the GED exam. Prerequisite: CASAS appraisal score 201 to 210.
Course Descriptions

**ABE 030**  
*Life and Work Strategies (1-5)*  
A life and work skills overview for ABE students. Emphasis is placed on developing skills in learning to learn, communication, thinking, personal management, group effectiveness and leadership. Prerequisite: 2.0 or above on TABE reading test.

**ABE 031, 032, 033**  
*Adult Basic Education Level III Reading, Writing, and Math (1-5)*  
Students will study Level 3 reading competencies mandated by the Washington State Basic Skills Competency Indicators and CASAS assessment in lab, lecture, or lecture/lab setting. Prerequisite: CASAS score of 211-220.

**ABE 036**  
*ABE II Level II Writing (1)*  
This course is designed to meet the needs of adults whose English skills are between the fourth and seventh grade level. Assessment will determine each student’s starting level. This course is not designed to be completed within one quarter’s time span. Students will work only in those areas where they need assistance. Washington State Core Competencies including practical living applications will be emphasized. Prerequisite: successful completion of ABE 022 or placement score between 4.0 and 6.9 on TABE.

**ABE 038**  
*ABE Integrated Level III (1-15)*  
Designed for students to learn and/or review intermediate grammar, punctuation, spelling, sentence structure, paragraph development, reading comprehension and math skills in preparation for passing of the GED exam. Prerequisite: CASAS appraisal score 211 to 220.

**ABE 039**  
*Job Readiness (1-3)*  
Students compare aptitudes, interests and skills against current job market. Emphasis is placed on resume development, job applications and the interview process. Prerequisite: 2.0 or above on the TABE reading test.

**ABE 041, 042, 043**  
*Adult Basic Education Level IV Reading, Writing, and Math (1-5)*  
Students will study Level 4 reading competencies mandated by the Washington State Basic Skills Competency Indicators and CASAS assessment in lab, lecture, or lecture/lab setting. Prerequisite: CASAS score of 221-235.

**ABE 046**  
*Written and Oral Communication (1-5)*  
Class participants enhance written and oral communication skills through the introduction of computer skill development and introductory communication skills for the workplace. Prerequisite: CASAS testing with a minimum score of 210.

**ABE 048**  
*ABE Integrated Level IV (1-15)*  
Designed for students to learn and/or review advanced grammar, punctuation, spelling, sentence structure, paragraph development, reading comprehension and math skills in preparation for the GED exam. Prerequisite: CASAS appraisal score 221 to 235.

**ABE 051, 052, 053**  
*Adult Basic Education Level V Reading, Writing, and Math (1-5)*  
Students will study Level 5 reading competencies mandated by the Washington State Basic Skills Competency Indicators and CASAS assessment in lab, lecture, or lecture/lab setting. Prerequisite: CASAS score of 236-245.

**ABE 058**  
*Integrated Level V (1-15)*  
Designed for students to learn and/or review advanced grammar, punctuation, spelling, sentence structure, paragraph development, reading comprehension and math skills in preparation for the GED exam. Prerequisite: CASAS appraisal score 236 to 245.

**ABE 060**  
*Key Skills for Success (1-10)*  
This course will provide students with targeted skills in areas that will ease their transition into academic and vocational courses or into employment and training. Targeted skills include coursework that addresses personal management, interpersonal communication, career information, college resources, computer basics and help for success within vocational content areas. The instruction in these areas is pre-academic or pre-vocational with the purpose of creating a bridge for student to traditional college courses and services. Prerequisite: CASAS testing.

**ABE 061, 062, 063**  
*Adult Basic Education Level VI Reading, Writing, and Math (1-5)*  
Students will study Level 6 reading competencies mandated by the Washington State Basic Skills Competency Indicators and CASAS assessment in lab, lecture, or lecture/lab setting. Prerequisite: CASAS score of 246+

**ABE 068**  
*ABE Integrated Level VI (1-15)*  
Designed for students to learn and/or review advanced grammar, punctuation, spelling, sentence structure, paragraph development, reading comprehension and math skills in preparation for the GED exam. Prerequisite: ABE 058, completion of 3 GED tests or CASAS 246-255.

**ABE 085**  
*Contemporary World Problems (1-5)*  
Designed to improve analysis, synthesis, evaluation, and application of text in reading, writing, and thinking within the context of contemporary world problems.

**ABE 086**  
*Pacific NW History (1-5)*  
Designed to improve analysis, synthesis, evaluation, and application of text in reading, writing, and thinking within the context of the U.S. and Northwest history.

**ABE 087**  
*US Government & Civics (1-5)*  
Designed to improve analysis, synthesis, evaluation, and application of text in reading, writing, and thinking within the context of U.S. Civics.

**ABE 088**  
*US History (1-5)*  
Designed to improve analysis, synthesis, evaluation, and application of text in reading, writing, and thinking within the context of U.S. Northwest history.

**ABE 089**  
*Health and Nutrition (1-5)*  
A review of nutrition and a healthy diet to enhance one’s overall health.

**ABE 090**  
*Health and Exercise (1-5)*  
A review of nutrition and exercise to enhance one’s overall health.

**ABE 092**  
*Critical Reading/Writing (1-5)*  
Course is designed to improve analysis, synthesis, evaluation, and application of text in reading, writing, and thinking within the context of U.S. Northwest history.

**ABE 093**  
*Fine Arts (1-5)*  
Course is designed to improve analysis, synthesis, evaluation, and application of text in reading, writing, and thinking through exploration of the arts.

**ABE 094**  
*Science Literacy (1-5)*  
Course is designed to improve analysis, synthesis, evaluation, and application of text in reading, writing, and thinking through exploration of the general fields in science.

**ABE 095**  
*Occupational Education (1-5)*  
Course is designed to improve analysis, synthesis, evaluation, and application of text in reading, writing, and thinking through exploration and implementation of career choices.
ANIMALS AND TECHNOLOGY

American Sign Language I (5)
An introductory course in American Sign Language (ASL). Topics covered include visual awareness, vocabulary, basic grammatical principles, comprehension skills, and the historical overview of the deaf community and its language.

American Sign Language II (5)
Enables students to better use and comprehend ASL by building vocabulary, improving skills of signing, reading of signs, and understanding of the deaf community. Prerequisite: ASL 121 or instructor permission.

American Sign Language III (5)
An in-depth study of American Sign Language applications including conversation regulators, classifiers and locatives, directional verbs and cultural information. Prerequisite: ASL 122.

American Sign Language IV (5)
Express yourself using not only hands, but the whole body. Emphasizes the beauty of the language of signs; increasing flexibility, reducing inhibitions, and accuracy or expression of the concept as distinct from the words. Prerequisite: ASL 123 or permission of instructor.

ANTHROPOLOGY

Survey of Anthropology (SS) (D) (5)
Participate in a four-field approach to the study of the diversity of human and human cultures. Explore subfields of anthropology: social/cultural anthropology, physical/biological anthropology, archaeology, and anthropological linguistics.

Cultural Anthropology (SS) (D) (5)
Explore the whole of the human social and cultural world by means of investigating other people’s beliefs and behaviors. Through a cross-cultural perspective we attempt to understand others in order to better learn about ourselves.

Indians of North America (SS) (D) (5)
Investigate cultural systems of beliefs, behaviors and technology practiced by native North American peoples. Learn about subsistence patterns, exchange and trading relationships, marriage and the family, political organization, the life cycle, religion, belief and knowledge.

Cultural & Ethnic Pluralism in Contemporary Society (SS) (D) (5)
Examine ethnicity, ethnic identity, and cultural characteristics of ethnic and social groups in North America and around the world. Understand the relationship between social organization and forms of social, economic, and political domination and subordination.

Myth, Ritual, and Magic (SS) (D) (5)
Experience the supernatural and religious beliefs of peoples and cultures. Examine different modes of constructing “reality” and “belief” as well as their methods of ritual application in societies worldwide.

ART

Art Appreciation (H) (5)
Introduction to the visual arts. Painting, drawing, sculpture and architecture will be examined as art forms and for their role in human history. Students will be introduced to a variety of art media and techniques.

Drawing (H) (5)
Study the fundamentals of drawing: composition, technique and manipulation of materials, exploration of subject matter. Lectures on contemporary and historical artists support drawing labs.

Drawing (5)
Intermediate level study of the fundamentals of drawing: composition, technique and manipulation of materials, exploration of subject matter. Lectures on contemporary and historical artists support drawing labs. Prerequisite: ART 102 or instructor permission.

Drawing (5)
Advanced level of study of the fundamentals of drawing: composition, technique and manipulation of materials, exploration of subject matter. Lectures on contemporary and historical artists support drawing labs. Prerequisite: ART 102, 103 or instructor permission.

Design (4)
This course is an introduction to two-dimensional design. Assignments include a variety of subject matter and materials. No prerequisites.

Sculpture (4)
An introduction to the fundamentals of three-dimensional design. Assignments include a variety of subject matter and materials. All are welcome.

Computer Graphics (5)
An overview of computer programs used to create images for print and screen, still and moving. Gain basic skills in design and programs by creating digital art work in a series of assignments.

Graphic Design I (5)
Problem solving in basic type and graphic design. Sequences of studio projects demonstrate students’ ability to create, design and prepare art for reproduction. Lectures explore graphic design as an art form and as a business.

Typography (5)
This course covers the history of type, designing with type, reproduction of type. Type is the foundation for graphic design. Students will apply knowledge gained in a series of studio projects. Prerequisite: ART 110 or instructor permission.

Introduction to Fibers (H) (5)
An introduction to fiber art history and techniques with an emphasis on traditional, hand-manipulated processes such as basketry, felting, dyeing and simple loom work.

Black & White Photography (H) (5)
Fundamentals of photography and camera handling with emphasis on understanding and using photography as an expressive art form. The course will cover basic camera operations, black and white darkroom processes familiarity with materials and equipment.

Digital Photography (H) (5)
An introduction to digital photography as an expressive art form. Students will explore the creative and technical requirements of digital imaging, as well as examine the contributions of contemporary fine artists working in this medium. Prerequisite: basic computer experience required.

Cooperative Work Experience (1-12) (PT)
See description under COOP 190 for additional information.
ART 200
Art History: Ancient (D) (H) (5)
A survey of the development of art in Europe, the Near East and Asia from prehistoric times through the 14th century CE. The course will explore developments in architecture, painting, sculpture and other art forms.

ART 201
Art History: 15th-17th Century (D) (H) (5)
A survey of the development of art in Pre-Columbian America, Africa and 15th-17th century Europe. The course will explore developments in architecture, sculpture, painting and other art forms.

ART 202
Art History: 18th-20th Century (D) (H) (5)
A survey of the history of art in 15th-20th century Asia and 18th-20th century Europe. Historical developments in architecture, sculpture, painting and other art forms will be examined.

ART 220
Computer 3-D Modeling (3)
This is an advanced computer-based course for students interested in learning surface and solid modeling techniques for future use in applications such as mechanical design, game development, and animation. Instructor permission is required.

ART 269
Portfolio (3)
Development and presentation of an individual portfolio which meets professional standards of excellence for job potential. Open to art and photography students. Prerequisite: instructor permission.

ASTRONOMY

ASTR 125
The Solar System (S) (3)
Brief overview of the history and scope of astronomy, followed by a study of our own solar system including its sun, planets, moons, asteroids, and comets, and its origin. Some writing and computation is expected. Prerequisite: completion of MATH 098 with a 2.0 or above.

ASTR 126
Stars and Galaxies (S) (3)
Introduction to the astronomy of stars and galaxies including nuclear processes, spectroscopy, stellar evolution, black holes, quasars, and an introduction to cosmology. Some writing and computation are expected.

ASTR 127
The Solar System & the Universe (S) (5)
Brief overview of the history and scope of astronomy, followed by a systematic study of the solar system, stars, galaxies, and the universe. Prerequisite: one year high school algebra or MATH 098.

ASTR 128
Observational Astronomy (S) (2)
Introduces the night sky as seen with the naked eye and a telescope. Lectures, labs, and observations provide astronomical concepts and hands on applications of these concepts. Transportation to Onalaska’s Observatory is the student’s responsibility.

BIOLOGY

BIOL& 100
Survey of Biology w/lab (S) (5)
Surveys the structures and functions of cells and organisms. Explores basic genetic and evolutionary processes, and outlines the characteristics of life, its history, and biodiversity.

BIOL& 170
Human Biology (S) (5)
Presents the structure, organization, and life functions of the human cells, tissues, and organ systems: development from embryo to adult; aging and disease; human evolution and ecology.

BIOL 172
Human Biology Lab (1)
Investigate the structure and function of the integumentary, skeletal, muscular, nervous, sensory, endocrine, cardiovascular, immune, respiratory, digestive, urinary, and reproductive systems. Prerequisite: BIOL& 170.

BIOL 180
Regional Biodiversity (5)
Explore the biological diversity of a region. Identify the dominant organisms, describe their interactions with their physical, chemical, and biological environments. Focus on field trips. Prerequisite: instructor permission.

BIOL 190
Cooperative Work Experience (1-5) (PT)
See description under COOP 190 for additional information.

BIOL& 221
Majors Ecology/Evolution w/lab (S) (5)
Ecology, evolution, taxonomy and phyleeny, diversity of life forms. First course in a three-quarter series (BIOL& 221, 222, 223). Prerequisite: high school biology or BIOL& 100 and MATH 098 or equivalent.

BIOL& 222
Majors Cell/Molecular w/lab (S) (5)
Metabolism and energetics, structure and function of biomolecules, Mendelian and molecular genetics, biotechnology, cell structure and function. Second course in a three-quarter series (BIOL& 221, 222, and 223). Prerequisites: HS biology or BIOL& 100; CHEM& 121 or CHEM& 161 recommended.

BIOL& 223
Majors Organismal Physiology w/lab (S) (5)
Plant and animal comparative anatomy and physiology. Final course in a three-quarter series (BIOL& 221, 222, and 223). Prerequisite: BIOL& 221 or 222 or permission of instructor.

BIOL& 241(formerly ZOOL 251)
Human A & P 1 w/lab (S) (5)
Investigate the interactions between structures (anatomy) and function (physiology) essential for human health. Investigate organization and function of macromolecules, membranes and the cell, tissues, integument, skeleton and articulations, skeletal muscles, nervous system and the brain. Prerequisite: HS biology and chemistry or BIOL& 100 or BIOL& 170 and CHEM& 121.

BIOL& 242
Human A & P 2 w/lab (S) (5)
Investigate the interactions between structure (anatomy) and function (physiology) essential for human health. Investigate organization and function of the sensory, endocrine, cardiovascular, immune, respiratory, digestive, urinary, and reproductive systems. Prerequisite: BIOL& 241 or instructor permission.

BIOL 243
Adv. Topics Human A & P w/lab (S) (5)
Investigate the inheritance of human characteristics and the regulation of gene expression. Trace the development of major organ systems in utero and fetal development. Trace the physiological and anatomical transformations in older individuals. Prerequisite: BIOL& 242 or instructor permission.

BIOL 250
Introduction to Marine Biology w/lab (S) (5)
Introduction to physical and chemical factors affecting marine organisms: the various marine habitats, the animals and plants which inhabit them, and human exploitation of marine resources.

BIOL& 260
Microbiology w/lab (S) (5)
Understand the morphology, physiology, metabolism, genetics, and evolution of microbes. Explore the interactions of pathogenic microbes and human health. Review processes that inhibit microbial disease. Develop skills of culturing, identifying, and manipulating microbes. Prerequisite: one college chemistry course.

BIOL 270
Research in Biology (1-12)
Design a research project, set up experiments, collect data in the lab or in the field, and/or analyze data. Each credit hour requires 33 hours of activity per quarter. Prerequisite: instructor permission.
BOTA 110
Survey of Botany w/lab (5) (S)
Basic concepts in plant biology for non-majors, with emphasis on plant diversity and how plants grow and reproduce. Modern issues concerning agriculture and conservation will be discussed.

BOTA 113
Plant Identification & Classification w/lab (5) (S)
The identification and classification of flowering plants of the Northwest with emphasis on plant families of western Washington. Includes field trips during lab sessions with walking on and off trails.

BOTA 150
Dendrology-Trees in Our Environment w/lab (5) (S)
Introduction to biology through trees, from cells and evolution through tree ecology and urban trees. Identification of trees will be featured, including both Pacific Northwest natives and common street trees. Includes field trips during lab sessions with walking on and off trails.

BUS& 101
Intro to Business (5)
Introduction to the world of business. Emphasis will include functions of business, management, types of business ownership, human resources, production, marketing, ethics, and the role of accounting.

BUS 121
Business Math (5) (PT)
Surveys the commercial application of mathematics designed to assess and analyze business activities and their effect on cost, profitability and overall performance. Prerequisite: MATH 096 or equivalent test score.

BA 190
Cooperative Work Experience (1-12) (PT)
See description under COOP 190 for additional information.

BUS& 201
Business Law (5)
Introduction to state and federal constitution, laws and procedures including international trade, crimes, torts, contracts, sales, property, bankruptcy, securities, consumer protection, employment, and debtor creditor relationships. The relationship between ethics and law will be discussed.

BUS 215
Principles of Finance (5)

BUS 220
Marketing (5)
A broad overview of the market structure and marketing philosophies currently being used in business. Includes a description, analysis, and evaluation of the marketing system. Each student will conduct a marketing research project.

BUS 232 (formerly BA 132)
Entrepreneurship (5)
Experience the challenge and reward of planning a new business. Topics include: development of a business plan, failure factors in small businesses, capital, accounting, financial statements, marketing, human resource management, legal/ regulatory issues and management principles. Prerequisite: BUS& 101; ACCT& 201, BUS 220.

BUS 240
Negotiation (5)
Focuses on the bottom line, people, habits and tools that drive results fro any business. Students will learn practical skills to create mutually beneficial and profitable long-term relationships with customers, vendors, and peers.

BUS 275
Principles of Management (5)
Management styles and effective management of personnel from the manager's side of business. The course is built around the five traditional functions of management and exploring management problems and practices. Real-life case problems used.

BUS 2102
Keyboarding For Computing (2) (PT)
Operation of the standard alphabetic keyboard and the 10-key pad. Upon completion of this class, students should be able to keyboard at 20wpm and operate by touch a 10-key pad at 80dpm.

BTEC 101
Keyboarding for Business (3) (PT)
For beginning students. Learn to keyboard to 25 wpm by touch. Develop speed, accuracy and apply basic word processing techniques to letters, reports and tables.

BTEC 102
Keyboard Skillbuilding I (3) (PT)
Individualized skill-building program for increasing keyboarding speed and improving accuracy. Upon completion of this course, students should be able to type at a minimum of 35wpm with no more than one error per minute. Prerequisite: BTEC 101 and typing at 35wpm or instructor permission.

BTEC 107
Electronic Medical Records (3) (PT)
Provides an overview of medical records as legal documents. Topics include the make-up of an electronic medical record, charting methods, and retention and storage of records. Course includes computerized medical record work. Prerequisite: keyboarding skill, medical terminology.

BTEC 110
Business English (5) (PT)
Editing skills including grammar, punctuation, proofreading, and spelling for office correspondence. A basis for machine transcription, business communication, and office procedures.

BTEC 115
Machine Transcription I (4) (PT)
Introduction to machine transcription: operation of transcribing machines and integration of language and keyboarding skills in the preparation of mail able transcripts. Prerequisite: 2.0 or above in BTEC 110 and typing speed of 40wpm.

BTEC 120
Applied Business Math (3) (PT)
A brief review of arithmetic fundamentals including decimals, fractions, percent’s and their applications to a wide range of business problems. Prerequisite: MATH 096 or equivalent test score.

BTEC 160
Records Confidentiality - HIPAA (1) (PT)
Overview of general confidentiality, considerations, and specific rules of the 1966 HIPAA law for all health care/mental health professions. Explains and illustrates the law, with extensive review of security/privacy of patient information and records.

BTEC 190
Cooperative Work Experience (1-12) (PT)
See description under COOP 190 for additional information.

BTEC 191
Work Experience Seminar (1) (PT)
Topics include professional image, business etiquette, sexual harassment, resolving conflict, and diversity in the workplace. Must be taken prior to or concurrently with Cooperative Work Experience.
BTEC 203
Keyboard Skillbuilding II (3)
Using a computer for individualized, advanced skill-building for students who have already had BTEC 102 or equivalent and who need or want to increase keyboarding speed and improve accuracy. Prerequisite: BTEC 102 or equivalent. Typing speed of 35 wpm.

BTEC 205
Microsoft Outlook (1)
Course uses Microsoft Outlook for e-mail, scheduling meetings, maintaining appointment calendars, managing contacts, and tasks. Prerequisite: Windows experience and keyboarding skills.

BTEC 210
Word I (5)
Class covers Word in depth: document preparation, formatting, graphics, WordArt, columns, sorts, charts, mail merge, and styles. Students will format business documents to business standards. Prerequisite: keyboard skill of 35 wpm or instructor permission.

BTEC 212
Access I (3)
An introduction to Microsoft Access. Students will learn basic concepts of database software and be able to integrate Access with Word and Excel. Prerequisite: keyboard speed of 30 wpm, Word I and Excel or instructor permission.

BTEC 214
Excel (5)
A hands-on approach for beginning through intermediate level applications of Excel spreadsheet using a variety of business applications. Prerequisite: word processing, windows, keyboard skills.

BTEC 215
Excel Module (1)
Introduction to spreadsheet. Upon completion of this course, students should have basic knowledge of a spreadsheet program. Prerequisite: keyboarding speed of 30 wpm and Windows class or instructor permission.

BTEC 218
Desktop Publishing (4)
Course covers desktop publishing terminology and concepts to plan, create, and design professional-looking businesses and personal documents. Prerequisite: Word I, keyboard speed of 35 wpm.

BTEC 219
Word II (4)
Course covers footnotes, endnotes, citations, bibliographies, table of contents, indexes, linked textboxes, multilevel lists, building blocks, fill-in forms, macros, outlines, Quick Parts, templates formal reports. Prerequisite: Word I, keyboard speed of 35 wpm.

BTEC 220
Ten-Key Calculator (1)
Touch control of 10-key pad with emphasis on speed and accuracy. Addition, subtraction, multiplication, and division techniques used in solving business problems. Basic or Business Math recommended first.

BTEC 221
Business Communications (5)
Applying principles of effective communication in written and oral business communication: letters, memos, reports, and presentations. Upon completion students should be able to produce effective positive, negative, and routine letters, memos, and reports and graphs. Prerequisite: BTEC 110 or ENGL& 101 or COMM 101, or instructor permission.

BTEC 222
Microsoft Office-PowerPoint Module (1)
An introduction to Microsoft PowerPoint. Upon completion of this course students should have beginning knowledge of a presentation program. Prerequisite: keyboard speed of 35 wpm, Windows Workstation OS or instructor permission.

BTEC 224
Office Procedures (5)
Topics include: professional image and address, employer expectations, human relations, receptionist techniques, telephone procedures, processing mail, business ethics, job safety, office supplies and equipment, travel and meeting arrangements, reprographics, financial activities, PC cleaning/care, internet and email. Prerequisite: A grade of 2.0 in BTEC 110 and BTEC 103 or instructor permission.

BTEC 225
Excel II (3)
Hands on approach to intermediate through advanced level of Microsoft Excel spreadsheet. A variety of business applications are used during the course. Prerequisite: Excel I or instructor permission.

BTEC 226
File Management (1)
Topics include: file management, text search, printing, spell checking, basic word processing, and word processing on a network. Prerequisite: BTEC 102 or equivalent.

BTEC 233
Filing (3)
Basic principles and procedures of records storage and management. Practice indexing, coding, and filing for alphabetic, numeric, subject, geographic filing systems, and introduction to forms design.

BTEC 240
Legal Terminology (3)
Development of a legal vocabulary with emphasis on definitions and spelling. Upon completion of this course students should be able to recognize and use basic terminology used in the legal field.

BTEC 241
Legal Office Procedures (5)
Topics include calendars, billing, document production, court structure, research, family law, wills and probate, criminal law, professional image, and receptionist techniques. Upon completion students should be prepared for work in an entry level position. Prerequisite: BTEC 110, BTEC 240, BTEC 101.

BTEC 260
Medical Terminology (4)
Development of a medical vocabulary with emphasis on definition and spelling. Upon completion of this course students should be able to recognize spoken medical terms, analyze word parts for meaning, and understand basic medical terminology.

BTEC 261
Medical Office Procedures (5)
Topics include professional image, medical ethics and law, safety, patient records, obligations to the patient, employer, and etc. Designed to explain ethical/legal requirements regarding patient records and history.

BTEC 262
Medical Transcription (4)
A review of medical terminology and the preparation of medical transcripts. Prerequisite: 2.0 or above in BTEC 102, 110, and 260 and typing speed of 40 wpm.

BTEC 265
Medical Billing (5)
This course provides a basic understanding of the reimbursement process for those who wish to work as a medical insurance billing specialist in an outpatient setting or independent billing service. Prerequisite: BIOL& 170, BTEC 260. Corequisite: ZOOL 221.

BTEC 266
Medical Law and Ethics (3)
Overview of medical law/ethics for healthcare professionals in various settings: billing/coding, transcription, phlebotomy, etc. Designed to explain ethical/legal obligations to the patient, employer, and health worker and clarify confidentiality requirements regarding patient records and history.

CHEMISTRY
CHEM& 121
Introduction to Chemistry w/ lab (5)
Survey of chemistry with applications in everyday life: atoms, bonds, reactions, and calculations. Prerequisite: one year HS algebra or MATH 098.
CHEM& 131
Intro to Organic/Biochemistry w/lab (5) (5)
A survey of organic chemistry and biochemistry. Prerequisite: CHEM& 121.

CHEM& 161
General Chemistry w/lab I (5) (6)
First quarter of a 1-year course of general chemistry for science and engineering majors: Atoms, molecules and ions; stoichiometry; aqueous solution reactions; gases; energy; electronic structure; periodic table. Prerequisite: CHEM& 121 or HS chemistry AND MATH 099.

CHEM& 162
General Chemistry w/lab II (5) (6)
The periodic table, chemical bonding, introduction to organic chemistry, intermolecular forces and liquids and solids, physical properties of solutions and kinetics. Prerequisite: CHEM& 161, MATH 099 or equivalent.

CHEM& 163
General Chemistry w/lab III (5) (6)
Chemical equilibrium, acids and bases, solubility equilibria, thermodynamics, redox reactions, coordination chemistry, nuclear chemistry and polymers. Prerequisite: CHEM& 162.

CHEM& 261
Organic Chemistry I w/lab (5) (6)
General physical and chemical properties of simple aliphatic and aromatic compounds. Prerequisite: CHEM& 161, 162, 163 or instructor permission.

CHEM& 262
Organic Chemistry w/lab II (6)
Complex organic reactions: alkenes; alkynes; aromatics, aldehydes, ketones. Spectroscopy. Prerequisite: CHEM& 261 or equivalent.

CHEM& 263
Organic Chemistry w/lab III (6)
Complex organic reactions: acids, amines; carbanions, heterocyclic; polyfunctional compounds. Prerequisite: CHEM& 262 or equivalent.

CHEM 270
Research in Chemistry (1-12)
Design a research project, set up experiments, collect data in the lab or in the field, and/or analyze data. Each credit hour requires 33 hours of activity per quarter. Prerequisite: instructor permission.

**CHILD & FAMILY STUDIES**

CFS 110
Learning and Playing (1-2) (PT)
Parents learn about child development and how to apply that knowledge in their parenting role. Children attend classes with parents and participate in learning activities.

CFS 120, 121, 122
Learning with Infants and Toddlers (2) (PT)
Parents learn about child development and how to apply that knowledge in their parenting role. Children attend classes with parents and participate in learning activities, music, discussion and art.

CFS 130, 131, 132
Positive Parenting I - III (1-4) (PT)
Students are introduced to parenting skills to use with children through classroom participation, lecture, and discussion.

CFS 135
Winning at Fatherhood (2) (PT)
Positive parenting techniques for fathers. Learn to build positive relationships with your children.

CFS 140, 141, 142
Positive Parenting IV-VI (1-4) (PT)
Students develop and practice parenting skills with children through classroom participation, lecture, and discussion.

CFS 145
Foster Parents Cope (3) (PT)
Provides an integrated training program for new and experienced foster parents. Areas of focus include key concepts of foster parenting, relationships, separation and visitation, child development, discipline, and self-esteem.

CFS 146
Parents and Adolescents (3) (PT)
Parents and teens strengthen their relationship through positive communications, self-awareness, feelings, problem solving, family rules and consequences, and age appropriate expectations and independence.

CFS 147
Family/Life Management (1-4) (PT)
Learn to effectively balance family and work.

CFS 150, 151, 152
Positive Parenting VII - IX (1-4) (PT)
Students demonstrate parenting skills from previous levels through classroom participation, lecture and discussion.

**CHINESE**

CHIN& 121
Chinese I (D) (H) (5)
Learn the fundamental skills of listening comprehension, speaking, reading and writing the Mandarin Chinese language. Develop an understanding and appreciation of the Chinese people and culture.

CHIN& 122
Chinese II (H) (5)
Continued study of the fundamental skills of listening comprehension, speaking, reading and writing the Mandarin Chinese language. Develop an understanding and appreciation of the Chinese people and culture. Prerequisite: CHIN& 121 or permission of instructor.

CHIN& 123
Chinese III (H) (5)
Continued study of the fundamental skills of listening comprehension, speaking, reading and writing the Mandarin Chinese language. Develop an understanding and appreciation of the Chinese people and culture. Prerequisite: CHIN& 122 or instructor permission.

CHIN& 221
Chinese IV (H) (5)
Continued study of the fundamental skills of listening comprehension, speaking, reading and writing the Mandarin Chinese language. Develop an understanding and appreciation of the Chinese people and culture. Prerequisite: CHIN& 123 or permission of instructor.

CHIN& 222
Chinese V (H) (5)
Continued study of the fundamental skills of listening comprehension, speaking, reading and writing the Mandarin Chinese language. Develop an understanding and appreciation of the Chinese people and culture. Prerequisite: CHIN& 221 or instructor permission.

CHIN& 223
Chinese VI (H) (5)
Continued study of the fundamental skills of listening comprehension, speaking, reading and writing the Mandarin Chinese language. Develop an understanding and appreciation of the Chinese people and culture. Prerequisite: CHIN& 222 or permission of instructor.
language. Develop an understanding and appreciation of the Chinese people and culture.

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**CIVIL ENGINEERING**

This program is inactive and no longer accepting new students. For detailed information, please contact the Workforce Education Department, ext 427.

CET 210

**Civil Software Applications (2)**

This course involves the use of spreadsheets and computer aided drafting software to solve engineering problems. Recommended corequisites are CET 251 and CET 261. Prerequisite: BTEC 214 or equivalent; minimum grade of 2.0 in CET 114 and CET 260.

CET 240

**Engineering Mechanics (5)**

A study of basic concepts in statics and engineering mechanics related to the analysis of internal and external forces acting on structural members and systems. Prerequisite: PHYS&E 110 and MATH 110.

CET 250

**Construction Materials (3)**

Study of basic construction materials including steel, plastics, concrete and asphalt. Concrete mix design/test and evaluation of materials per WSDOT Standard Specifications.

CET 251

**Soil Mechanics (5)**

A study of basic engineering properties of soils, aggregates, and other subsurface materials, including sampling, testing, and evaluation for use as foundation or structural materials. Prerequisite: GEOL 100 and minimum 2.0 grade in CET 250.

CET 252

**Highway Engineering (5)**

Introduction to highway engineering principles. Study of highway components, geometrics, and traffic. Design of bases, flexible and rigid pavements with an overview of maintenance and rehabilitation techniques. Prerequisite: minimum grade of 2.0 in CET 251, CET 122 and CET 132.

CET 260

**Hydraulics (5)**

A study in the basic theory of hydrostatics and fluid mechanics with emphasis on the fundamentals of flow in pipes and open channels and the construction of water distribution systems. Prerequisite: minimum grade of 2.0 in CET 122, 132 and 152.

CET 261

**Environmental Technology (5)**

Introduction to environmental technology focusing on sanitary sewerage, septic systems, storm water quality and treatment, and the environmental impacts of land development. Prerequisite: minimum 2.0 grade in CET 260.

CET 262

**Storm Water Management (5)**

A study of hydrologic processes and storm water quantification for use in civil engineering site design and planning. Prerequisite: minimum 2.0 grade in CET 260.

CET 270

**Elements of Design (5)**

Study of civil engineering design and construction practices involved in land development. Students will use current software and tools to complete technical drawings and designs complying with local design standards. Prerequisite: minimum 2.0 grades in CET 114, CET 200, CET 210 CET 261, and CET 262.

CET 271

**Land Planning & Permitting (2)**

Study of the fundamentals of land use planning and urban design methods related to land development projects. Focus on project permitting processes at the city, county, and state levels in accordance with Washington State laws. Corequisite: CET 270.

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**COMMUNICATION**

COMM 100

**Dragon Naturally Speaking (2) (PT)**

Designed to assist students in the development of computer and English composition skills while using Dragon NaturallySpeaking (voice recognition) and text to speech software.

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**COMPUTER AIDED DRAFTING**

CAD 110

**CAD for Electronics (3) (PT)**

Introduces students to the art and science of reading and creating electrical schematics from a Computer Aided Drafting perspective in the AutoCAD environment. Knowledge of component identification is required. Prerequisite: ERA 101

CAD 112

**Computer Aided Drafting I (5) (PT)**

AutoCAD drafting, drawing, editing, dimensioning, drawing aids, layer control and plotting.

CAD 113

**Computer Aided Drafting II (5) (PT)**

Advanced AutoCAD commands, blocks, symbols library, including assigning and extracting block attributes, creating attribute reports, incorporating and managing external references, isometric drawings, creating dimension styles, use of multiple viewpoints, and introduction to 3-D wire-frame models and 3D solid. Prerequisite: minimum 2.0 grade in CAD 112 or instructor permission.

CAD 114

**Computer Aided Drafting III (5) (PT)**

Develop sound computer-aided drafting. Emphasis is placed on importing survey points, defining parcels, creating 3D terrain models, calculating cut and fill volumes, and creating contours with labels. Prerequisite: minimum 2.0 grade in CAD 113 or instructor permission.

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**COMPUTER NETWORK TECHNOLOGY**

CNT 117

**Windows Workstation OS (2) (PT)**

An introduction to the Windows workstation operating system. Course will cover such things as the taskbar, Start menu, recycle bin, window views, Windows Explorer, storage devices, printing, saving, control panels, etc.

CNT 123

**Desktop OS I (4) (PT)**

This is the first course based on CompTIA A+ and Linux+ certification materials. Material covered includes Virtualization, Vocabulary, OS Installation, Configuration, Customization and Usage Basics of the current popular Desktop Operating Systems.

CNT 124 (Replaces CNT 118)

**Desktop OS II (4) (PT)**

This is a second course based on CompTIA A+ and Linux+ certification materials. Material covered includes system hardware, advanced system configuration, and an introduction to the command line. Prerequisite: CNT 123.

CNT 125 (Replaces CNT 119)

**Desktop OS III (4) (PT)**

This is a third course based on CompTIA A+ and Linux+ certification materials. Material covered includes advanced trouble-shooting, more advanced systems configuration and cmd/shell scripting. Prerequisite: CNT 124.
CST 101
Intro to Programming (4) (PT)
This course provides an introduction to programming using Microsoft Visual Studio. Course focus is on building basic Windows Forms graphical applications.

CST 119
Web Scripting I (4) (PT)
This course is designed for new web designers who want to develop, modify and design web sites and web graphics using Macromedia products.

CST 120
Introduction to Web Design (4) (PT)
Create well-designed and effective Web pages. Hands-on computer projects help develop the basic application and design skills to create professional, eye-catching Web sites.

CS& 131
Computer Science I - C++ (5) (PT)
Intended as an introduction to programming. Emphasis is on the features of the “C” programming language with an introduction to C++ object oriented programming and good programming style.

CS& 141
Computer Science I - Java I (5) (PT)
A study of rapid application development (RAD) JAVA. Development of GUIs using Swing Technology. Object Oriented Programming as it is implemented in JAVA. Introduction to graphics, animation, and multi-threading. Prerequisite: MATH 099 or equivalent.

CST 204
XML (3)
XML (Extensible markup language), XHTML, Cascading style sheets, Document Type Definitions, Schema, Document Object Model, XPath, XSL. Prerequisite: CST 119.

CST 228
JAVA II (5)
How to connect to and query a database-based on client requests. Answers will be processed using Java Servlets and Java Server Pages. Data will be presented to the client as a dynamic web page. Prerequisite: CST 224 or CS& 141.

CST 230
JAVA: Server Side Programming III (5)
A second course in how to build and program dynamic web applications. Topics include: creating custom tags, integrating email into web applications, specialized servlets, Hibernate, Java Server faces, Struts and deployment strategies. Prerequisite: CST 228.

COOPERATIVE WORK EXPERIENCE
COOP 190
Cooperative Work Experience (1-12) (PT)
Cooperative Work Experience allows students to apply classroom learning to on-the-job settings. Credit is earned for new and continued learning taking place in the work environment. Reaching set learning objectives and development of positive work habits are emphasized. The Cooperative Education Faculty Coordinator, the student employee, and the worksite supervisor identify the learning objectives. 30-360 hours on-the-job per quarter. Instructor’s permission is required. Corequisite: Enrollment in a Work Experience Seminar is required of Coop students. You may take the Work Experience Seminar before or in the same quarter as the Coop course.

CRIMINAL JUSTICE
CJ 101
Intro to Criminal Justice (5)
Examines local, state and Federal law enforcement agencies and the judicial and correctional systems. Career opportunities and qualifying requirements are studied.

CJ 103
Constitutional Case Law (5) (PT)
Examines the Constitution and Bill of Rights in relation to law enforcement, the judiciary, and corrections. Defines guilt-laden facts, reasonable suspicion, and probable cause.

CJ 104
Intro to Law Enforcement (5) (PT)
A broad survey of the theories, procedures and methods of police operations studied. Also examines police discretionary powers, career opportunities, and trends in law enforcement. Pre/corequisite: CJ& 101 or instructor permission.

CJ 105
Intro to Corrections (5)
A broad survey of the history and evolution of adult and juvenile correctional models in America. All forms of incarceration and restrictive custody are studied. Pre/corequisite: CJ& 101 or instructor permission.

CJ 106
Juvenile Justice (5)
Juvenile deviance and theories of criminality are studied. Economic, social, and psychological impact of juvenile delinquency trends examined. Pre/corequisite: CJ& 101 or instructor permission.

CJ 107
Criminal Procedures (5) (PT)
Examines state and federal laws of arrest, search and seizure, civil and criminal liability. The rules of evidence and courtroom proceedings are studied. Pre/corequisite: CJ& 101 or instructor permission.

CJ 109
Community Policing (5) (PT)
Focus on resolving community issues and concerns via Community Oriented Policing and Problem Solving (COPPS) skills and strategies. Pre/corequisite: CJ& 101 or instructor permission.

CJ& 110
Criminal Law (5)
A broad survey of the common criminal laws and statutes of Washington and the other 49 United States. Pre/corequisite: CJ& 101 or instructor permission.

CJ 111
Criminal Justice Ethics (5) (PT)
Presents an in-depth examination and analysis of the practical, theoretical, ethical and moral considerations found in the criminal justice system. Pre/corequisite: CJ& 101 or instructor permission.

COOPERATIVE WORK EXPERIENCE Faculty Coordinator, the student employee, and the worksite supervisor identify the learning objectives. 30-360 hours on-the-job per quarter. Instructor’s permission is required. Corequisite: Enrollment in a Work Experience Seminar is required of Coop students. You may take the Work Experience Seminar before or in the same quarter as the Coop course.
CJ 116  
Community Corrections (5) (PT)  
Community corrections, alternative sentencing, probation and diversion concepts studied. Explores technology innovations pertaining to community supervision. Pre/corequisite: CJ& 101 or instructor permission.

CJ 126  
Homicide Investigation (5) (PT)  
Tactics, procedures, and forensic techniques of homicide investigation are examined. Various tools and processes systematically employed to identify, arrest, and convict perpetrators are studied. Pre/corequisite: CJ& 101 or instructor permission.

CJ 129  
Intro to Victimology (5) (PT)  
Introductory course examines violent crime and victimology in American society. Factors leading to acquaintance and stranger violence, proactive and reactive strategies to crime, legal issues and self-defense measures studied and discussed.

CJ 130  
Domestic Violence & Abuse (5) (PT)  
This course examines physical and sexual domestic violence in our society. This includes spouse/partner abuse and child abuse. Contemporary investigation and intervention strategies and techniques are studied including evidence discover, collection, and preservation.

CJ 190  
Cooperative Work Experience (1-10) (PT)  
See description under COOP 190 for additional information.

CJ 223  
Felony Investigations (5)  
Practical application of investigation techniques for felony crimes is studied and examined. Includes Part I offenses and drug crime, crime scene considerations, search warrants, report writing, evidentiary issues, surveillance, using informants, and assisting with prosecution.

CJ 224  
Crime Scene Photography (5)  
Practical application of basic crime scene photography methods and techniques for criminal investigations studied. Skills designed to capture the details of automobile accidents, misdemeanor, and felony crime scenes are discussed and practiced.

CJ 225  
Crime Scene Photography (5)  
Intro Forensic Science (5)  
Introductory course in forensic science examines physical evidence and laboratory analysis in criminal investigations. Skills and procedures required for collection, preservation, and identification of physical evidence are studied. Diagramming of crime scenes is practiced.

CJ 227  
Crime Scene Technology (5)  
Students learn techniques to collect and preserve common evidentiary items located at crime scenes for future laboratory analysis and judicial proceedings while ensuring proper chain of custody. Aspects of arson investigation are also studied.

CJ 228  
Crime Scene Photography (5)  
Practical application of basic crime scene photography methods and techniques for criminal investigations studied. Skills designed to capture the details of automobile accidents, misdemeanor, and felony crime scenes are discussed and practiced.

CJ 229  
Crime Scene Technology (5)  
Diesel Equipment Technology  
These courses provide a foundation for the student in understanding the basic principles of electrical/electronic systems. Covers basic systems of batteries, starting circuits, charging circuits, and DC circuitry. Prerequisite: DET 101 and 126 or instructor permission.

DET 110  
Mobile Electrical Systems I (3) (PT)  
The study of operating principles of the internal combustion engine. Corequisite: DET 121.

DET 111  
Mobile Electrical Systems I Lab (5) (PT)  
The application of material covered in Mobile Electrical Systems covering batteries, starting circuits, charging circuits, DC circuitry. Prerequisite: DET 101 and 126 or instructor permission; corequisite: DET 110.

DET 120  
Internal Combustion Engine I Theory (3) (PT)  
The study of operating principles of the internal combustion engine. Corequisite: DET 121.

DET 121  
Internal Combustion Engine I Lab (5) (PT)  
The disassembly and re-assembly of a variety of diesel engines using service manuals to inspect analyze and perform tune-up procedures. Corequisite: DET 120.

DET 125  
Power Transmission I Theory (3) (PT)  
The transmissions of power from the power source to the end function of machinery. Emphasis on mechanical devices. Theory of operation and repair.

DET 126  
Power Transmission I Lab (4) (PT)  
The application of mechanical power transmission and components. Repair and overhaul of components is studied and practiced in the lab. Corequisite: DET 125.

DET 130  
Mobile Hydraulics Theory (2) (PT)  
The terminology, physical laws, and principles used in hydraulic systems of diesel equipment. Corequisite: DET 131.

DET 131  
Mobile Hydraulics Lab (5) (PT)  
Practical exercises to aid the student in understanding the basic principles of hydraulic systems of diesel equipment. Corequisite: DET 130.

DET 166  
Shop Skills for Welders (3) (PT)  
Develop practical work skills and work habits in the student. Includes safety procedures and practices, proper use and maintenance of common shop equipment and common processes and materials of metal products fabrication and manufacturing.

DET 190  
Cooperative Work Experience (1-15) (PT)  
See description under COOP 190 for additional information.

DET 200  
Mobile Electrical Systems II (2)  
Principles of operation of components of electrical/electronic systems. Covers electronic control module (ECM) systems and advanced electrical trouble shooting. Corequisite: DET 201
DET 201
Mobile Electrical Systems II Lab (4)
Practical experiences in analyzing, measuring, and trouble-shooting electrical/electronic circuits. Computer related exercises are incorporated in analysis of these principles. Corequisite: DET 200.

DET 210
Power Transmission II (1)
The study of power shift and automatic transmissions as used in heavy duty equipment and on highway trucks.

DET 211
Power Transmission II Lab (2)
The application of power shift and automatic transmissions as used in heavy duty equipment and on highway trucks. Corequisite with DET 210.

DET 220
Internal Combustion Engine II Theory (2)
Detailed study of engine analysis and testing theory that produce optimum engine performance. Corequisite: DET 221.

DET 221
Internal Combustion Engine II Lab (4)
Live engine testing, trouble shooting, and repairs using the dynamometer. Corequisite: DET 220.

DET 225
Heavy-Duty Chassis Systems (4)
The study of heavy duty chassis systems including steering, frames, braking, and suspension systems. Theory of operation, repair, overhaul and preventive maintenance is covered.

DET 226
Heavy-Duty Chassis Systems Lab (6)
The application of the operation, repair and overhaul of heavy duty chassis system components including steering, brakes and suspension systems. Preventive maintenance procedures are exercised and computer related projects are required. Corequisite with DET 225.

DET 230
Practical Applications Theory (3)
Review of common technical repair practices. Introduction to wage/salary systems, productivity, customer relations, job ticket writing, phone etiquette, employer requirements and policies. Coverage of related state and federal requirements.

DET 231
Practical Applications Lab (5)
Service and repair of industrial trucks and equipment as per customer instructor repair order. Work is done in an industry-like setting using current repair orders and standard repair time guides (SRT’s). Emphasis on quality, efficiency and productivity. Prerequisite: DET 230.

DET 235
Mobile HVAC Systems Theory (2)
Basic principles of heating and air conditioning as used in mobile applications. Corequisite: DET 236.

DET 236
Mobile HVAC Systems Lab (4)
Industry accepted practices and procedures of air conditioning system diagnosis and repairs. Corequisite: DET 235.

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DRAMA

DRMA 100
Applied Drama (3)
Provides credit for participation in either the artistic or technical aspects of the college’s quarterly play productions. This course may be repeated for credit.

DRMA 101
Introduction to Theater (H) (5)
Overview of theatre as an art form with emphasis on the play in production and the roles of various theatre artists. Students are expected to attend two plays during the quarter at their own expense.

DRMA 103
Set Design (3)
Introduction to the basics of scenic design for the theatre; drafting and model building. Students will work on the concurrent Centralia College Drama production. Prior enrollment in DRMA 106 is preferred.

DRMA 105
Theater History (H) (3)
Survey of the major periods in Western drama through study of major representative plays and development of the physical theater of those periods.

DRMA 106
Introduction to Stagecraft (3)
Introduction to basic tools, materials, equipment, techniques used in the design and implementation of sets, lighting and sound for the theatre. Students will participate in the design, construction and lighting of the concurrent drama production.

DRMA 107
Beginning Acting (H) (5)
Introduction with emphasis on concentration, imagination, movement, and characterization via vocal, physical, emotional exercises, improvisation, and scene work. Students will be expected to attend two plays during the quarter at their own expense.

DRMA 108
Intermediate Acting (H) (5)
Continuation of acting fundamentals with an emphasis on improvisational techniques and exercises, and advance monologue and scene work. Students will be expected to attend two plays during the quarter at their own expense.

DRMA 110
Stage Makeup (3)
Introduction to the types of theatrical makeup and the techniques of application.

DRMA 111
Stage Lighting (3)
Introduction to the basic principles of stage lighting as an integral part of theatrical productions. The course will deal with theories and equipment commonly used in theatre lighting. Students will participate in the drama production.

DRMA 115
Dramatic Performance (H) (5)
For students involved in the creative/performance aspects of a play production, from audition through research/preparation for their portrayal and evaluation of their performance. The student must successfully audition and be cast in a college production. Prerequisite: audition selection for quarterly play production.

DRMA 120
Introduction to Playwriting (H) (5)
Study the art and craft of writing for the stage. Students will be required to complete and oversee the production of a short play. Final performances of student works will be presented to the public.

DRMA 141
Theater Speech (3)
The training of the human voice to develop control. The emphasis is on voice projection, quality and accuracy of sound and articulation of the English language.

DRMA 148
Introduction to Dance (1)
Study the fundamentals of Ballet, Modern, and Jazz dance. Prior dance experience is not necessary. The student will be required to wear casual, comfortable clothing. Students may participate barefoot. Dance shoes are optional.

DRMA 149
Introduction to Movement for Theatre (1)
Introduction to dance for Musical Theatre. Prior dance experience is not necessary. The student will be required to wear casual, loose fitting clothing. Students may participate barefoot. Dance shoes are optional.

DRMA 150
Introduction to Modern Dance (1)
Study basic Modern Dance, Latin, and Swing movements. Prior dance experience is not necessary. The student will be required to wear comfortable, loose fitting clothing. Students may participate barefoot. Dance shoes are optional.
ECONOMIC  

ECON 201  
Microeconomics (SS) (5)  
Study of individual markets and how prices and quantities react within those markets to meet the unlimited wants of human beings.

ECON 202  
Macroeconomics (SS) (5)  
Study how any system allocates limited resources to meet unlimited human wants. The major concerns of macroeconomic policy are: inflation, full employment, national income accounting, fiscal policy, the money supply and international trade.

EDUCATION  

EDUC 190  
Cooperative Work Experience (1-12) (PT)  
See description under COOP 190 for additional information.

EDUC 201  
Introduction to Education (3)  
Explore the role of education in our society and investigate teaching as a career. Both the historical perspective and current trends in education will be discussed.

EDUC 202  
Classroom Observation (2)  
Students review teaching as a career. Students observe classrooms in action and attend seminars to discuss their findings. Students may make arrangement with the instructor to start observations before quarter begins.

EDUCATION-EARLY CHILDHOOD  

ECED& 100  
Child Care Basics (3)  
Designed to meet licensing requirements for early learning providers, STARS 30 hour basic course recognized in MERIT system. Topics: child development, cultural competency, community resources, guidance, health/safety/nutrition and professional practice.

ECED& 105  
Introduction Early Child Education (5)  
Explore the foundations of early childhood education. Examine theories defining the field, issues and trends, best practices, and program models. Observe children, professionals and programs in action.

ECED& 107  
Health/Safety/Nutrition (5)  
Develop knowledge and skills to ensure good health, nutrition, and safety of children in group care and education programs. Recognize the signs of abuse and neglect, responsibilities for mandated reporting, and available community resources.

ECED& 115  
Child Development (5)  
An in-depth study of the physical, emotional, social and mental development of children from conception through age eight. An understanding of family structures, interaction and function will be integrated throughout the developmental process.

ECED& 120  
Practicum-Nurturing Relationships (2)  
Students gain experience engaging in nurturing relationships with children, keeping children safe and promoting children's growth and development.

ECED& 130  
Guiding Behavior (3)  
Examine the principles and theories promoting social competence in young children and creating safe learning environments. Develop skills promoting effective interactions while providing positive individual guidance and enhancing group experiences.

ECED& 132  
Infants/Toddlers Care (3)  
Examine the unique developmental needs of infants and toddlers. Study the role of the caregiver, relationships with families, developmentally appropriate practices, nurturing environments for infants and toddlers, and culturally relevant care.

ECED& 134  
Family Child Care (3)  
Learn the basics of home/family child care program management. Topics include licensing requirements; business management, relationship building, health, safety, and nutrition, guiding behavior and promoting growth and development.

ECED& 136  
School Age Care (3)  
Gain skills to provide developmentally appropriate and culturally relevant activities and care for school-age children. Focus is on preparing the environment, implementing curriculum, building relationships, guiding academic/social skill development, and community outreach.

ECED& 139  
Admin Early Learning Program (3)  
Establish administrative skills required to develop, open, operate, manage, and assess early childhood education and care programs. Explore techniques and resources available that meet Washington State licensing and NAECY standards.

ECUD 150  
Child/Family/Community (3)  
Investigate the family and community contexts in which children develop. Explore cultures and demographics of families in society, community resources, strategies for involving families in the education of their children and tools for effective communication.

ECED& 160  
Curriculum Development (5)  
Investigate learning theories and create curriculum that enhances the development of language, fine/gross motor, social-emotional, cognitive and creative skills in young children.

ECED& 170  
Environments-Young Child (3)  
Design and evaluate indoor and outdoor environments which ensure quality learning, nurturing experiences, and optimize the development of young children.

ECED& 181  
Language and Literacy (5)  
Create teaching strategies for language acquisition and literacy skills at each developmental stage (birth-8) through the four interrelated areas of listening, speaking, writing, and reading.

ECED& 190  
Observation/Assessment (3)  
Collect data to assess children. Use this data to plan for group and individual needs.

EDUC& 203  
Exceptional Child (3)  
Explains the role of Special Education in education systems. Provides techniques to work with the exceptional child in the classroom. Topics include exceptionality in all areas of development, diagnosis, communication, and working with family structures.
**ELECTRONICS/ROBOTICS**

**ERA 115**
**Charge Avoidance.** Prerequisite: MATH 115, emphasizes safety and electro-static discharge (ESD). Pre/Corequisite: MATH 098, ENGL 099 or equivalents.

**ERA 105**
**Industrial Computer Operation (3) (PT)**
Best practices computer operations in an industrial environment. Topics include Windows operation system navigation, hardware maintenance and various industrial software interfaces. Pre/Corequisite: MATH 098, ENGL 099 or equivalents.

**ERA 115**
**DC Electronics (5) (Formerly ELT 115) (PT)**
Analysis and troubleshooting of DC circuits including Ohm’s Law, Watt’s Law, and Kirchoff’s Laws; and Thevenin and Norton equivalents. Class will emphasize DC circuit principles. Prerequisite: ERA 101.

**ERA 120**
**Sensor Technology (3) (PT)**
How to use, repair and calibrate electronic sensors that measure heat, light, magnetism, pressure, flow and liquid level.

**ERA 121**
**AC Electronics (5) (Formerly ELT 121) (PT)**
Analysis and troubleshooting of AC circuits. The effects of devices such as capacitors, inductors and transformers in filter combinations are studied, along with the effects of alternating current and magnetism. Prerequisite: ERA 101.

**ERA 120**
**Robotics I (3) (PT)**
An introduction to the principles of robotics. Prerequisite: one quarter of prior programming.

**ERA 150**
**Robotics II (4)**
Students learn the mechanical, electronic and software features of autonomous robots. Prerequisite: ERA 150, ELT 115, CST 224.

**ERA 230**
**Robotics III (4)**
A third course in Robotics. Topics covered will include electrical motors, motor controls work cell robotics, and a very heavy emphasis on programmable logic controllers. Prerequisite: ELT 121, ERA 120, ERA 151.

**ERA 250**
**Automation I (4)**
An introductory study of the principles of Automation. This includes: Thyristors, Electric Motors, Motor Controls, Ladder Logic and Closed Loop Systems. Prerequisites: ELT 121, ERA 120, ERA 151.

**ERA 251**
**Automation II (4)**
Topics covered include electric motors, motor controls work cell robotics, and a very heavy emphasis on programmable logic controllers. Prerequisite: ERA 250.

**PPO 120**
**Energy Technology - Blueprint Reading (4) (PT)**
An in-depth study of construction blueprints for residential, commercial, and industrial facilities, emphasizing interpretation as it applies to the energy and HVAC industries.

**PPO 130**
**Industrial Safety (5) (PT)**
Industrial safety practices, procedures, and equipment as found in modern power plants. Also included will be basic first aid and CPR, and basic firefighting equipment and procedures. Basic Rigging will be taught stressing safety. Prerequisite: PPO 102.

**PPO 150**
**Energy Efficiency (3) (PT)**
A study of Energy Efficiency concepts related to the efficient and effective use of electricity in home and industry. Subjects covered will include electrical terms, green alternative energy sources, transportation, solar, wind, biomass, and insulation.

**PPO 151**
**Energy Efficiency Lab (2) (PT)**
Real world application of Energy Efficiency concepts. Students will do an energy audit of their homes measuring and calculating the overall energy efficiency of the home. Corequisite: PPO 150.

**PPO 191**
**Power Plant Job Preparation (4) (PT)**
Introduces students to local power generation facilities through touring potential job sites, performing market research and preparing for the POSS test which is required for entry level employment or apprenticeship.
PPO 201  
Plant Systems (5)  
Provides a background in power plant cycles, systems and equipment, including an introduction to instrumentation and control. Prerequisite: PPO 102.

PPO 202  
Plant Maintenance (5)  
Provides a background in refrigeration, heating, ventilation and air conditioning; and lighting. Prerequisite: PPO 201.

PPO 203  
Plant Operations Refrigeration & HVAC (5)  
Provides a background in power plant operations and controls. Prerequisite: PPO 202.

PPO 205  
Power System Operator I (5)  
First in a two-class series: provides background to operate the American electrical grid system under North American Electric Reliability Corporation (NERC) required standards and prepares for NERC exam. Prerequisite: minimum 2.5 grade in PPO 201 or instructor permission.

PPO 206  
Power System Operator II (5)  
This continuation of PPO 205 provides students with background in operating the American electrical grid system under North American Electrical Reliability Corporation (NERC) required standards and prepares for NERC exam. Prerequisite: minimum 2.5 grade in PPO 205 or instructor permission.

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ENGINEERING

ENGR 100  
Introduction to Engineering (2) (PT)  
Introduction to the various fields and careers of engineering. Topics will include: educational planning and transfer issues; problem solving, engineering design, teamwork, and communication skills.

ENGR& 111  
Engineering Graphics I (2)  
Introduces the basic concepts of engineering graphics through freehand sketching and computer-aided drafting. Includes orthographic projection, section and auxiliary views, dimensioning and text.

ENGR& 112  
Engineering Graphics II (3)  
Continuation of ENGR& 111. Emphasizes basic concepts of engineering graphics in CAD-based descriptive geometry applications. The latter part of the course covers a variety of 3-D modeling techniques and solid mass properties extraction. AUTO-CAD software is used as the primary CAD tool. Prerequisites: ENGR& 111 or equivalent, MATH & 141, or instructor permission.

ENGR 203  
Applied Numerical Methods (5)  
Numerical solutions to engineering and science problems using modern scientific computing tools. Application of mathematical judgment in selecting computational algorithms and communicating results. Introduction to MATLAB programming for numerical computation. Prerequisite: MATH 152 (MATH 118 recommended) or instructor permission of instructor.

ENGR& 204  
Electrical Circuits (5)  
An introduction to basic electrical circuits and systems. Topics include: basic analysis techniques; nodal and mesh analysis; Thevenin and Norton equivalent circuits; operational amplifiers; step, natural and steady state circuit response. Concurrent enrollment in MATH 212 is recommended. Prerequisite: MATH 152 and PHYS 222.

ENGR& 214  
Statics (5)  
First of a three-course sequence. The basic principles of vector statics; friction, analytical and graphical methods of solving force systems including frames, trusses, and other simple mechanisms; centroids and moments of inertia; chains and cables. Corequisite: MATH 151.

ENGR& 215  
Dynamics (5)  
Second of a three-course sequence includes the study of kinematics and kinetics of a particle, work-energy, impulse-momentum, relative motion, and rigid-body mechanics. Vector methods will be stressed throughout. Prerequisite: ENGR& 214.

ENGR& 225  
Mechanics of Materials (5)  
The last of a three-course sequence includes the study of stress, strain, deflection in beams, columns, machine and structural members. Includes bending moments, shear, torsion, deformation, unsymmetrical bending, and eccentric loading. Prerequisite: ENGR& 214.

ENGR 270  
Research in Engineering (1-12)  
Design a research project, set up experiments, collect data in the lab or in the field, and/or analyze data. Each credit hour requires 33 hours of activity per quarter. Prerequisite: instructor permission.

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ENGLISH

ENGL 093  
Independent Study (1-5)  
Individualized instruction for the student whose needs are not currently being met by the available course offerings. Specialized curriculum and instruction are developed to meet each student's needs. Permission of instructor only.

ENGL 094  
Spelling (1-5)  
Topics covered in this course include basic spelling patterns, commonly confused words, apostrophe use, capitalization, plural formation, and how pronunciation helps to improve spelling. Students utilize materials according to pretesting information.

ENGL 095, 096  
Vocabulary Development I & II (1-5)  
Builds a base of words used in everyday communication, provides systematic study, and increases proficiency in oral and written communication and reading comprehension. Students are given a placement test and assigned materials at an appropriate level.

ENGL 097  
Vocabulary Development III (1-5)  
Provides a systematic study of college level academic words and their roots, prefixes, and suffixes to increase proficiency in oral and written communication.

ENGL 098  
Writing & Grammar Review (1-5)  
A course in argumentative and persuasive writing, methods of research, development and preparation of original source-based papers and projects. Prerequisite: completion of ENGL 101 with a minimum grade of 2.0.
ENGL 103 (formerly ENGL 100)
Writing for College (1)
Lab hours in the Writing Center will support skill development and confidence in specific aspects of college writing, to be defined in an Individual Learning Plan (ILP) with instructor.

WRT 105 (Formerly ENGL 105)
Writing in the Workplace (5)
Study a variety of workplace communications, along with proper use of grammar, sentence structure, mechanics and vocabulary within those communications. Prerequisite: ENGL 098 or equivalent score on Compass/Asset test.

ENGL& 111
Introduction to Literature (H) (5)
Introduces the major genres, techniques and themes of literature by examining the work of a variety of classic and contemporary authors.

ENGL& 113
Introduction to Poetry (H) (5)
Introduction to modern poetry (mid-19th c. to present) through the study of major English language poets: their lives, influences, and works. Corequisite: ENGL& 101.

ENGL& 114
Introduction to Dramatic Literature (H) (5)
Survey of dramatic literature from classical Greek to modern plays, emphasizing basic elements of plot, character, language, and the traditional genres of tragedy and comedy. Students will attend two plays at their own expense.

ENGL 160
Women's Literature (H) (D) (5)
Examines literature written by women to understand how gender, class and race shape their experience and their writing. Genres will include poetry, short stories, non-fiction, fiction and drama. College-level reading and writing skills expected.

ENGL 180
Short Fiction (H) (5)
Survey of short story as representational vehicle in romanticism, realism, modernism, horror, satire, science fiction, magical realism. Primarily American in focus; includes cross-cultural comparisons. College-level reading and writing skills expected. Creative writing options.

ENGL 204
Introduction to Shakespeare (H) (5)
Learn about the life, times and works of William Shakespeare, how Elizabethans’ likes and dislikes, superstitions, and social order influenced this golden age of the theatre by studying six of the Bard's 37 plays.

ENGL 208
Introduction to Creative Writing (H) (5)
Writers will move beyond the traditional “academic essay” into an exploration of literary genres to include poetry, creative nonfiction, short fiction, and drama in interactive workshop environment. Prerequisite: college level writing skills; test into ENGL& 101.

ENGL 209
The Hero's Quest: Survey of English Literature 7th Century (H) (5)
Surveys how medieval and early Renaissance English writers explored issues like the relationship between rulers and subjects, God and free will, and the war between the sexes. Covers the Beowulf poet, Chaucer, Shakespeare, and more.

ENGL 210
The Crisis of Faith: Survey English Literature 1616 (H) (5)

ENGL 211
Survey of English Literature: 1798 - Present (H) (5)
This survey studies how, amid political, technological, religious, and artistic ferment, English literature was transformed by the Romantic poets, the rise of the Victorian novel, and the innovations of modern fiction, drama, and poetry.

ENGL 220
American Drama (H) (3)
Presents six classic American plays which deal with society and family expectations. Students will view, analyze, discuss, and write on the literary components and substance of these plays.

ENGL 223
Literature for Children and Adolescents (H) (5)
Introduction to historical framework of this genre of literature and the authors and illustrators of children's books from pre-school to adolescence. Classics as well as contemporary publications included. Reading to children at day-care included.

ENGL& 235
Technical Writing (C) (5)
An alternative to ENGL& 102 for science and engineering majors, focused on writing with clarity, objectivity, audience awareness, proper formats as well as research techniques, problem-solving, critical thinking and development of source-based writing. Prerequisite: completion of ENGL& 101 with a minimum grade of 2.0.

ENGL& 244
American Literature I (H) (5)
Surveys how great American writers have addressed classic American values and conflicts, tracing the development of our national literature through the Puritan, Transcendental, Realist, Naturalist, and modern movements and covering poetry, fiction, and nonfiction.

ENGL 249
The Great American Novel (H) (5)
Explore the development of the American novel and its major themes, focusing on classics by writers like Hawthorne, Melville, Twain, Chopin, Hemingway, Faulkner, and Morrison. This course requires college level reading and writing skills.

ENGL 250
Literary Themes (1-5)
A major theme is followed through important works of fiction, poetry, and drama. Themes vary depending on the instructor and the quarter in which it is offered.

ENGL 260
Non-Western World Literature (H) (D) (5)
Literature of the non-western world, ancient times to the present. Students will explore works from India, China, Africa, Japan, the Middle East, and Latin America.

ENGL 271
Intermediate Creative Writing (3)
Students will hone their creative writing, work shopping, and revising skills while working on an individual project. Prerequisite: ENGL 208 & instructor permission.

ENGL 272
Advanced Creative Writing (3)
For serious students who wish to prepare a manuscript for publication and/or writing program admission. Emphasis on work shopping, and revising of an individual project. Prerequisite: ENGL 271 & instructor permission.

ENVIRONMENTAL SCIENCE
ENVNS& 100
Survey of Environmental Science (S) (5)
An introduction to the interactions between humans and the natural world. Topics include structure and function of ecosystems; populations' growth; mineral, water, forest, food and energy resources, waste management, pollution. Local and global environmental issues will be discussed.
ENVS 101
Introduction to Environmental Science w/lab (S) (5)
An interdisciplinary course for non-science majors and beginning science students. Topics include biodiversity, climate, pollution, energy and food. Independent laboratories and field trips included. Students cannot receive credit for Both ENVS& 101 and ENVS& 101.

ENVS 120
Watersheds: Connecting Mountains to the Sea (S) (5)
Investigate interconnections among geology, hydrology, biological diversity, ecology, human impacts and development along local rivers from headwaters to the ocean. General concepts presented in lectures are illustrated during day-long weekend field trips over rough terrain.

ENVS 121
Fire and Ice, Rain and Rocks-The Geology of water (1)
Examine the geologic and hydrologic characteristics and history of a river from its headwaters to its delta-how earthquakes, faulting, folding, climate, glaciers, volcanism, and man have affected the river. Includes a day-long field trip over rough terrain.

ENVS 122
Plants, People, and Watershed Health (1)
Investigate the role of upland forests and riparian vegetation on the health of watersheds and people. During a day-long field trip over rough terrain, identify plant species, measure ecosystem characteristics, observe healthy and impacted sites, and investigate the compatibility of forestry, agriculture and watersheds.

ENVS 123
Let the Bugs Speak: Biological Communities (1)
Investigate biological communities found in local streams and rivers, focusing on aquatic insects and aquatic vertebrates. Apply stream survey techniques to assess stream health. Includes a day-long field trip over rough terrain.

ENVS 124
Life in the Mud: Where the River Meets the Sea (1)
Estuaries, important and yet impacted ecosystems, are critical nursery habitats for many marine species, including endangered salmon and important overwintering habitat for migratory birds. Investigate the impacts of anthropogenic modification to the local estuaries and recent attempts at habitat restoration. Includes a day-long field trip over rough terrain.

ENVS 125
Life on the Edge: Surviving the Intertidal (1)
Investigate the flora and fauna living in the intertidal zones of sandy and rocky habitats in Puget Sound and the Straits of Juan de Fuca. Explore the physical and biological factors that regulate intertidal communities in the Pacific Northwest. Includes field trips over rough terrain.

ENVS 126
Our River's Keepers: Pollution/Remediation (1)
Examines pollution within the Chehalis River watershed, including pollutant types, sources, impacts, environmental fates and methods of remediation. Asses water quality, examine potential sources of pollutants, and visit restoration/remediation projects. Includes a day-long field trip over rough terrain.

ENVS 127
Fishes & Rivers in Northwest (1)
Investigate fish communities found in local streams and rivers. Examine the impacts of habitat loss, hydropower and dams, hatcheries, and overharvesting on local fish populations. Includes a day-long trip over rough terrain.

ENVS 170
Introduction to Natural Resources (S) (5)
What are Pacific Northwest forests, fishes and wildlife? Learn some common species, historical human uses; what policies drive their management, how to conserve them for future use, and how to plan for a career in the field.

FORENSIC SCIENCE
FORS 101
Introduction to Forensic Science (S) (5)
Application of biology, chemistry, and physical science in evaluating evidence. Examine the capabilities and limitations of forensic science, the organization of the forensic science laboratory, using analytical tools, and applying science to questions of law.

FRENCH
FRCH& 121, 122, 123
French I-III (H) (5)
A multimedia course that combines video, audio, and print. Emphasis is on communicative proficiency, self-expression and cultural insight. Resources include CDs, videos and the World Wide Web.

FRCH& 221, 222, 223
French IV-VI (S)
Reviews and expands essential points of grammar. Students will develop reading skills, build their vocabulary, and increase their listening and speaking skills in a variety of topics. French is used almost exclusively in the classroom. Prerequisite: FRCH& 123 or instructor permission.

GEOGRAPHIC INFORMATION SYSTEM
GIS 101
GIS Introduction (3) (PT)
Provides an overview and hands-on practice with Esri’s ArcGIS Software (ArcMap/ Arc Catalog). Encourages students to associate, relate, and apply GIS technology to major and career goal. Students will complete Esri ‘Virtual Campus’ Certificates. Prerequisite: CNT 117 or equivalent skills recommended.

GIS 102
GIS Spatial Data Design (3) (PT)
Provides in-depth analysis and hands-on practice with coordinate systems, projections, and the structure capabilities and methods for designing geodatabases within GIS. Students will complete Esri ‘Virtual Campus’ Certificates. Prerequisite: CNT 117 or equivalent skills recommended.

GIS 103
GIS Based Cartography (3) (PT)
Introduces the art and science of GIS cartography (map making). Create digital and hardcopy representations for a variety of audiences, using the latest Esri GIS software and extensions. Students will complete Esri ‘Virtual Campus’ Certificates. Prerequisite: CNT 117 or equivalent skills recommended.

GIS 104
GIS and GPS Integration (3) (PT)
Collect, transfer, and use Global Positioning System (GPS) data as primary and secondary data in GIS software for analysis and visualization. Students will complete Esri ‘Virtual Campus’ Certificates. Prerequisite: CNT 117 or equivalent; GIS 101 recommended.

GIS 110
Principles of GIS (5) (PT)
Introduction to the principles of geographic information systems: data sources, data models, capturing and manipulating GIS data, geography concepts, and spatial data. Hands-on practice with GIS software. Prerequisite: MATH 098 must have computer skills (email, file structure, windows).
GIS 200
GIS Extensions Analyst (3)
Introduction to Esri’s ArcGIS Extensions that provide advanced analysis and visualization options while developing skills using 3D Analyst, Spatial Analyst, Network Analyst, Model Builder, Maplex, and others. Students will complete Esri ‘Virtual Campus’ Certificates. Prerequisite GIS 101, 102.

GIS 201
GIS Capstone (3)
In this culminating course, students plan and implement a project using skills such as spatial data design, cartography, and extensions analysis acquired in previous GIS courses. Prerequisite: GIS 101, 102, 103, 104, and 200.

GIS 250
GIS and Remote Sensing (5)
Application of geographic information systems (GIS) and techniques of remote sensing in natural resource management, including area determination, scale, height measurement, and forest analysis. Detailed cases are studied. Prerequisite: GIS 110, ENGL 099, MATH 099, or instructor permission.

GEOGRAPHY

GEOG 200
Introduction to Physical Geography (S) (5)
Explore minerals and rocks, geological processes, and geological investigation techniques that relate to geotechnical and environmental concerns.

GEOG 201
Introduction to Physical Geography Lab (S) (1)
Students will explore applications in physical geography. Maps, profiles, tables, graphs, aerial photos. Concurrent enrollment in GEOG 201 or instructor permission.

GEOG 208
Geology of Pacific NW (S) (5)
Examines the geology and geologic history of the Pacific Northwest and geologic processes important to its evolution. Topics include volcanoes, earthquakes, plate tectonics, rock and minerals, faults and folds, mountain building, landscapes, glaciation, and surface processes.

HEALTH

HLTH 120
Women’s Health Issues (D) (HF) (3)
An opportunity to examine current women’s health and well-being issues.

HLTH 125
Exploring Healthcare Professions (3)
An opportunity for investigating the many career opportunities in the health sciences.

HLTH 130
Health & Wellness (HF) (3)
An exploration of current personal health issues and a presentation of contemporary approaches to obtaining and maintaining a high level of wellness.

HLTH 133
Healthy Weight Control (HF) (2)
An introduction to healthy eating that focuses on a balance of foods, including a variety of lifestyle change strategies that will enhance the maintenance of a healthy weight.

HLTH 140
Exercise & Nutrition (HF) (3)
Two core components of a healthy lifestyle - a healthy diet and a safe exercise program - will be explained and developed. Students are expected to exercise outside of class time.

HLTH 145
Safety and Fitness (HF) (3)
Emphasizes the importance of safety, first aid, and exercise as they relate to an individual’s level of health and fitness. The course includes American Red Cross Community First Aid and Community CPR certification.
**HIST 110**
**History of Intolerance (D) (SS) (3)**
An examination and analysis, through reading and film, of intolerance in America's history. Particular attention will be paid to historical events which demonstrate intolerance based on: religion, ethnicity, race, gender, sexual orientation, age, and sex.

**HIST& 116**
**Western Civilization I (SS) (5)**
Analysis of the development of major political, economic, social and cultural characteristics of Antiquity and Medieval Europe.

**HIST& 117**
**Western Civilization II (SS) (5)**
Analysis of the modern state with emphasis on the Renaissance, the Reformation, Absolutism, Scientific and Political Revolutions.

**HIST& 118**
**Western Civilization III (SS) (5)**
Analysis of the late 19th and 20th centuries with special attention paid to the development of political, social and economic trends and events.

**HIST 146**
**US History I (SS) (5)**
Analysis of American history from the pre-invasion to the Antebellum Era. Emphasis will be on the political, social, and economic changes.

**HIST 147**
**US History II (SS) (5)**
Analysis of American history from Antebellum Era to the Progressive Era. Emphasis will be on the political, social, and economic changes.

**HIST 148**
**US History III (SS) (5)**
Analysis of American history from World War One to the present. Emphasis will be on the political, social, and economic changes.

**HIST 210**
**Introduction to Pacific Asian History (D) (SS) (5)**
Description and analysis of emergence of modern nations of Pacific Asia. Gain understanding of historical and geographical context of the political and economic development of the region.

**HIS& 214**
**Pacific NW History (SS) (5)**
Study of the early exploration and settlement of the Pacific Northwest. Emphasis will be on the economic, political and social developments. The course is designed to meet state certification requirements for teachers.

**HIST& 215**
**Women in U.S. History (SS) (5)**
Exploration of female experiences in the 18th, 19th, 20th and 21st centuries by looking at class, race and ethnicity and study women in the context of the major historical developments in their time.

**HIST 275**
**America in Vietnam (5)**
Overview of the Vietnam Conflict, including the Vietnamese culture, and history; U.S. foreign policy; roots of the war; effects on world politics media conduct during and after the war; and impacts on American society.

**HIST 280**
**History of American Foreign Relations (SS) (5)**
Survey of American foreign relations from the 17th to the 21st centuries focusing on such issues as national security, economic needs, capitalism, democracy and imperialism.

**HONORS PROJECT**

**HON 160**
**Honors Project (3)**
Honors students will work with one faculty mentor to develop, complete, and publicly present a three-credit project or paper that requires original research and development. It is expected that the project will involve 60 to 90 hours of work, including initial and progress meetings with the faculty mentor.

**HON 170**
**Honors Project (3)**
Honors students will work with one faculty mentor to develop, complete, and publicly present a three-credit project or paper that requires original research and development. It is expected that the project will involve 60 to 90 hours of work, including initial and progress meetings with the faculty mentor.

**HON 250**
**Honors Colloquium (5)**
Honors students will explore the annual Phi Theta Kappa (International Honors society of the Two-Year College). Honors Study Topic in a colloquium setting, using texts, films, Internet, and other resources.

**HUMAN RELATIONS**

**HR 110**
**Human Relations-Workplace (5) (PT)**
Study of behavior, personality, self-management, self-development, and elementary business psychology in the workplace. Focus on understanding and demonstrating skills imperative to workplace success including communications, personal attitude, motivation, and workplace etiquette.

**HR 210**
**Human Resource Management (5)**
Introduction to fundamental concepts of human relations management. This course will focus on recruiting, employee selection and training, employee performance and compensation, and employee laws and labor relations.

**HUMANITIES**

**HUM 110**
**Ethics and Cultural Values (D) (H) (5)**
An interdisciplinary study of philosophy, literature, history and religion within Western and Oriental ethical systems of thought. It focuses on the importance of cultural values through a study of virtue, duty, utility, and rights.

**HUM& 116**
**Humanities I (H) (5)**
A survey of the major movements in art, architecture, music, philosophy and literature in a historical context, from pre-historically to 1400 C.E.

**HUM& 117**
**Humanities II (H) (5)**
A survey of the major movements in art, architecture, music, philosophy and literature in a historical context, from 1300 C.E. to 1800 C.E.
HUM 118
Humanities III (H) (5)
A survey of the major movements in art, architecture, music, philosophy, and literature in a historical context, from 1800 C.E. to the present.

HUM 270
Survey of Film Studies (H) (5)
An examination of the social, historical, technical, and artistic aspects of film through viewing, study and discussion of notable motion pictures.

HUM 281-286
Lyceum I-VI (1)
The Lyceum offers a variety of lectures on topics of current interest across a wide variety of disciplines. The theme may vary from quarter to quarter.

INTENSIVE ENGLISH PROGRAM
IEP 084, 088, 092, 096
Intensive English: Speaking I-IV (1-5)
Multi-level language course with emphasis on communicative oral proficiency. Instruction includes use of multimedia to enhance the learning of the English language and American culture.

IEP 085, 089, 093, 097
Intensive English Listening I-IV (1-5)
This course provides students with reciprocal listening training. They will also be introduced to non-reciprocal listening tasks both in a formal and non-formal method of communication.

IEP 086, 090, 094, 098
Intensive English Reading I-IV (1-5)
Multi-level reading course for non-native English Speakers that emphasizes the acquisition of reading skills at a post-secondary level, including vocabulary, comprehension, reading rate, and study skills.

IEP 087, 091, 095, 099
Intensive English: Writing and Grammar Level I-IV (1-5)
This is a multi-level class to prepare non-native English students for writing in college level academic and technical courses. Difficulty and length of writing assignments increase with each level. Students write about themselves, their culture or other familiar topics, discuss and write about American and world culture, and academic topics. Writing fluency is stressed, and correction focuses on structural and grammatical errors appropriate to each level. Paragraph development and short essay organization are emphasized. Writing includes description, narration, comparison/contrast, with some analysis and summarizing of short reading passages. Students keep a daily journal.

JOURNALISM
JOUR 106
Introduction to News Writing I (H) (5)
Learn the difference between news writing and other types of writing. Practice writing a variety of kinds of news articles.

JOUR 107
Introduction to News Writing II (H) (3)
Start, develop and polish hard news and soft news stories. Practice gathering information from a variety of sources. Prerequisite: JOUR 106.

JOUR 160
Introduction to Mass Media (H) (5)
A survey of the mass media in America: newspapers, magazines, books, recorded music, radio, television, motion pictures, the World Wide Web: with emphasis on structure, function, audience, content, effect and social responsibility.

JOUR 170
Racism, Sexism and the Media (D) (H) (3)
Issues of race and gender in the media from both an historical and a current perspective.

JOUR 180
Issues in Mass Media (2)
Discuss and interpret issues as they relate to the media. Learn to evaluate media messages critically.

JOUR 206
News Reporting and Writing (5)
Write a variety of in-depth and extended coverage news articles concentrating on enterprise and package projects. Practice writing editorials, columns and reviews. Learn the basics of broadcast and public relations writing. Prerequisite: JOUR 106, 107, 111, ENGL 101

LIBRARY
LIBR 180
Research in the 21st Century (5)
Students examine various strategies for locating, evaluating, and applying information resources in the research process. Attention is paid to information issues like intellectual property, censorship, and freedom of information. Prerequisite: eligibility for ENGL 101.

LIBR 182
Research Skills (2)
Student will learn how to use the tools of research, including both traditional library resources and those accessed over the Internet. They will discover how information is organized and indexed for retrieval, the appropriate search syntax for a variety of databases, and the underlying search patterns that remain constant from resource to resource. Students will demonstrate acquisition of these skills through the creation of a topic pathfinder and individual weekly assignments. Prerequisite: ENGL 099 or equivalent.

MATHEMATICS
MATH 094
Independent Study (1-5)
Individualized instruction for the student whose needs are not currently being met by the available course offerings. Specialized curriculum and instruction are developed to meet each student’s needs. Permission of instructor only.

MATH 095
Basic Mathematics (1-5)
For students who need to review basic math concepts such as whole number, fraction and decimal operations. Appropriate placement test scores.

MATH 096
Pre-Algebra (1-5)
Covers percentages, proportions, unit conversions, geometry, simplifying algebraic expressions and solving simple first degree linear equations. Prerequisite: MATH 095 or appropriate test score placement.

MATH 097
Algebra for Statistics (5)
An algebra course for students intending to enroll in MATH& 146, Introduction to Stats. This course does not meet the algebra prerequisite or other quantitative skills courses or for transfer to the University of Washington. Prerequisite: MATH 096 or Compass score of 78+.
MATH 098
Algebra I (1-5)
For students with good arithmetic skills and familiarity with signed numbers and basic algebraic expressions. Problem-solving skills are emphasized. Topics include: linear equations and inequalities, graphing, polynomials, and rational expressions. Prerequisite: MATH 096.

MATH 099
Algebra II (1-5)
Introduces the concept of functions, their graphs and properties. Particular attention will be paid to linear, quadratic, exponential and logarithmic functions. Prerequisite: MATH 098 or equivalent.

TMATH 100 (Replaces MATH 100)
Technical Mathematics I (5) (PT)
Focus is on methods of problem solving for the technical fields. Course develops mathematical vocabulary and skill with algebraic expressions, formula manipulation, graphing techniques, right triangle trigonometry, geometry, exponents, logarithms, and equation/system of equation solving. Prerequisite: MATH 098 or equivalent

TMATH 101 (Replaces MATH 101)
Foundational Math Concepts (5) (PT)
Study of foundational math theory and concepts including number sense, algebra, geometry, data analysis and math vocabulary through inquiry-based learning. Does not meet Quantitative Skills distribution requirement for AA degree. Prerequisite: MATH 095 or equivalent.

MATH& 107
Math in Society (M) (5)
Designed to enhance math proficiency of liberal arts students as they meet personal and professional demands. Includes mathematics in management, statistics, probability, art, and other practical applications in society. Not preparation for calculus. Prerequisite: MATH 095 or equivalent.

TMATH 110 (Replaces MATH 110)
Technical Mathematics II (PT) (3)
Course emphasizes trigonometric functions used to solve engineering, electronics, and mechanics application problems. This course does not satisfy the quantitative skills requirement for either an AA or AS degree. Prerequisite: MATH 100 or equivalent.

MATH 115
College Algebra for Business (M) (5)
Linear, polynomial and rational function models. Exponential and logarithmic functions, Mathematics of finance, matrices, linear programming, set operations, and probability. Prerequisite: MATH 099 or equivalent.

TMATH 116 (Replaces MATH 116)
Industrial Math (PT) (5)
Application of basic mathematical operations to specific workforce programs including common fractions, decimal fractions, percentages, ratio and proportion, practical algebra, and computations involving rectangles and triangles. Emphasizes the use mathematics in diesel and welding.

MATH 118
Linear Algebra (M) (5)
Computational and modeling tools with applications in physics, mathematics, engineering, economics, and business. Topics include systems of equations, matrix algebra, vector spaces, subspaces, bases, orthogonally, transformations, and eigenvalues. Prerequisite: MATH& 142 or equivalent placement.

TMATH 121
Electronics Math 1 (M) (PT) (5)
Students will be introduced to math concepts relating to electronics and robotics. Topics studied will include functions, direct and inverse relationships, unit analysis, calculator operation, linear and exponential equations, and spreadsheet math operations. Prerequisite: MATH 098.

TMATH 122
Electronics Math 2 (M) (PT) (2)
Continuation of Electronics Math 1 - students will learn math concepts applicable to AC electronics and semiconductor device performance. Trigonometry and complex numbers will be emphasized. Prerequisite: TMATH 121.

MATH& 131
Math for Elem Educators 1 (M) (5)
Designed to provide the conceptual framework for teaching mathematics from kindergarten through eighth grade. Prerequisite: MATH 099 or equivalent ASSET/COMPASS score.

MATH& 132
Math for Elem Educators 2 (M) (5)
The second of two courses designed to provide the conceptual framework for teaching mathematics from kindergarten through eighth grade. Prerequisite: MATH& 131.

MATH 135
Pre-calculus Refresher (M) (5)
Designed as a refresher course for students who have previously had a Pre-Calculus course. Content includes everything covered in MATH 141 and MATH 142. Prerequisite: High school pre-calculus equivalent or Instructor Approval.

MATH& 141
Pre-Calculus I (M) (5)
Study of elementary functions (polynomial, exponential, logarithmic), systems of equations, matrix algebra. Modeling and problem solving techniques are emphasized from a graphic, symbolic and numeric perspective. Prerequisite: MATH 099 or equivalent placement.

MATH& 142
Pre-Calculus II (M) (5)
Graphical, numerical, symbolic development of trigonometric functions and their inverses as defined on the unit circle and right triangles; identities, equations, and applications; complex numbers, polar coordinates, parametric equations, vectors, conics, and sequences and series. Prerequisite: MATH& 141.

MATH& 146
Introduction to Stats (M) (5)
Introduction to concepts of data collection, organization and summaries. Develop the fundamental concepts of mean, median and standard deviation, probability, probability distributions, and apply these ideas to hypothesis testing, linear regression and analysis of variance. Prerequisite: MATH 099 or equivalent.

MATH 150
Survey of Calculus (M) (5)
Serves the needs of students whose programs demand a relatively brief introduction to the calculus concepts of limit, change, rate of change, and integration with applications in the field biological, social and management sciences. Prerequisite: MATH& 141, MATH 115 or equivalent.

MATH& 151
Calculus I (M) (5)
The first in a four-quarter sequence. Limits, derivatives of algebraic and some transcendental functions, applications of derivatives, the indefinite integral. Topics covered from numerical, analytical and graphical viewpoints. Prerequisite: MATH& 142 or equivalent.

MATH& 152
Calculus II (M) (5)
The second in a four-quarter sequence. Covers the calculus of transcendental functions (exponential, logarithm, inverse circular, hyperbolic), techniques of integration, sequences, series, and power series. Prerequisite: MATH& 151 or equivalent.

MATH 156
Calculus I Lab (1)
Analyze concepts from Calculus I using algebra-based computer software. For students currently enrolled in Calculus I or who have instructor permission. Corequisite: MATH& 151.
MATH 163 Calculus III (5)
Third in a four-quarter sequence. Polar coordinates, parametric equations, vectors, and vector fields, the analytic geometry of three-space, partial derivatives, and multiple integrals. Prerequisite: MATH& 152 or equivalent.

MATH 212 Elementary Differential Equations (5)
Linear ordinary differential equations with emphasis on supporting concepts of differential operators, Wronskians, characteristic polynomials, homogeneous and nonhomogeneous cases, variation of parameters, undetermined coefficients. Solution of IVP by Laplace transforms and power series method. Prerequisite: MATH& 163.

MATH 228 Discrete Mathematics (M) (5)
This class introduces the basic concepts of mathematics that are used in computer science. Topics covered include logic, mathematical induction, combinatorics, set theory, relations and functions and descriptive statistics. Prerequisite: MATH& 141 or equivalent.

MATH 264 Calculus IV (3)
Fourth in a four-quarter sequence. Optimization of 2 and 3 variable functions, Lagrange Multipliers, applications and techniques of multiple integration, Green’s Theorem, Stokes Theorem, and line and surface integrals. Prerequisite: MATH& 163 or its equivalent.

M ST 125 Introduction to Sports Announcing (1)
Learn about the history of Sports Broadcasting. Specific duties of announcers as well as technical knowledge, current trends, career paths, legal and ethical issues of Sports Broadcasting will be covered during the quarter.

M ST 126 Sports Announcing for Football (C) (1)
Learn and apply the basic skills and knowledge required of today’s football announcers. This course will emphasize practical tips, ideas and theories that will help you on your way to becoming a quality football announcer.

M ST 127 Sports Announcing for Basketball (1)
Learn and apply the basic skills and knowledge required of today’s basketball announcers. This course will emphasize practical tips, ideas and theories that will help you on your way to becoming a quality basketball announcer.

M ST 128 Sports Announcing for Baseball (1)
Learn and apply the basic skills and knowledge required of today’s baseball announcers. This course will emphasize practical tips, ideas and theories that will help you on your way to becoming a quality baseball announcer.

M ST 158 Studio & Outdoor Lighting for Television & Film (2)
Discover the basic principles and techniques of lighting television and film sets in both indoor and outdoor situations.

M ST 159 Stagecraft for Television and Film (2)
Designed specifically for television and film majors, this class introduces students to the basic tools, materials, equipment and techniques used in the design and building of television and film sets.

M ST 190 Cooperative Work Experience (1-12) (PT)
See description under COOP 190 for additional information.

M ST 220 Introduction to Broadcast News and Production (4)
Learn basic media news writing, produce and broadcast news and feature stories on both radio and television. Some media production techniques will be covered during the quarter.

M ST 222 Introduction to Telecommunications (5)
The field of telecommunications is constantly changing and affecting the way we live our lives. Learn about the history, social impact, moral, ethical issues and philosophies of telecommunications in our society.

M ST 230 Introduction to Radio Broadcasting (C) (5)
As an introduction to radio broadcasting you will learn about programming philosophies, announcing skills, production techniques, copy writing and the FCC rules and regulations that apply to the industry.

M ST 231 Advanced Radio Broadcasting (3)
Learn strategies to research and prepare material for broadcast. The use of promotions and contests to increase station ratings also will be covered.

M ST 260 Introduction to TV & Video Production for Electronic Media (5)
Learn studio and control room operations, field and studio camera techniques, basic script writing and video editing. At the end of the quarter students will be able to write, produce and edit short videos.

M ST 261 Advanced TV & Video Production for Electronic Media (5)
Improve editing skills while producing documentary and music videos. Advanced camera, editing, studio and field production techniques will be covered. Students will also take part in producing live college basketball games.

M ST 262 Television Production (5)
Students will write, direct, produce and edit video packages and participate as crew members in producing classmate’s video projects.

M ST 271 Radio Broadcasting Internship (1)
Practice and perfect your announcing skills on the campus radio station KCED FM. Prerequisite: M ST 230, 231 or instructor permission.

M ST 272 Radio Broadcasting Internship (2)
Practice and perfect your announcing skills on the campus radio station KCED FM. Prerequisite: M ST 230, 231 or instructor permission.

M ST 273 Radio Broadcasting Internship (3)
Practice and perfect your announcing skills on the campus radio station KCED FM. Prerequisite: M ST 230, 231 or instructor permission.

M ST 274 Radio Broadcasting Internship (4)
Practice and perfect your announcing skills on the campus radio station KCED FM. Prerequisite: M ST 230, 231 or permission of the instructor.

M ST 281 TV Broadcasting Internship (1)
Designed for students who wish to produce independent video projects outside of the classroom environment. Permission of instructor required. Prerequisite: M ST 260, 261, 262.
MA 130 Medical Math (PT) (5)
A mathematics course that focuses on solving applications using percent, proportion, and unit conversion as well as descriptive data interpretation. Satisfies the math requirement for the Medical Assistant ATA. Prerequisite: MATH 096 or equivalent.

MA 139 (Replaces HLSV 260)
MA Medical Terminology (PT) (5)
A required class for all students enrolled in the Medical Assistant Program to develop a medical vocabulary from an anatomy, physiology, and pathology format. It is suitable for others entering medical-related fields.

MA 140 Medical Assisting Introduction (PT) (5)
An introduction to the profession of medical assisting in the ambulatory health care setting. Designed to explore the medical assistant as a valuable member of the health care team. Prerequisite: MA 139 with a 2.5 gpa.

MA 208 MA Electrocardiography (2)
Electrocardiography (ECG) for the medical assistant student: including anatomy of the heart and the cardiac cycle, ECG applications and methods for testing in ambulatory care. Prerequisite: acceptance into 2nd year MA program.

MA 241 (Replaces HLSV 141)
MA Clinical Procedures I (10)
Overview of physical examinations, procedures, and testing that a medical assistant would assist a health care provider within an ambulatory care setting. Prerequisite: HLSV 140, MA 241, 242, 246.

MA 242 (Replaces HLSV 142)
Medication Administration (6)
An overview of pharmacology and medication administration as it applies to the medical assistant's responsibilities in ambulatory care. Prerequisite: HLSV 140, MA 241.

MA 243 (Replaces HLSV 143)
MA Clinical Procedure II (6)
Surgical setup for clinical/office procedures explored in detail; review of the role of diagnostic imaging, rehabilitation, and nutrition in the interdisciplinary approach of patient care. Prerequisite: HLSV 140, MA 241, 242, 246.

MA 244 (Replaces HLSV 144)
MA Externship Seminar (1)
This class allows the medical assistant extern to explore objectives and challenges in bridging their classroom/lab experiences to the experiences they are encountering in their externships. Prerequisite: HLSV 140, MA 241, 242, 246.

MA 245 (Replaces HLSV 145)
MA Clinical Externship (6)
One hundred eighty unpaid hours of externship in an ambulatory health care setting that allows the medical assistant student to bridge their classroom education and lab training to the real world medical setting. Prerequisite: HLSV 140, MA 241, 242, 246.

MA 246 (Replaces HLSV 146)
MA Laboratory Procedures (5)
Overview of laboratory procedures and regulations for the ambulatory health care setting, including phlebotomy training. Prerequisite: HLSV 140, MA 241.

MA 249
MA Administrative Procedures (8)
Administrative protocols and procedures related to front and back office responsibilities in an ambulatory care setting; with emphasis on communications, medical records management, and fiscal management practices. Prerequisite: acceptance into 2nd year MA program.

MUSIC

MUSIC 100
Music Reading (2)
Designed for the student that has not previously had exposure to reading music. The skills acquired can be used to perform, create music, or enter the field. Practice rooms with pianos are available at the college.

MUSIC& 105
Music Appreciation (H) (5)
Explores music's history from the early beginnings of music into the twenty-first century. Topics include: elements of music, appreciation process, musical styles, music history, sound, musical instruments, and listening techniques. No prior music knowledge is required.

MUSIC 108
Piano I (1)
Introductory piano. Emphasizing basic keyboard skills, music reading, and conceptual understanding pertinent to early level study. Includes transposition, harmonization, sight reading, improvisation, and basic keyboard repertoire. Pre/corequisite: MUSIC& 131.

MUSIC 109 & 110
Piano II-III (1)
Continued piano study for the non-keyboard music major. Emphasizes arpeggios, inversions, seventh chords, modes, pedaling and performance of elementa-ry-level repertoire. Prerequisite for MUSIC 109: MUSIC 108 with a minimum grade of 2.5 or instructor permission. Prerequisite for MUSIC 110: MUSIC 109 with a minimum grade of 2.5 or instructor permission.

MUSIC 114
Fundamentals of Music for Education (3)
A beginning music course to prepare elementary education majors for the upper division course or courses required which they will take to complete the education degree. Also aimed at the student seeking an AA degree who may have an interest in learning the mechanics of music reading and composition. In addition this course can be taken in preparation for those students who wish to major in music but who do not have enough basic skills to begin the Music Theory Sequence.

MUSIC 115, 116, 117
Applied Music-I-III (1)
Study of specific instrument literature and techniques applied to performance. Required of all music majors. By audition and permission of instructor only.

MUSIC& 121
Ear Training I (H) (2)
An aural study of musical scales and intervals, designed for music majors and minors. Emphasis on dictation, sight singing, functional keyboard skills. Required of all music majors. (Music majors are required to register for MUSIC& 131 with MUSIC& 121) Prerequisite: Music reading skill.

MUSIC& 122
Ear Training II (2)
An aural study of musical scales and intervals, designed for music majors and minors. Emphasis on dictation, sight singing, functional keyboard skill. Required of all music majors. The student must simultaneously register for MUSIC& 132. Prerequisite: MUSIC& 121 or permission of instructor.

MUSIC& 123
Ear Training III (2)
An aural study of musical scales and intervals, designed for music majors and minors. Emphasis on dictation, sight singing, functional keyboard skills. Required of all music majors. Students must simultaneously register for MUSIC& 133. Prerequisite: MUSIC& 122 or permission of instructor.

MUSIC 130
History of Western Music (H) (5)
Introduction to musical elements, musical form, and stylistic periods in western music.

MUSIC& 131
Music Theory I (H) (3)
A technical study of music, designed for music majors and minors. Emphasis on part-writing, harmonization of melody and harmonic analysis. Required of all music majors. Prerequisite: Ability to read music Corequisite: MUSIC& 121.
MUSC& 132
Music Theory II (3)
A technical study of music, designed for music majors and minors. Emphasis on part-writing, harmonization of melody and harmonic analysis. Required of all music majors. Prerequisite: MUSC& 131 or permission of instructor. Corequisite: MUSC& 122.

MUSC& 133
Music Theory III (3)
A technical study of music, designed for music majors and minors. Emphasis on part-writing, harmonization of melody and harmonic analysis. Required of all music majors. Prerequisite: MUSC& 132 or permission of instructor. Corequisite: MUSC& 123.

MUSC 139
Music of the World (D) (H) (5)
A music survey of diversity found in music around the world. Examines music as accompaniment to ceremony and ritual, aid to work and routine, and an expression of universal unchanging human emotions. Prior musical experience is not necessary. Prerequisite: Proficiency in reading, grammar skills.

MUSC 140
History of American Popular Music (D) (H) (5)
Exposure to styles of American popular music from the 1890's to the present. The development of four American styles: Blues, Ragtime, Dance and Jazz showing the evolution of American popular music. Prior musical training is not required. Prerequisite: Proficiency in reading, grammar skills.

MUSC 144, 145, 146, 147, 148, 149
Choir I-VI (2)
A vocal group consisting of the part distribution: soprano, alto, tenor, and bass. Will perform both sacred and secular music literature. Participation in one evening concert per quarter is mandatory. Previous choral experience not necessary. Prerequisite: by audition only.

MUSC 215, 216, 217
Applied Music IV-VI (1)
Study of specific instrument literature and techniques applied to performance. Required of all music majors. By audition and permission of instructor only.

MUSC& 221
Ear Training IV (2)
An aural study of musical scales and intervals, designed for music majors and minors. Emphasis on dictation, sight singing, functional keyboard skills. Required of all music majors. Prerequisite: MUSC& 123 or permission of instructor. Corequisite: MUSC& 231.

MUSC& 222
Ear Training V (2)
An aural study of musical scales and intervals, designed for music majors and minors. Emphasis on dictation, sight singing, functional keyboard skills. Required of all music majors. Prerequisite: MUSC& 221 or permission of instructor. Corequisite: MUSC& 232.

MUSC& 223
Ear Training VI (2)
An aural study of melody, harmony and musical form, designed for music majors and minors. Emphasis on dictation and sight singing. Required of all music majors. Prerequisite: MUSC& 222 or permission of instructor. Corequisite: MUSC& 233.

MUSC& 231
Music Theory IV (3)
An advanced technical study of western music. Emphasis on modulation, advanced harmonic analysis including secondary dominants, diminished seventh chords, augmented sixth chords, and Neapolitan sixth chords. Prerequisite: MUSC& 133 or permission of instructor. Corequisite: MUSC& 221.

MUSC& 232
Music Theory V (3)
An advanced study of musical harmony and form. Study of chords with extensions. Emphasis placed on analysis of music of the romantic period. Music Majors must also register simultaneously for the course, MUSC& 222 (Ear Training V). Prerequisite: MUSC& 231 or permission of instructor; corequisite: MUSC& 222.

MUSC& 233
Music Theory VI (3)
A technical study of music of the twentieth century. Emphasis is placed on analytical skill for music of this century both tonal and atonal. Music majors must also register simultaneously for the course, MUSC& 223. Prerequisite: MUSC& 232 or permission of instructor; corequisite: MUSC& 223.

MUSC 234, 235, 236, 237, 238, 239
Jazz Band I-VI (2)
Jazz ensemble consisting of the following instrumentation: saxophone, trumpet, trombone, piano, bass, guitar and percussion. Perform both on and off campus. Participation in one evening concert is mandatory. Auditions held on first day of class. Prerequisite: by audition only.

MUSC 244, 245, 246, 247, 248, 249
Performance Ensemble I-VI (1)
An ensemble is for the advanced performer (Instrumentalists or Vocalists). Music reading is imperative. Will perform many styles of music. Concert performances will be both on and off campus and/or tour. By audition ONLY.

MUSC 250
Musical Theatre Production I (H) (5)
Designed to introduce the student to all the elements of musical theatre. The student will study the audition process, the effect of musical choreography, the historical setting of the work chosen, musical score and dialogue.

MUSC 251
Musical Theatre Production II (5)
The student will continue to study the audition process, the effect of musical choreography, the historical setting of work chosen, musical score and dialogue. Prerequisite: by audition only.

MUSC 254, 255, 256, 257, 258, 259
Vocal Ensemble I-VI (2)
A small vocal ensemble that prepares and performs chamber works, and contemporary vocal literature. Placement is by audition only. Auditions will take place during the first scheduled class.

MUSC 264
Music History I (D) (5)
Traces the development of musical composition from antiquity and the early Christian era, through the Baroque era. Music listening is a strong component of the course.

MUSC 265
Music History II (5)
Traces the development of musical composition from the pre-classical period through the Romantic era. Students are introduced to a wide variety of musical styles, chronologically and geographically.

MUSC 266
Music History III (5)
Studies the development of music from the early twentieth century through contemporary music of the twenty first century. Music listening will be a strong component of the course.

MUSC 276
Music Technology (5)
Detailed study of Finale and Pro Tools used by music institutions of higher education and industry. Required of all music majors. Corequisite: MUSC 121 or MUSC 131.

MUSC 281, 282, 283, 284, 285, 286
Instrumental Improvisation I-VI (2)
An historical study of improvisation in instrumental styles: Dixieland, jazz, and contemporary popular music. Course will involve stylistic and chordal analysis as well as performance on the student's major instrument.
NATURAL RESOURCES

NATR 131 Plants of the Pacific Northwest (5)
Basic biology, life history and distribution of plants of the Pacific Northwest, emphasizing major tree species. Laboratory exercises focus on taxonomy and identification methods. An accelerated two-week course: first in a three part series. Prerequisite: ENGL 099, placement in ENGL& 101 or instructor permission.

NATR 150 Disturbance Ecology (5)
Investigation of forces that change forest and riparian plant communities: fire, wind, floods, and insects and diseases endemic to the Pacific Northwest. An accelerated two-week course; second part of a three-part series. Prerequisite: ENGL 099 or placement in ENGL& 101 or instructor permission.

NATR 160 NW Terrestrial Habitats (5)
Exploration of diverse Pacific Northwest ecosystems. Succession, plant associations, site characteristics, biodiversity, population ecology and community ecology are studied within the context of ecosystem sustainability. A two-week, accelerated course; third in a three-part series. Prerequisite: ENGL 099 or placement in ENGL& 101 or instructor permission.

NATR 191 Work Experience Seminar (1) (PT)
Preparation for cooperative work experience required for the Natural Resources-Forestry Technician program: job applications, resumes, cover letters, interview techniques, and employment research.

NATR 260 Forest Mensuration w/lab (5)
Forestry measurement requirements, such as timber cruising, log scaling, tree grading, inventory techniques, and computer applications. Labs, some in the field, emphasize equipment and techniques necessary to measure forest resources. Prerequisite: ENGL 099, MATH 099 or college-level placement or instructor permission.

NATR 265 Forest Management w/lab (5)
Contemporary forest management principles, economics and concepts. Emphasizes sustainable forest management; certification systems, fragmentation and current forest rules including policy and regulatory issues on the state and federal levels.

NATR 270 Silviculture w/lab (5)
Forestry fundamentals, including methods of regeneration, site preparation, planting practices, animal damage control, nursery practices, pesticide/herbicide use and safety, prescribed burning, pre-commercial and commercial thinning and harvest treatments.

NATR 280 Harvest Systems and Products w/lab (5)
Forest harvest techniques; includes transport systems, logging plans, wood products and other forest products, road layout and construction, best management practices, timber appraisal and contracts.

NURSING

NURS 100 Introduction to Nursing (1) (PT)
The definition, function, responsibilities, and current and historical roles of the nurse and other health care personnel are presented. Nursing theory, educational requirements, law, and ethics of nursing practice are included.

NURS 101 Basic Nursing Care Concepts (12) (PT)
Program themes of homeostasis, the role of the nurse, and continuum of care are applied at on-campus theory and skills labs and off-campus clinical experiences at assisted living and long-term care facilities. Prerequisite: admission to the Centralia College Nursing Program.

NURS 102 Common Alterations I (12) (PT)
Progressive competencies reflecting program themes are applied to nutrition; cardiovascular, respiratory, and endocrine systems; medication and fluid administration. On-campus theory, skills labs and off-campus clinical experiences are provided. Prerequisite: NURS 101 or equivalent.

NURS 103 Common Alterations II (12) (PT)
Progressive competencies reflecting program themes are applied to surgical, neurologic, musculoskeletal, renal, and gastrointestinal nursing care. On-campus theory and skills labs and off-campus acute care clinical experiences are provided. Prerequisite: NURS 101, 102 or equivalent.

NURS 108 Electrocardiography for Health Care Professional (2) (PT)
Review of cardiac anatomy and physiology; ECG equipment operation and supplies; patient preparation; ECG testing procedure; rhythm recognition and interpretation; cardiovascular disorders; pharmacology in ECG testing. Includes hands on ECG training and practice. Corequisite: RN, LPN, or nursing student or instructor permission.

NURS 110 Nursing Care Management (4) (PT)
Presents basic concepts related to managing and directing members of a team, including delegation, communication, and evaluation. Emphasizes decision-making in the leadership role within the scope of practice for the practical nurse. Prerequisite: ENGL 101 and NURS 102

NURS 190 Cooperative Work Experience (1-5) (PT)
See description under COOP 190 for additional information.

NURS 200 LPN to RN Transition (2)
Explores LPN and RN roles and responsibilities. Centralia College Nursing Program philosophy, purpose, conceptual framework, and outcome criteria are reviewed. Includes orientation to clinical facilities and classroom, campus, and off-campus lab expectations. Prerequisite: Admission to RN program.

NURS 201 Mental Health & Lifespan (10)
Progressive competencies reflecting program themes are applied to the care of clients with mental health alterations, complications of child-bearing and high-risk newborns and children. Community-based and in-patient clinical experiences are provided. Corequisite: NURS 101, 102 & 103 or equivalent.

NURS 202 Complex Alterations (12)
Progressive competencies reflecting program themes are applied to the care of clients with complex alterations in health. Women's Health and Pediatric and Adult acute care clinical opportunities are provided at regional facilities. NURS 201 and 220 or equivalent.

NURS 203 Complex Management (8)
Progressive competencies reflecting program themes are applied to the care of clients with complex alterations in health. Community-based and acute care inpatient clinical opportunities are provided at regional facilities. Prerequisite: NURS 201 and 202 or equivalent.

NURS 210 BLS for Healthcare Providers (1)
Covers the information and skills needed for adult, child, and infant cardiopulmonary resuscitation; the use of an automated external defibrillator; recognition and treatment of choking; safety factors in training and actual rescue. Corequisite: admission to the nursing program or permission of the instructor.
NURSING ASSISTANT

HLSV 110
BLS for Healthcare (1) (PT)
Course covers the information and skills needed for adult, child, and infant cardiopulmonary resuscitation; the use of an automated external defibrillator; recognition and treatment of choking; safety factors in training and actual rescue.

HLSV 121
Intro to Healthcare (2) (PT)
The complexity of health care, health care provider certifications and team concepts will be introduced. Professionalism, safe patient handling, physical/emotional changes with aging, and specific infection control issues for all care givers will be explored.

HLSV 130
Basic Fundamentals of Caregiving (2) (PT)
Focus is on the requirements for basic caregiving. Topics include client rights, communication, problem solving skills, and protecting the health and safety of residents.

HLSV 131
Nursing Assistant Certification (9) (PT)
Awareness of the role of the nursing assistant in nursing care and skill development. Topics: maintain a safe environment, provide restorative care, communication, and practice basic concepts of care. Background check is required for clinical.

NURSING

HLSV 132
Nurse Delegation (2) (PT)
Class is for Washington State caregivers who work in or will work in specific community-based long-term care settings. Course covers: medication administration, diabetes care, roles and laws pertaining to delegation and hands-on skills practice. Prerequisite: NAC Certification or co-enrollment in NAC.

HLSV 133
Mental Health (1) (PT)
Learn how a caregiver, in a generalized residential setting, can work effectively with a person who has a major mental disorder. Prerequisite: NAC certification or currently enrolled in NAC course.

HLSV 134
Dementia (1) (PT)
Learn how a caregiver, in a generalized residential setting, can work effectively with a person who has memory impairments. Prerequisite: NAC certification or currently enrolled in NAC course.

HLSV 163 (Replaces HLTH 163)
Emergency Medical Responder (5) (PT)
This course prepares students for certification as a First Responder in the State of Washington. Both lecture and hands-on practical training are used to teach important aspects of basic pre-hospital emergency care.

NUTRITION

NUTR& 101
Nutrition (5) (S)
An exploration of the six basic nutrients with diet planning principles, human metabolism, weight control and digestion also being studied. Some chemistry or biology background is helpful. Prerequisite: prior knowledge of chemistry or biology would be helpful.

NUTR 202
Nutritional Laboratory (1)
Consumer-oriented labs will teach students how to analyze their diet, apply nutrition knowledge to menu planning and reading food and supplement labels. Prerequisite: NUTR 201, HLTH 140 or permission of instructor.

NUTR 203
Issues in Nutrition (5) (S)
Examines the interrelationship between diet and individual lifestyles with regard to health risks during all stages of life.

OCEANOGRAPHY

OCEA& 101
Introduction to Oceanography (5) (S)
Explore the physical, geological, chemical and biological characteristics of the ocean: waves and tides, ocean and atmosphere circulation, coastal features and beach processes, ocean basins, sediments, ocean chemistry and physics, plate tectonics, and marine life. Corequisite: OCEA& 101L is integrated.

PHILOSOPHY

PHIL& 101
Introduction to Philosophy (H) (5)
Investigate the assumptions philosophers have made about reality, knowledge, truth, God, morality, social construction, freedom, and paternalism.

PHIL 103
Introduction to Ethics (H) (5)
Focus on choices made in concrete circumstances. Study traditional ethical theories and present-day moral dilemmas.

PHYSICAL EDUCATION

P E 101
Introduction to Physical Education (3)
A survey course designed for students considering a career in physical education, recreation and sports. Presents background information for the wide scope of career opportunities.

P E 103
Basketball (1)
This course will cover the basic skills and techniques of basketball. Includes team defense and team offense.

P E 107
Cycling Basics (HF) (2)
A class consisting of road tours of varying distances as well as classroom lectures. Each student must have a bicycle in good repair and an approved helmet.

P E 109
Golf (1)
Instructions for beginners, fundamentals, rules, and etiquette. Off campus but first class will meet in HWC 103.

P E 110
Physical Fitness (HF) (1)
Study all five areas of fitness: aerobic endurance, muscle strength, muscle endurance, flexibility, and body composition. Students work at their own fitness levels.
P E 111
Fitness in the Workplace (HF) (1-2)
Course will increase cardiovascular endurance, flexibility, and increase strength. Students will develop and conduct their own personal fitness program.

P E 115
Volleyball (1)
This course will cover the fundamental skills and techniques of beginning volleyball. Includes basic rules, scoring and strategy.

P E 117
Lifeguard Training (2)
Students will obtain the knowledge and skills needed to prevent and respond to aquatic emergencies. Upon successful completion of this class a student will obtain the American Red Cross Lifeguarding certificate. Prerequisite: PE 114 or instructor permission.

P E 120
Lifestyle Management and Exercise (HF) (2)
Designed to assist individual in making lifestyle changes associated with health and fitness.

P E 123
Basic Weight Training/Conditioning (HF) (1)
Designed to condition the musculature of the body using machine and free weights.

P E 125
Free Weights (HF) (1)
Designed to develop muscle fitness through lifting free weights, Olympic lifts, plyometrics and power lifting. Students need prior weight training experience.

P E 130
Basketball Applications (3)
A course designed to provide experience in advanced strategies, fundamental skills, and team concepts of basketball. Prerequisite: PE 103, 167 or instructor permission.

P E 131
Baseball Application I (3)
Learn the techniques and strategies in a practice or game situation with an emphasis on fundamentals, conditioning, team concept and sportsmanship.

P E 139
Volleyball Applications (3)
A course designed to provide experiences in advanced strategies, skills, and team concepts of volleyball. Prerequisite: PE 115 or instructor permission.

P E 140
Boot Camp Basics (HF) (1)
A high-impact exercise class designed to improve muscle strength, endurance, flexibility and aerobic capacity.

P E 142
Cardio Combo (HF) (1)
A combination of cardio experiences to improve cardiovascular endurance, body composition, muscle fitness and flexibility. A variety of movements will be explored, including step aerobics, kickboxing, Drums Alive, Zumba, and circuits and weights.

P E 150
Yoga (HF) (1)
An exercise class integrating components of flexibility, muscular strength and endurance, and relaxation. Students will be encouraged to work at their own level of fitness.

P E 151
Aerobic Fitness/Walking (HF) (1)
A fitness program emphasizing aerobic activities only. Designed to develop cardiovascular endurance, flexibility and body composition.

P E 152
Pilates/Core (HF) (1)
An exercise class designed to teach breathing with movement, body mechanics, balance, coordination, spatial awareness, strength and flexibility.

P E 153
Tai Chi Basics (HF) (1)
Develop balance, lower-body strength and relaxation in motion with Wu Style Tai Chi. Students will work at their own level of fitness.

P E 158
Beginning Tae Kwon Do (HF) (2)
Develop balance, coordination, agility, spatial awareness, strength, and flexibility through the Korean art of Tae Kwon Do. Students will work at their own level of fitness.

P E 159
Intermediate Tae Kwon Do (2)
Further development of the techniques, forms, the sport, and self-defense aspects required to advance to blue belt in the Korean martial art of Tae Kwon Do.

P E 160
Advanced Tae Kwon Do (2)
Further development of the techniques, forms, the sport, and self-defense aspects required to advance to blue and orange belt in the Korean martial art of Tae Kwon Do.

P E 162
Softball Fundamentals (1)
A mental and physical approach to the fundamentals of fast pitch softball. An emphasis will be placed on the basic skills and concepts needed to play the game effectively.

P E 163
Step Aerobics (HF) (1)
Combines simple, low impact step movements with music to improve cardiovascular endurance, flexibility and body composition.

P E 164
Softball Theory (3)
An analysis of the mental approach to the game of softball. An emphasis will be placed on the theories and strategies of fast pitch.

P E 165
Softball Applications I (3)
Learn how to apply the fundamentals of softball in game like situations.

P E 166
Baseball Fundamentals (1)
On-the-field practice in development of the basic fundamentals of baseball. Emphasis on basic skills and conditioning.

P E 167
Basketball Fundamentals (1)
This course will implement basic fundamentals with theory of various phases of the game. Conditioning for a lifetime activity is an important aspect of the course.

P E 168
Lifetime Fitness (HF) (2)
Cardiovascular endurance, muscle fitness, weight management and flexibility will be studied. One lecture hour and two hours of activity per week.

P E 169
Cardio Kickboxing (HF) (1)
Designed to offer high-impact aerobic conditioning. Each week new basic body moves and techniques introduced to improve the individual's level of fitness.

P E 172
Theory of Baseball (3)
A practical course with emphasis on the coaching of offensive and defensive strategies, theory, psychology and basic rules. First class meets in the Gym.

P E 174
Team Games (3)
Planning, organizing and proper supervising of physical education team game activities. Practical experience in presentation, evaluation and safety in team games.
P E 175
Physical Education Activities/Elementary Level (3)
Instruction in organization, skills and rules of various games. Opportunity for planning, organizing, creating and leading activities suitable for elementary and middle school age levels.

P E 180
Officiating Basketball (3)
A course designed for physical education and recreation majors. Presentation of rules and techniques involved in officiating basketball. Practical officiating experience in a laboratory situation to be included.

P E 181
Officiating Team Sports (2)
Designed to present the rules and techniques involved in officiating basketball, volleyball, and soccer. Required for Physical Education Teaching majors but open to the public. Practical officiating experience in a laboratory situation to be included.

P E 203
Advanced Basketball (1)
This course will review basic skills and techniques of basketball. Included in the course also will be advanced skills and techniques along with game strategies, team offense, and team defense. Prerequisite: PE 110 or instructor permission.

P E 209
Advanced Golf (1)
The course is designed to help the individual develop more advanced skills and strategies of golf. Prerequisite: PE 109 or instructor permission. First class meets in the Gym.

P E 210
Advanced Physical Fitness (HF) (1)
Designed to continue the individual's personal health-related physical fitness - cardiovascular, muscular strength, muscular endurance, body composition and flexibility. Students will be encouraged to work at their own level of fitness. Prerequisite: PE 110 or instructor permission.

P E 213
Advanced Tennis (1)
For students who are more advanced than the beginning level in tennis. First class will meet in the gym classroom. Borst Court will be used.

P E 215
Advanced Volleyball (1)
Advanced techniques and skills included in competitive volleyball. Advanced offensive and defensive tactics and strategy will be covered. Prerequisite: PE 115 or instructor permission.

P E 223
Advanced Weight Training (HF) (1)
Advanced weight training methods and programs including Olympic lifting and power lifting programs. Prerequisite: PE 123.

P E 228
Advanced Modern Dance (1)
The development of creative dance movements with emphasis on form and choreography. Prerequisite: PE 128 or instructor permission.

P E 229
Physical Fitness Concepts (HF) (3)
A combination of theory and practice in the development of physical fitness. Two lecture hours and two activity hours per week.

P E 230
Advanced Basketball Applications (3)
A course designed to provide experiences in advanced strategies, advanced fundamental skills, and advanced team concepts of basketball. Prerequisite: PE 130 or instructor permission.

P E 231
Baseball Application II (3)
Learn advanced techniques and strategies in a practice or game situation with an advanced emphasis on fundamentals, conditioning, team concept and sportsmanship. Prerequisite: PE 131 or instructor permission.

P E 239
Advanced Volleyball Applications (3)
Provides experiences in advanced techniques and tactics needed to execute advanced team concepts of volleyball.

P E 251
Advanced Aerobic Fitness/Walking (HF) (1)
Advanced aerobic conditioning class for the well-conditioned aerobic athlete. Prerequisite: PE 151.

P E 252
Advanced Softball Fundamentals (1)
Continuation of the physical and mental skills needed for playing fast pitch softball. Emphasis will be on a variety of strategies utilized in the game of softball.

P E 262
Advanced Softball Theory (3)
An advanced analysis of the mental approach to the game of softball. An emphasis will be placed on the theories and strategies of fast-pitch. Prerequisite: PE 164.

P E 265
Softball Applications II (3)
Learn how to apply the advanced techniques of softball in game-like situations. Prerequisite: PE 165 or instructor permission.

P E 266
Advanced Baseball Fundamentals (1)
On the field practice in development of the advanced fundamentals of baseball. Emphasis on advanced skills, strategies, and techniques. Prerequisite: PE 166 or instructor permission.

P E 267
Advanced Basketball Fundamentals (1)
More advanced skills practiced. Prerequisite: PE 167 or instructor permission.

P E 269
Advanced Cardio Kickboxing (HF) (1)
Designed to offer high-impact aerobic conditioning with the addition of hand weights. Each week more involved forms of body moves and techniques introduced to improve the individual's level of cardiovascular fitness. Prerequisite: PE 169.

P E 271
PE Practicum I (1)
Physical Education Majors will observe K-6 Physical Education teachers. Exercise Science Majors will observe a commercial Fitness Center. Both majors will attend seminars to discuss their findings. Prerequisite: EDUC 201 or concurrent enrollment or instructor permission.

P E 272
Physical Education Practicum II (1)
Physical Education Majors will observe Middle School Physical Education teachers. Exercise Science Majors will observe a medical setting. Both majors will attend seminars to discuss their findings. Prerequisite: PE 271 or instructor permission.

P E 273
Physical Education Practicum III (1)
Physical Education Majors will observe Physical Education teachers in the high school setting. Exercise Science Majors will observe a community recreation program. Both majors will attend seminars to discuss their findings. Prerequisite: PE 272 or instructor permission.

P E 275
Prevention and Care of Athletic Injuries (3)
The prevention, recognition, and care of athletic injuries.
PHYSICS

PHYS 110
Physics: Non-Science Majors w/lab (formerly PHYS 100) (S) (5)
A survey of physics with applications in everyday life for non-science majors. Basic concepts in Newtonian mechanics, thermodynamics, electricity, magnetism, optics, and modern physics. Requires knowledge of basic algebra. Includes a 2 hour lab.

PHYS 114
General Physics I w/lab (S) (5)
Fundamentals of classical mechanics. The first of a three quarter sequence for science majors not requiring calculus based physics. Classical mechanics including statics and dynamics of particles, rigid bodies, and fluids. Prerequisite: two years of HS algebra and trigonometry or concurrent enrollment in MATH 110.

PHYS 115
General Physics II w/lab (S) (5)
Fluids, electrostatics, simple circuits, and the fundamental laws of thermodynamics. A continuation of PHYS 114. Prerequisite: PHYS 114.

PHYS 116
General Physics III w/lab (S) (5)
Magnetism and A.C. circuits, optics, and modern physics. Includes Laws of Faraday, Lenz, and Ampere, geometrical and physical optics, special relativity, atomic and nuclear physics. A continuation of PHYS 114 and PHYS 115. Prerequisite: PHYS 115.

PHYS 221
Engineering Physics I (S) (5)
First in a three quarter calculus-based sequence for science and engineering majors stressing classical mechanics. Includes dynamics of translational, rotation, and oscillatory systems of solids, particles and fluids. Prerequisite: MATH 151 and corequisite: MATH 152.

PHYS 222
Engineering Physics II w/lab (S) (5)
Wave motion, thermodynamics, and electrostatics. Includes sound, heat transfer, law of thermodynamics, and electric fields. Prerequisite: PHYS 221 and MATH 152 and corequisite: MATH 153.

PHYS 223
Engineering Physics III (S) (5)
Optics modern physics, electricity and magnetism. Includes geometrical and physical optics, Maxwell’s equations, AC/DC circuits and special relativity. Prerequisite: PHYS 222 and MATH 153.

PHYS 270
Research in Physics (1-12)
Design a research project, set up experiments, collect data in the lab or in the field, and/or analyze data. Each credit hour requires 33 hours of activity per quarter. Prerequisite: instructor permission.

POLITICAL SCIENCE

POL 101
Introduction Political Science (SS) (5)
Exploration of the fundamentals of political science: key concepts, principles, and theories. Analyze why and how leaders make the decisions they do, and why citizens obey most of these decisions.

POL 202
American Government (SS) (5)
Students will examine the American political structure and its ideological roots. We will explore how the structure is organized and how it operates.

POL 204
Comparative Government (D) (SS) (5)
Examine political theory and application within a comparative framework: ideology, nature of participation, as well as a variety of governmental structures, and functions. Contemporary situations will provide the cases for example and analysis.

POL 220
International Terrorism (5)
An introduction to terrorism in contemporary society, focusing on the underlying political, social, economic, cultural, and religious causes, its use as a political tool and measures to be taken to counter and prevent its use.

PSYC 100
Abnormal Psychology (5)
An introduction to the study of abnormal behavior, including behavioral problems, personality disorders and maladjustment, and the study of the causes, diagnoses, and treatment. Prerequisite: PSYC 100 or instructor permission.

PSYC 202
Biopsychology (5)
Biopsychology, studies the branch of neuroscience that explains human behavior in terms of the biology of the brain, including mechanisms that produce motivation, emotion, and aggression. Prerequisite: PSYC 100.

PSYC 209
Research Methods (5)
Overview of scientific method, major research designs, statistical concepts and utilization of materials related to scientific journals. Prerequisites: PSYC 100 (may be currently enrolled), eligible for ENGL 101 and college-level math.

PSYC 210
Introduction to Personality (5)
An introduction to the study of personality, including major theories, with a focus on basic principles of psychology and their application to personality development, personal growth and psychological adjustment. Prerequisite: PSYC 100 or instructor permission.

PSYC 220
Social Psychology (5)
The scientific study of how a person’s thoughts, emotions and behaviors are influenced by other people. Includes an exploration of: propaganda, persuasion, social cognition, human aggression, prejudice, love, and interpersonal sensitivity. Prerequisite: PSYC 100 or instructor permission.

PSYC 250
Biopsychology (5)
Biopsychology, studies the branch of neuroscience that explains human behavior in terms of the biology of the brain, including mechanisms that produce motivation, emotion, and aggression. Prerequisite: PSYC 100.

PSYC 270
Research in Psychology (1-12)
Design a research project, set up experiments, collect data in the lab or in the field, and/or analyze data. Each credit hour requires 33 hours of activity per quarter. Prerequisite: instructor permission.

READING

READ 096
Independent Study (1-5)
Individualized instruction for the student whose needs are not currently being met by the available course offerings. Specialized curriculum and instruction are developed to meet each student’s needs. Permission of instructor only.
**READ 097**  
**Specific Reading Skill Development (1-3)**  
This course is designed to provide students with opportunities to improve their reading specifically identified areas of need. Comprehension building, word attack skills, and content area reading are a few of the specific areas that can be targeted by this class.

**READ 099**  
**Improvement of Reading (1-5)**  
Students strengthen thinking, reading comprehension, and vocabulary skills in learning to read and study textbooks, writing summaries, note taking, and test taking. Completion of course satisfies the basic skill deficiency in reading. Prerequisite: ASSET placement (reading) 33-41.

**READ 100**  
**Technical Reading (3)**  
Designed to teach discipline-specific reading strategies useful to students in both vocational and academic areas. It will also teach awareness of academic thought processes and present skills to enhance that thinking process.

**READ 110**  
**Speed Reading (3)**  
Self-paced course for students wishing to increase reading rate and comprehension using proper eye movements, improved vocabulary, and correct reading methods based on reading material. Prerequisite: college level reading and vocabulary skills.

**SCIENCE**

**SCIE 103**  
**Survey of Earth Sciences (S) (5)**  
Explores topics in earth sciences: geology, oceanography, meteorology, astronomy. Earthquakes, volcanoes, glaciers, streams, floods, landslides, tides, coastal features, weather and climate, planets and stars. Integrates information about the relationship between humans and the physical environment. SCIE 103L must be taken concurrently or a later quarter to satisfy the requirement for a science course with a lab. Designed for students with little or no science background.

**SCIE 103L**  
**Survey of Earth Sciences Lab (S) (0)**  
Explore topics in earth sciences through campus laboratories, correspondence exercise and/or field trips. Requires prior or concurrent enrollment in SCIE 103 or instructor permission.

**SCIE 104**  
**Introduction to Physical Science w/lab(S) (5)**  
Study the basic concepts of physical science, learn to apply the scientific method to problem solving and popular science, and apply the scientific methods to a project.

**SCIE 115**  
**Weather and Climate (S) (5)**  
Study of Earth’s atmosphere, atmospheric processes, weather, climate, and climate history. Experience will be provided in weather map interpretation, use of instruments, forecasting, interpretation of past climate conditions, and hands-on dendrochronology. Prerequisite: MATH 098 or equivalent.

**SCIE 115L**  
**Weather and Climate Lab (S) (0)**  
Explore topics in meteorology through problem solving, and laboratory or home exercises. Prerequisite: concurrent enrollment in SCIE 115 or instructor permission.

**SOCILOGY**

**SOC& 101**  
**Intro to Sociology (SS) (5)**  
Study of society and human interaction. Topics include social ranking, change, deviance, social control, the creation of thought and personality, groups, institutions, political and economic power, social movements, and how to gather valid sociological information.

**SOC 125**  
**Sociology of the Family (SS) (5)**  
Introduction to the study of the family as a social institution. An overview of social theories and methodological underpinnings will be included.

**SOC 190**  
**Cooperative Work Experience (1-12) (PT)**  
See description under COOP 190 for additional information.

**SOC& 201**  
**Social Problems (SS) (5)**  
Investigate problems within society and how we view certain social conditions as social problems. Topics include technology, environment, population, economy, class, race/ethnic relations, sexism, ageism, family problems, education, cities, deviance, crime, mental health, physical health.

**SOC 225**  
**Cultural & Ethnic Pluralism in Contemporary Society (D) (SS) (5)**  
Examine ethnicity, ethnic identity, and cultural characteristics of ethnic and social groups in North America and around the world. Understand the relationship between social organization and forms of social, economic, and political domination and subordination.

**SPANISH**

**SPAN 105**  
**Spanish for Public Service (3)**  
Basic Spanish to meet the needs of working professionals who wish to communicate with Spanish speaking persons.

**SPAN 106 & 107**  
**Spanish for Social Services (3)**  
Basic Spanish to meet the needs of working professionals who wish to communicate with Spanish speaking persons.

**SPAN& 121, 122, 123**  
**Spanish I-III (H) (5)**  
Learn the fundamental skills of listening comprehension, speaking, reading and writing. Develop an awareness of Spanish speaking countries and their cultures. Compact discs are used outside of class to promote oral proficiency.

**SPAN& 221, 222, 223**  
**Spanish IV-VI (H) (5)**  
Discuss Hispanic cultures in Spanish, develop oral and written skills, review and expand essential points of grammar, and build vocabulary. Prerequisite: SPAN& 123 or permission of instructor.

**SPEECH**

**SPEE 101**  
**Fundamentals of Public Speaking (H) (3)**  
A course focusing on development, preparation, and delivery skills for beginning public speakers. Attention given to anxiety reduction techniques in addition to the preparation and use of visual aids in informative and persuasive speeches.

**SPEE 110**  
**Principles of Speech Communication (H) (5)**  
Introduction to principles of human communication emphasizing interpersonal/intercultural relationships, group process, and problem-solving skills; designing, preparing, and delivering effective informative and persuasive speeches; reducing anxiety; and preparing and using visual aids.

**SPEE 111**  
**Interpersonal Communication in Film (1)**  
Highlights concepts introduced in SPEE 110 by using films to identify a different application of the principles of interpersonal communication.

**SPEE 220**  
**Theory and Practice of Public Speaking (H) (5)**  
Development, preparation, and delivery skills needed for a variety of public speaking events plus visual aids utilization. Ethics of public speaking are examined and applied. Study of classic speeches provides historical framework.
SPEE 250
Intercultural Communications (D) (H) (S)
Students will explore the dynamics of intercultural communication; how variables such as perceptions, language usage, nonverbal style, gender, class, and values influence face-to-face communication among individuals of different cultures; and strengthen communication skills.

STUDENT DEVELOPMENT

SDEV 099
Study Skills (1-5)
Students learn essential skills needed for effective study. Course includes learning style assessment, time management, study reading, memory techniques, test-taking strategies, and research techniques.

SDEV 100
Centralia College 101 (1)
An orientation class emphasizing utilization of campus resources and offering multiple workshops on library research skills, note taking, test taking, stress management, reading skills and memory improvement.

SDEV 101
Career Planning (2)
Students identify their interests, skills and abilities and evaluate their personality styles, values and work environments as they relate to careers. Activities include interest inventory test, computer programs, job market research and informational interviewing. The format is lecture, discussion, group activities and individual projects.

SDEV 126
Career Workshops (1)
Nine workshops cover analyzing peoples’ interests, values, aptitudes and personalities as they relate to college success. Includes career information, transfer information, resume writing, interviewing, placement and workforce trends.

SDEV 150
Student Success (3)
College success strategies; goal-setting, time management, memory improvement, textbook reading strategies, note-taking, test-taking, project management. Taught by lecture, group and individual work. Includes Saturday field trip for challenge course activities.

SDEV 155
College Success (5)
Major topics include setting academic, career and personal goals; effective communication and presentation skills; study, research and test-taking strategies; critical thinking; note taking and memory improvement. Includes Saturday field trip for challenge course activity.

SDEV 166
Stress Management for Test Anxiety (2)
Identify causes of stress and physical and emotional side-effects. Learn methods for reducing stress, including progressive relaxation, meditation, biofeedback, cognitive analysis, and nutrition and exercise strategies. Management of test and math anxiety is emphasized.

WELD 126
Industrial Drafting (2) (PT)
Basic concepts in developing working drawings for use in industry. Emphasis is on the use of freehand sketching and drawing instruments to produce drawings of three-dimensional objects. Also included is basic dimensioning and pictorial drawing.

WELD 151
Welding Theory for Mechanics (1-3) (PT)
Introduction to principles of gas and arc welding and cutting processes. Includes information in welding equipment and material, various welding techniques and proper safety procedures. Corequisite: concurrent enrollment in WELD 152 or instructor permission.

WELD 152
Welding Procedures for Mechanics (1-5) (PT)
Practical application of welding and cutting techniques using oxyacetylene and electric arc welding equipment. Metal preparation, layout, and weldment testing included. Concurrent enrollment in WELD 151 required.

WELD 159
Oxyfuel and GTAW Theory (4) (PT)
Theory of oxyacetylene welding, brazing, cutting and gas tungsten arc welding theory. Topics: safety practices for equipment operation, handling and use of compressed gases, identification of filler rods, base metals, types of weld joints, and procedures. Concurrent enrollment in WELD 160 or permission of instructor required.

WELD 160
Oxyfuel and GTAW Lab (9) (PT)
Consists of oxyacetylene welding, brazing, cutting and gas tungsten arc welding lab exercises. Expand on theories taught in WELD 159. Welding demonstrations and practice are on butt, lap, tee, and corner joints in all positions. Prerequisite: WELD 159.

WELD 161
Shielded Metal-Arc Welding (SMAW) Theory (4) (PT)
Theory related to shielded metal arc welding safety, joint design, electrode selection, welding machine setup and welding operations in all positions. Correct procedures for air-arc cutting and welding will also be covered.

WELD 162
Arc Welding Lab (9) (PT)
Shielded metal-arc welding safety, machine setup and welding procedures. Shielded metal-arc welding practices include welding butt, lap, tee and corner joints in all positions. Weld testing and air carbon arc cutting included. Prerequisite: WELD 161.

WELD 164
M.I.G. Welding Theory (4) (PT)
Theory related to gas metal-arc welding (GMAW) and flux cored arc welding (FCAW); process and shop safety; machine setup, operation and troubleshooting; welding procedures and techniques; filler electrode selection and AWS weld testing.

WELD 165
Gas Shielded Arc Welding Lab (6) (PT)
Welding lab consists of GMAW and FCAW gas shielded arc welding instruction, practices and procedures on butt, lap, tee, and corner joints in all positions on steel. Also includes GMAW with aluminum.

WELD 167
Metallurgy for Welders (4) (PT)
Study of metals relevant to welding technology, extraction of metals from ores, refining metals, the manufacture of metal products, mechanical, physical and chemical properties of metals and the hardening, tempering and heat treating of metals.

WELD 180
Oxyacetylene and Gas Tungsten Arc Welding (5)(PT)
Safety, setup, brazing, cutting, and welding in all positions using oxyacetylene and gas tungsten arc welding equipment.

WELD 181
Shielded Metal Arc Welding (5)
Safety, setup, and welding in all positions using AC/DC arc welding equipment.

WELD 182
Gas Metal Arc Welding (5)
Safety, setup, and welding in all positions using gas metal arc welding equipment.

WELD 190
Cooperative Work Experience (1-12)
See description under COOP 190 for additional information.
WELD 265
Advanced Arc Welding Theory (4)
Outline practices and procedures to follow to prepare for Washington Association of Building Officials (WABO) certification test on plate and pipe. Included are layout procedures, cutting, fitting, inspection, physical testing, and troubleshooting of welding problems. Corequisite: WELD 266; Prerequisite: WELD 161.

WELD 266
Advanced Arc Welding Lab (9)
Practical exercises enable students to prepare for the Washington Association of Building Officials (WABO) tests. Includes shielded metal arc welding of test plates and pipe in all positions. Concurrent enrollment in WELD 265 or permission of instructor is required. Prerequisite WELD 160 and 161.

WELD 267
Advanced Gas Shielded Arc Welding Theory (4)
Procedures to prepare for the Washington Association of Building Officials tests in Gas Metal Arc, Flux Cored Arc, and Gas Tungsten Arc Welding. Equipment setup, base and filler metal selection, pipe layout and fitting procedures. Prerequisite: WELD 164 and 165 or permission of instructor.

WELD 268
Gas Shielded Arc Welding (9)
Exercises enable students to prepare for the Washington Association of Building Officials tests. Includes Gas Metal Arc, Flux Cored Arc and Gas Tungsten Arc Welding on test plates and pipe in all positions; Oxy fuel introduced. Concurrent enrollment in WELD 267. Prerequisite: WELD 164 or permission of instructor.

WELD 269
Adv. Fabrication and Welding Theory (4)
Fabrication and fitting tools, setup and procedures. Correct steps to follow when designing, cost estimating, and planning a large scale welding project. Blueprint interpretation and the completion of scale drawing will also be required. Prerequisite: WELD 267 or permission of instructor.

WELD 270
Advanced Fabrication and Welding Procedure Lab (6)
Fabrication and fitting tools, setup, and procedures. Butt and tee joint will be required in the flat position using various welding processes. Students will have the opportunity to work on individual projects. Prerequisite: WELD 268 or permission of instructor. Corequisite: WELD 269.

WELD 271
Blueprint Reading for Welders (4)
Fundamentals of drawing interpretation in the welding trade. Included are blueprint reading, welding symbols, fabrication techniques, identification of welds, and welding abbreviations.

WELD 281
Adv. Gas Metal Arc Welding - Aluminum (5)
Provides a thorough understanding of welding safety and gas metal arc welding of aluminum. Prerequisite: WELD 165, WELD 181 or prior welding experience with permission of instructor.

WELD 285
Arc Welding Certification (5)
Practical exercises enable students to prepare for the Washington Association of Building Officials (WABO) certification tests in gas metal arc welding (GMAW), flux cored arc welding (FCAW), and shielded metal arc welding (SMAW). Prerequisite: prior welding experience required.

WELD 287
Welding Fabrication (5)
Fabrication and fitting tools, setup and procedures. Students have the opportunity to work on individual projects and/or cooperative work experience. Prerequisite: prior welding experience required.

ZOOLEGY
ZOOL 221
Basic Anatomy and Physiology (3)
Survey of basic human structure and function including tissues, organ systems, growth and development, and genetics. Does not meet the requirements for most nursing and health sciences programs, but good preparation for ZOOL 251, 252, and 253. BIOL 105 or BIOL 130 recommended.
Applied Baccalaureate Programs

Bachelor of Applied Science (BAS) Degree Programs

What is a Bachelor of Applied Science (BAS) degree?

A traditional bachelor degree requires general education classes from many disciplines and is designed to provide you with a wide base of knowledge allowing you to concentrate your education in the third or fourth year of your education. A BAS degree gives you the chance to focus your education on your specific educational and career goals early within your education and incorporates more practical and concentrated hands-on learning in a specific industry or the career of your choice.

The Bachelor of Applied Science in Applied Management (BASAM) degree at Centralia College is specifically designed for working students throughout the region who want to prepare for management positions in a wide range of business and industry. Students meet on campus just two evenings a week, with the rest of the coursework available online. This hybrid format allows busy professionals and those seeking promotions at their present jobs to achieve the education they need for advancement while continuing to work. With two and three year tracks available, a BASAM degree at Centralia College is achievable for even the busiest professional.

The Bachelor of Applied Science in Diesel Technology (BASD) degree at Centralia College incorporates many of the benefits of an education in advanced diesel technology, then includes leadership and management coursework to prepare you for supervisory and management positions within the diesel industry. In addition to the significant, quality hands-on training you’ll receive in advanced diesel technologies such as alternative fuels, power technology, hybrid technology and others, with a BASD degree from Centralia College you’ll be prepared to enter the rapidly advancing diesel industry with the management and supervisory skills you need to set yourself apart as a leader. This program is conducted in face-to-face classes with some courses being Web-enhanced.

All BAS degrees are in candidacy status from our regional accreditation body, the Northwest Commission on Colleges and Universities (NWCCU).

Steps to Apply to a Bachelor of Applied Science Program

1) Determine if you meet the requirements to apply by reviewing the entrance requirements for the desired program. Refer to www.bachelors.centralia.edu website for a complete list of entrance requirements.
2) Complete and submit the application materials for the desired program within the date for priority registration.
3) Apply to Centralia College if you are not a current CC student, or have not attended CC in the last 12 months.

Advising

Students accepted into a bachelor program will receive quarterly advising from the Associate Dean of BAS Programs or by an appointed faculty advisor

Registration

Students accepted into a BAS Program will be provided registration information, quarterly, by the office of the Associate Dean of BAS Programs. Registration for 300 and 400 level courses is restricted to students accepted into a BAS Program.

Tuition

The Washington State Board for Community and Technical colleges sets the tuition rate for Applied Baccalaureate programs. Refer to www.bachelors.centralia.edu website for current rates.

Financial Aid & Scholarships

Please see page 14-15 of the catalog for information on applying for financial aid and scholarships.

Minimum Centralia College Content

To be eligible for the awarding of a degree, BAS students must complete a minimum of 30 credits of BAS coursework at Centralia College and that coursework must include aNY of the BAS capstone courses.

Minimum Grade

The student must achieve a grade of 2.0 or better in each of the upper division courses that comprise the BAS program. No credit is given for any grade lower than 2.0, and if the course is a prerequisite for another BAS course, that prerequisite is not met. A student who earns a grade lower than 2.0 in a BAS course may repeat that course only once. A student who earns grades lower than 2.0 in two or more courses is subject to removal from the program. The Associate Dean of BAS in consultation with the VP Instruction will determine the feasibility of a student repeating more than one BAS course due to a grade less than 2.0

BAS Course Enrollment by Non-Matriculated Students

The BAS-AM program is designed for student cohorts who are committed to the attainment of the Bachelor of Applied Science in Applied Management degree. Non-matriculated students may be enrolled in specific courses on a space available basis at the discretion of the respective faculty member and with the concurrence of the Associate Dean of BAS-AM. A maximum of three courses may be taken by any non-matriculated student. Non-matriculated students must meet all of the normal BAS-AM entrance requirements with the exception of the requirement to have an associate degree. Centralia College will consider non-matriculated students for enrollment in 300/400 level courses including:

- Community members employed in the occupation who could benefit from the specific course as an educational or skills upgrade.
- Students with deferred admission status.
- Students seeking future admission interested in trying an upper division course before applying to the program.
- Students in related lower division programs who use the 300 or 400 level courses as electives or substitutes for required courses in the associate degree.

Contact Information

Connie Smejkal
Associate Dean, Baccalaureate Programs
(360) 736-9391 ext. 432
bachelor@centralia.edu
Office located in Walton Science Center, room 120
Bachelor of Applied Science in Applied Management (BAS-AM)

The Bachelor of Applied Science in Applied Management (BAS-AM) degree is designed to provide a rigorous educational experience that fulfills the program’s mission.

Our mission is to ensure that graduates of the Centralia College Bachelor of Applied Science in Applied Management degree program will have the qualifications for entry into or promotion into management positions in a wide range of business or industries. Graduates will acquire skills to improve the success of small business or entrepreneurial ventures.

Centralia College’s Bachelor of Applied Science in Applied Management (BAS-AM) builds on an existing Associate in Arts, Associate in Applied Science, or Associate in Applied Science-Transfer adding upper division coursework to complete a four-year degree. Applicants are accepted for the fall quarter of each year. The BAS-AM operates as a cohort-based program with all students starting in fall quarter and completing the program in either two years (six quarters) or three years (nine quarters).

The BAS-AM degree program is designed to meet employment needs of the Centralia College service area and to provide the program graduates with the knowledge and skills needed to move into or advance in management and supervisory positions as well as to become entrepreneurs.

All classes are conducted using the hybrid modality with each class meeting on campus for one, two-hour period in the evening each week. Classes are on Tuesdays from 5-7pm, 7-9pm and Thursdays from 6-8pm. The balance of class work is online.

Selection into the program is merit based, with a strong academically based threshold for entrance into the admissions pool. In order to be placed into the admissions pool, applicants must complete and submit all of the following:

- An earned associate or higher degree from a regionally accredited college or university.
- Successful completion of these required courses with at least a 2.5 cumulative grade point average and at least a 2.0 grade in each course:
  - English 101 (5 credits).
  - QSR Math course for which intermediate algebra is a prerequisite (5 credits).
  - Social Science course (5 credits).
  - Natural Science course (5 credits).
  - Five additional general education requirements.
  - A personal essay/statement to include, but not limited to, previous experience, career goals, application of the degree to career advancement.
  - Evidence of a minimum of the equivalent of six months of full-time work experience.
  - Resume.
  - Official transcripts from previous colleges.
  - Two non-family references.

Additional admissions consideration will be given to applicants in the admissions pool who have successfully completed a minimum of 180 credits in BAS courses and all credits at the 300 or above level. You must have a cumulative grade point average and at least a 2.0 grade in each course:

- English 102 Composition II (5 credits) or English 235 Technical Writing (5 credits).
- Speech 110 Principles of Speech Communications (5 credits) or Speech 220 – Theory and Practice of Public Speaking (5 credits).

Degree Requirements

To qualify for a Bachelor of Applied Science - Applied Management degree you must complete a minimum of 180 credits in courses numbered 100 and above of which 90 credits must be BAS courses all of which are numbered 300 or above. You must have a cumulative grade point average (GPA) of at least a 2.0 (“C” average) for the BAS courses and all credits at the 300 or above levels must have been earned with a minimum grade of 2.0 in each course. The 180 credits must include the following general education requirements:

- Five additional credits in general education requirements:
  - Physical, biological or earth science (lab course)
  - Five additional credits in general education in one of the above distribution areas is required for admission.

BAS-AM general education coursework

- BAS 300 Foundations of Management
- BAS 310 Accounting Principles for Managers
- BAS 340 Applied Financial Management
- BAS 360 Business Principles, Planning and Strategy
- BAS 370 Practicum
- BAS 380 Marketing for Managers
- BAS 410 Project Management
- BAS 420 Human Resource Management
- BAS 435 Operations Management
- BAS 470 Management Internship
- BAS 490 Strategic Management and Policy

BAS Electives (must take 5)

- BAS 310 Accounting Principles for Managers
- BAS 401 Governmental Accounting*
- BAS 380 Marketing for Managers
- BAS 402 Audit & Fraud*
- BAS 360 Business Principles, Planning & Strategy
- BAS 301 Intermediate Accounting I*
- BAS 410 Project Management
- BAS 302 Intermediate Accounting II*
- BAS 435 Operations Management
- BAS 403 Issues in Federal Taxation*

*Prerequisite ACCT 200
MANAGEMENT (BAS-AM) PROGRAM OF STUDY

Emphasis: Applied Management

Degree: Bachelor of Applied Science

PURPOSE: The BAS-AM program is designed to provide a rigorous educational experience to graduate individuals who are well-grounded in management knowledge and ethical values, who possess the requisite skills in communications, teamwork, and business fundamentals, and who are ready to provide leadership and effective decision-making to both existing and startup organizations.

PROGRAM OUTCOMES: Students who successfully complete this program should be able to:

(A) Communication Skills
- Employ effective oral, written and analytical communication appropriate to organizational settings.
- Recognize communication issues in organizations and apply communication concepts to explain and manage such issues.
- Analyze and apply communication skills in human resource management, negotiations and small and large group discussions.

(B) Decision-making
- Differentiate among decision-making strategies and their application in management and analyze the institutional resource commitment required by different decisions.
- Apply analytical tools and quality information resources in the decision making process.
- Design evaluation strategies that will be integrated into business practices to foster continuous improvement.

(C) Diversity
- Articulate the benefits of diverse populations contributing diverse perspectives for better management decisions.
- Articulate the ethical issues with regard to community diverse populations that go beyond legal considerations.
- Analyze workplace scenarios to show how careful attention to members of a diverse population can result in significant competitive advantages.
- Access and articulate the key laws and regulations that structure personnel standards and guide management actions.
- Articulate how organizations can move from accommodation, to inclusion, to aggressive recruitment to attain a competitive advantage.

(D) Finance and Analytics
- Locate information using a variety of media and technologies and evaluate their reliability and usefulness.
- Design statistical models and apply standard statistical techniques to gather and analyze data in support of business decision-making and process refinement.
- Apply managerial accounting tools in the development and analysis of capital and operating budgets.
- Analyze financing options and avenues to best meet organizational needs.

(E) Global Perspectives
- Demonstrate an understanding of the interconnectivity between economies and markets and how overseas events often impact U.S. markets and U.S. businesses.
- Articulate the challenges and financial impacts associated with offshore supply of finished goods, raw materials and components.

(F) Leadership and Management
- Analyze leadership and management practices, roles and styles in business and management situations.
- Work collaboratively in a team setting and identify practices that support and sustain positive team environments.
- Recognize the value of diversity and community involvement in business ventures.

(G) Legal issues & Ethics:
- Articulate a personal ethical philosophy and explain its application to the workplace.
- Develop and defend a course of action to address ethical issues in the context of business decision-making.
- Analyze the relationship between business ethics, business law and organizational integrity.
- Evaluate the impact of applicable local, state, and federal laws and regulations to business and management scenarios.
- Apply human resource management laws, principles, and practices in business and organizations.
- Analyze the impact of state and federal laws on management behavior and organizational practices.

(H) Operations Management
- Integrate operations management theory into the process for delivering goods and services.
- Apply established marketing principles to guide product and service development as well as the development of marketing plans.
- Apply current technologies to increase effectiveness in the practice of management.

(I) Strategic Management
- Apply financial management theory and tools in the strategic planning process.
- Use economic theory to explain the influence of local, national, and global economic issues in strategic planning.
- Apply project management concepts to develop a project plan and manage and track a project.
- Demonstrate the value of adjusting marketing strategies based on the analysis of company/product strengths to drive products and/or improve customer service.
- Use economic theory to explain the influence of local, national, and global economic issues in strategic planning.

(J) Tax & Audit:
- Report financial performance in accordance with accounting principles required in tax, commercial, or government conceptual frameworks.
- Apply audit procedures necessary in creating reasonable assurance as it pertains to financial performance presentation.

Required course schedule – Two Year Track (subject to change)

Fall Quarter, First Year
BAS 300 Foundations of Management 5
BAS 320 Leadership & Org. Behavior 5
BAS 380 Marketing for Managers OR
BAS 402 Audit & Fraud* 5

Winter Quarter, First Year
BAS 315 Ethics 5
BAS 330 Prac. & Org. Communication 5
BAS 420 Mgmt of Human Resources 5

Spring Quarter, First Year
BAS 310 Accounting Principles for Mgrs OR
BAS 401 Governmental Accounting* 5
BAS 325 Legal Issues 5
BAS 370 Practicum in Management 5

Fall Quarter, Second Year
BAS 305 Managerial Economics 5
BAS 340 Applied Financial Mgmt 5
BAS 360 Business Principles, Planning & Strategy OR
BAS 301 Intermediate Accounting II* 5

Winter Quarter, Second Year
BAS 350 Managerial Statistics 5
BAS 410 Project Management OR
BAS 302 Intermediate Accounting III* 5
BAS 440 Environmental Issues 5

Spring Quarter, Second Year
BAS 403 Issues in Federal Taxation* 5

*Prerequisite: ACCT& 202

Required course schedule – THREE year track

Fall Quarter, First Year
BAS 300 Foundations of Mgmt 5
BAS 320 Leadership & Org. Behavior 5

Bachelor of Applied Science Degrees 69
### Winter Quarter, First Year Credits

- BAS 315 Ethics 5
- BAS 330 Prof & Org Communication 5

### Spring Quarter, First Year Credits

- BAS 310 Accounting Principles for Managers OR
- BAS 401 Governmental Accounting* 5
- BAS 370 Practicum in Management 5

### Fall Quarter, Second Year Credits

- BAS 305 Managerial Economics 5
- BAS 380 Marketing for Managers OR
- BAS 402 Audit & Fraud 5

### Winter Quarter, Second Year Credits

- BAS 420 Mgmt of Human Resources 5
- BAS 435 Strategic Mgmt & Policy 5

### Spring Quarter, Second Year Credits

- BAS 325 Legal Issues 5
- BAS 490 Strategic Management 5

### Fall Quarter, Third Year Credits

- BAS 340 Applied Financial Mgmt 5
- BAS 360 Business Principles OR
- BAS 301 Intermediate Accounting I* 5

### Winter Quarter, Third Year Credits

- BAS 350 Managerial Statistics 5
- BAS 410 Project Management OR
- BAS 302 Intermediate Accounting II* 5

### Spring Quarter, Third Year Credits

- BAS 470 Applied Mgmt Internship 5
- BAS 435 Operations Mgmt OR
- BAS 403 Issues in Federal Taxation* 5

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**BAS APPLIED MANAGEMENT COURSE DESCRIPTIONS**

**BAS 300 Foundations of Management (5)**

Foundation course that explores organizational theory and introduces the principles and concepts of effective management including planning, organizing, leading and controlling. Effective decision-making, conflict resolution, change management and motivating employees will be discussed.

**BAS 305 Managerial Economics (5)**

This course surveys economic condition and the application of tasks normally associated with a corporate economist. Topics of study include free market economies, supply and demand, regulation, inflation, price elasticity, and comparative advantage.

**BAS 310 Accounting Principles for Managers (5)**

Foundation course in accounting principles from a management perspective. Analyze the interrelationships of financial statements and cost behavior to measure and control the performance of a business entity, and make decisions based on this information.

**BAS 315 Ethics (5)**

Foundation course in ethics as applied to businesses and organizations related to management issues. Students will explore theoretical concepts in business ethics and apply them to real-world situations based on challenges managers face.

**BAS 320 Leadership & Org. Behavior (5)**

Relate theory and research to organizational problems by reviewing advanced concepts in motivation, perception, leadership, decision-making, communication and influence, group behavior, diversity, conflict and cooperation, politics, corporate culture, organizational structure, and environmental influences.

**BAS 325 Legal Issues (5)**

A core course concerning the impact of laws, regulations and legal responsibilities on management behavior with a focus on the application of this learning to real-life situations for organizations both large and small.

**BAS 330 Prof & Org Communication (5)**

Foundation course designed to develop effective written and verbal communication skills in organizational settings. Students will gain an appreciation for the crucial role communication plays in organizations and how to improve their employability.

**BAS 340 Applied Financial Management (5)**

Surveys the application of tasks normally associated with the corporate financial manager. Topics of study include planning, controls, capital markets, capital budgeting, capital structure, and working capital management. Prerequisite: BAS 310 with minimum grade of 2.0.

**BAS 350 Managerial Statistics (5)**

Statistical analysis techniques will be examined and applied in case studies involving real-world management issues. Students will examine difficulties, subjective decisions, and pitfalls when analyzing data and making inferences from numbers. Prerequisite: QSR math distribution.

**BAS 360 Bus Principles, Planning & Strategy (5)**

Core course in strategy and planning. Topics include: establishing organizational mission, formal planning, strategy formulation, and implementation. Identify strengths, weaknesses, opportunities, and threats facing organizations.

**BAS 370 Practicum in Management (5)**

This course will explore and build student comprehension of the application of management functions covered in BASM courses via direct interaction between students and local managers and entrepreneurs from private, public and non-profit sectors.

**BAS 380 Marketing for Managers (5)**

A core course designed to develop the marketing knowledge and skills necessary for the successful manager of a profit or non-profit organization. Students will develop and present a comprehensive marketing plan.

**BAS 410 Project Management Application (5)**

The theory and practice of project management as it relates to managers. Planning, organizing, securing and managing the human, financial, and physical inputs required to meet project objectives will be covered.

**BAS 420 Management of Human Resources (5)**

Core course in the responsibilities and role of human resource management in today’s workplace. Material will concentrate on both regulatory and strategic responsibilities of HR. Topics include recruitment, interviewing, compensation and current HR issues.

**BAS 435 Operations Management (5)**

Introduction to the key ideas and techniques used to plan, measure and improve an organization’s production of goods and services. Topics explored include process-system modeling, product design/quality, inputs, processes, supply-chains, inventory, and people management. Prerequisite: enrollment in BASM or by instructor permission.
BAS 440
Environmental Issues (5)
An exploration of environmental issues and their effect on business, communities and consumers. Case studies are used to examine basic concepts of ecology and environmental science as they relate to permitting and other business decisions. Prerequisite: enrollment in BASM or by permission.

BAS 470
Management Internship (5)
A capstone course applying BASM program outcomes in an internship with specific outcomes as agreed to by the student, internship provider and instructor. Classes will focus on sharing progress, issues or barriers from the internships. Prerequisite: completion of BAS foundation courses and 30 additional BAS core credits.

BAS 490
Strategic Management (5)
A capstone course which focuses on the key aspects that must be addressed for sustained organizational success, effective problem solving, and the capture of opportunities from the perspective of the general manager or the entrepreneur. Prerequisite: BAS 490.

BAS 301
Intermediate Accounting I (5)
The first installment of a two-part course designed to teach a professional level understanding of financial accounting and reporting as it applies to business entities both publically traded and privately held. Prerequisite: enrollment in BAS-AM or by permission.

BAS 302
Intermediate Accounting II (5)
The second installment of a two-part course designed to teach a professional level understanding of financial accounting and reporting as it applies to business entities both publically traded and privately held. Prerequisite: BAS 301.

BAS 401
Governmental Accounting (5)
An accounting course as it applies to government and not-for-profit entities. The topics include fund management, budget preparation, presentation of both fund and government-wide financial statements, and not-for-profit entity financial performance. Prerequisite: enrollment in BAS-AM or by permission.

BAS 402
Audit & Fraud (5)
This course is designed to teach the audit environment of professional financial accounting and reporting as it applies to fraud and internal controls. Prerequisite: enrollment in BAS-AM or by permission.

BAS 403
Federal Taxation Issues (5)
This course is designed to teach the application of tax law and internal revenue code used to complete tax returns associated with not-for-profit entities, estates, and trusts. Prerequisite: enrollment in BAS-AM or by permission.
Bachelor of Applied Science in Diesel Technology (BAS-D)

In order to be considered for admission to the Bachelor of Applied Science in Diesel Technology (BAS-D) program, you must complete and submit all of the following:

- An earned associate (two-year) degree in diesel technology or diesel mechanics from a regionally accredited college or university.
- Successful completion of these required courses with at least a 2.0 grade in each course:
  - English 101 -English Composition* (5 credits).
  - Any college level MATH requiring MATH 099 as a prerequisite (such as MATH& 107, MATH& 141, MATH& 146)

To qualify for the Bachelor of Applied Science Diesel Technology you must complete a minimum of 180 credits in courses numbered 100 and above of which 70 credits must be upper division courses which are numbered 300 or above. You must have a cumulative grade point average (GPA) of at least a 2.0 (“C” average) for the upper division courses and all credits at the 300 or above levels must have been earned with a minimum grade of 2.0 in each course. The 180 credits must include the following:

General Education Requirements

Communications
- ENGL& 101 English Composition (required for admission)
- ENGL 235 Technical Writing

Humanities
- BAS 315 Legal Issues
- Humanities elective

Social Science
- ECON 201/202 Micro OR Macroeconomics
- PSYC 100 General Psychology

Mathematical
- MATH college-level math with prerequisite of intermediate algebra (required for admission)
- BAS 350 Managerial Statistics

Natural Science
- PHYS 110 Physics: Non Science major w/lab
- DET 400 Material Science of Fuels d Lubes w/lab

Foundation Coursework from Associate Degree

Diesel Core Coursework
- DET 300 Survey of Business Management
- DET 310 Electrical III Advanced Circuits
- DET 320 Exhaust After Treatment/Regulations
- DET 330 Hydraulics II-Advanced Fluid Systems
- DET 340 Combustion Engine Fuels
- DET 350 Applied Failure Analysis
- DET 360 Power Generation and Maintenance
- DET 410 Regulatory Issues
- DET 420 Metallurgy and Fabrication
- DET 430 Shop/Fleet Management
- DET 440 Hybrid Drives Electric/Hydraulic
- DET 450 Internship

### DIESEL (BAS-D) PROGRAM OF STUDY

**Emphasis:** Diesel Technology

**Degree:** Bachelor of Applied Science

PROGRAM OUTCOMES: Students who successfully complete this program should be able to:

#### Technical

(A) Analysis and evaluation of data - Analyze and evaluate data collected from component failures, hydraulic systems, and complex electrical circuits.

(B) Professional interactions - Interact appropriately and professionally with customers and employees.

(C) Complex system operations - Explain the operation of complex systems including: computerized engine and transmission controls used for fuel efficiency and emissions control; regenerative hybrid technologies used to capture energy; multi-fuel technologies to save fuel costs.

(D) Theory application - Apply theories and skills taught in the classroom in a shop environment.

(E) Shop procedures - Create shop procedures that reflect industry standards and maintain compliance with regulations set by governing agencies.

(F) Fluids analyses - Apply the principles of tribology in the analysis of engine efficiency, life, and maintenance costs.

(G) Analysis of failure modes - Analyze test results from oil, coolant, fuel, or emissions analysis systems.

#### Managerial

(H) Policies and practices - Implement the practices, policies, and leadership to efficiently operate a fleet or repair facility.

(I) HR management and ethical principles - Apply fundamental principles of human resource management and ethics.

(J) Communications - Employ effective oral, written, and analytical communication appropriate to organizational settings including personnel situations and in large and small group discussions.

(K) Leadership styles - Distinguish between management and leadership, and differentiate among the varieties of styles and roles of management and be able to identify the most appropriate in a given situation.

(L) Use of teams - Create, manage and participate effectively in teams.

#### Fall Quarter, First Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DET 300 Survey of Business Management</td>
<td>5</td>
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<tr>
<td>DET 430 Shop/Fleet Management</td>
<td>5</td>
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<tr>
<td>GER Prerequisite ENGL 101 or college level MATH</td>
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#### Winter Quarter, First Year

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>DET 330 Hydraulics II-Adv Fluid Systems</td>
<td>5</td>
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<tr>
<td>DET 340 Combustion Engine Fuels</td>
<td>5</td>
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<tr>
<td>PHYS&amp; 110 Physics: Non-Science Major w/lab</td>
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<td>PSYC&amp; 100 General Psychology</td>
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#### Spring Quarter, First Year

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<th>Course</th>
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<tr>
<td>DET 360 Power Generation &amp; Mainten.</td>
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<td>BAS 315 Ethics*</td>
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#### Summer Quarter, Second Year

<table>
<thead>
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<th>Course</th>
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<tr>
<td>DET 450 Internship</td>
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#### Fall Quarter, Second Year

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>DET 320 Exhaust Treatment Regulations</td>
<td>5</td>
</tr>
<tr>
<td>DET 400 Material Science w/lab*</td>
<td>5</td>
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<tr>
<td>ECON&amp; 201/202 Micro OR Macroeconomics</td>
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#### Winter Quarter, Second Year

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>DET 350 Applied Failure Analysis</td>
<td>5</td>
</tr>
<tr>
<td>DET 440 Hydraulics &amp; Fabrication</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp; 235 Technical Writing*</td>
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#### Spring Quarter, Second Year

<table>
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<th>Course</th>
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<tr>
<td>DET 410 Regulatory Issues</td>
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<tr>
<td>DET 440 Hybrid Drives</td>
<td>5</td>
</tr>
<tr>
<td>BAS 350 Managerial Statistics</td>
<td>5</td>
</tr>
<tr>
<td>Humanities Elective</td>
<td>5</td>
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* Meets General Education Requirements (GER)
BAS DIESEL TECHNOLOGY
COURSE DESCRIPTIONS

DET 300
Applied Management (5)
Introduces the principles and concepts of effective management including human resource management, quality control, social responsibility, decision-making, communication, conflict resolution and customer service. Prerequisite: enrollment in BASD or by permission.

DET 310
Electrical III (5)
Course content will focus on the theory and application of advanced electrical circuits, schematic reading, and proper troubleshooting techniques. Prerequisite: enrollment in BASD or by permission.

DET 320
Emissions Control (5)
Course content will focus on the theory and application of diesel exhaust emissions reduction technology. Prerequisite: enrollment in BASD or by permission.

DET 330
Hydraulics II (5)
Studies the application of complex hydraulics systems with an emphasis on troubleshooting and system design. Prerequisite: DET 300.

DET 340
Combustion Engine Fuels (5)
Examines a variety of alternative power sources used in internal combustion engines including diesel fuel, bio-diesel, gasoline, ethanol, propane, and CNG fueled engines. Prerequisite: DET 300.

DET 350
Applied Failure Analysis (5)
Identifies initial failures, progressive damage and appropriate documentation with a focus on root cause analysis and correction actions. Prerequisite: DET 300.

DET 360
Power Generation/Maintenance (5)
Examines the theory, application, and maintenance of equipment and controls used in on-site power generation. Content will cover power generation systems that run in a variety of commercial, industrial, and personal applications. Prerequisite: DET 300.

DET 400
Science of Fuels & Lubes (5)
Studies the tribology of automotive and industrial equipment fuels, coolants, lubricants and additives. Samples of each will be taken and examined to comprehend the chemical breakdown processes, the contaminants that are involved and the consequences for engines and transmissions. Prerequisite: DET 300.

DET 410
Regulatory Issues (5)
Studies the requirements set forth by OSHA, MSHA, and the EPA relating to diesel fueled automotive and industrial equipment. Content to include current laws, preferred practices and case studies of industrial accidents. Prerequisite: DET 300.

DET 420
Metallurgy & Fabrication (5)
Focuses on various types of steel and non-ferrous metals respective strengths and other key attributes regarding how those materials are repaired and components using those metals are designed and fabricated.

DET 430
Shop/Fleet Management (5)
Addresses the relationships between the repair facility and customers as well as internal shop relationships and the development of a strong customer service culture. Topics will include work flow and methods, shop layout, work ethics, effective communications and skills needed by effective supervisors and foremen. Prerequisite: DET 300.

DET 440
Hybrid Drives (5)
Reviews current and emerging propulsion technologies including electric forklifts, diesel-electric propulsion and hydraulic accumulator drive systems. Prerequisite: DET 300.

DET 450
Internship (5)
Consists of work completed on the site of a maintenance/repair facility based upon a contractual agreement requiring specific attention to a project or problem that directly addresses BASD program outcomes. Prerequisite: DET 300.