



LOWER COLUMBIA COLLEGE

The Smart Choice!

2023-24 CATALOG

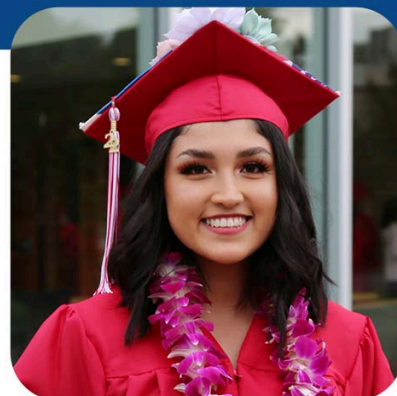
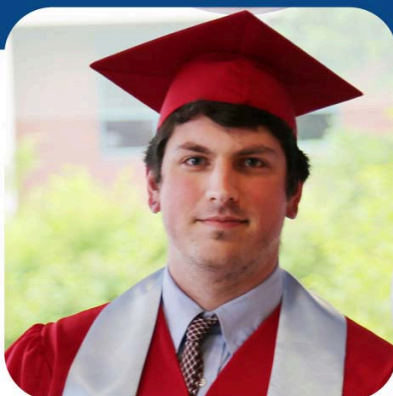
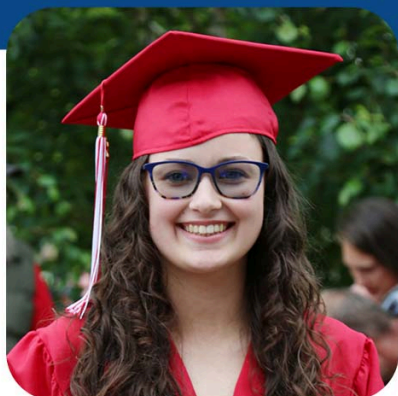


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Welcome to LCC!

New students are encouraged to visit LCC's '**Get Started Today**' (lowercolumbia.edu/enrollment) webpage for important admissions and enrollment information.

Academic Calendar

Summer Quarter 2023

Fourth of July holiday: July 4
First day of classes: July 5
Last day of classes: August 24
Final exams: last day of class
Quarter break: August 25-September 15*

Fall Quarter 2023

First day of classes: September 18
Veterans Day holiday: November 10
Thanksgiving holiday: November 23
Native Am. Heritage holiday: November 24
Last day of classes: December 1
Final exams: December 4-7
Quarter break: December 8-January 2*

Winter Quarter 2024

First day of classes: January 3
MLK Day holiday: January 15
Presidents' Day holiday: February 19
Last day of classes: March 8
Final exams: March 11-14
Quarter break: March 15-March 29*

Spring Quarter 2024

First day of classes: April 1
Memorial Day holiday: May 27
Last day of classes: June 7
Final exams: June 10-13

Commencement: June 14
Quarter break: June 17-June 28*

Summer Quarter 2024

First day of classes: July 1
Fourth of July holiday: July 4
Last day of classes: August 22
Final exams: last day of class
Quarter break: August 23-September 20*

Fall Quarter 2024

First day of classes: September 23
Veterans Day holiday: November 11
Thanksgiving holiday: November 28
Native Am. Heritage holiday: November 29
Last day of classes: December 6
Final exams: December 9-12
Quarter break: December 13-January 3*

Winter Quarter 2025

First day of classes: January 6
MLK Day holiday: January 20
Presidents' Day holiday: February 17
Last day of classes: March 14
Final exams: March 17-20
Quarter break: March 21-April 4*

Spring Quarter 2025

First day of classes: April 7
Memorial Day holiday: May 26
Last day of classes: June 13
Final exams: June 16-18
Commencement: June 20
Quarter break: June 23-June 30*

See also: [online Academic Calendar \(lowercolumbia.edu/calendar/academic\)](https://lowercolumbia.edu/calendar/academic)

Note: regular business hours for Lower Columbia College are 8:00 am - 5:00 pm, Monday through Friday. LCC is closed on Fridays during the summer (end of June through Labor Day). Many classes

and events are held outside of normal business hours.

*scheduled employee workdays may be different and holidays occurring during quarter breaks excluded

Admissions and Enrollment Information

Admission to LCC

No fees, essays or test scores are required for admission to Lower Columbia College! Just fill out an online form, and you're in.

Apply or learn more (lowercolumbia.edu/apply) or visit the One-Stop Center in the Admissions Center Building (ADC) when campus is open. See below for contact and other important information.

Phone number: **(360) 442-2322**
 Webpage: **lowercolumbia.edu/apply**
 Email: **onestop@lowercolumbia.edu**
 Located in Admissions Center (ADC)

Advising

As part of getting started, new LCC students participate in a New Student Advising (NSA) session after completing the necessary steps of applying, placement, and activating their student account. In a typical NSA session, students meet their assigned staff advisor, discuss their educational goals, and register for class.

Phone number: **(360) 442-2350**
 Webpage: **lowercolumbia.edu/advising**
 Email: **advising@lowercolumbia.edu**
 Located in Admissions Center (ADC)

High School and Younger (Special Admissions)

Current high school students may enroll in LCC courses with the approval of their high school principal and an LCC counselor or through the Running Start Program. Students younger than high school age should contact the Director of Registration to begin the special admission process. See below for contact and other important information.

Phone number: **(360) 442-2370**
 Webpage: **lowercolumbia.edu/registration**
 Email: **registration@lowercolumbia.edu**
 Located in Admissions Center (ADC)

International Student Admissions

LCC welcomes students from around the world! New applications are accepted year-round for fall, winter, spring, or summer quarter. We do require that all new students submit an International Student Application Form and associated documentation. New and prospective international students can find more information about **admissions (lowercolumbia.edu/enrollment)** online.

International students must complete at least 12 credits per term and maintain satisfactory academic progress as defined by the LCC catalog in order to maintain F-1 visa status. International students must pay all tuition and fees by the deadlines set forth by the Registration Office. International students are also responsible to pay for mandatory 12-month health insurance and repatriation coverage while enrolled at LCC. See below for contact and other important information.

Phone number: **(360) 442-2310**
 Webpage: **lowercolumbia.edu/international**
 Email: **international@lowercolumbia.edu**
 Located in Library 110 (LIB)

One-Stop Center

The One-Stop Center provides enrollment information and general help to get started at LCC. Returning students may request program advisor information at the One-Stop Center. See below for contact and other important information.

Phone number: **(360) 442-2322**
 Webpage: **lowercolumbia.edu/one-stop**
 Email: **onestop@lowercolumbia.edu**
 Located in Admissions Center (ADC)

Placement

Students who plan to earn a degree or certificate or transfer to a baccalaureate institution must go through a placement process before enrolling. LCC uses multiple measures to determine course placement. Results and course recommendations are typically provided immediately upon completion of the placement evaluation. Advisors use these placement results and course recommendations to help students plan their class schedules.

Placement recommendations must be followed, although a student may retest once if a placement assessment is used for course placement. Additional measures used for placement include but are not necessarily limited to completed college courses, high school transcript GPA, Smarter Balanced Assessment, High School Transfer Agreements (HSTA), GED, SAT, College and Career Preparation course completion, or

Directed Self Placement. See below for contact and other important information.

Phone number: **(360) 442-2360**
 Webpage: **lowercolumbia.edu/placement**
 Email: **testing@lowercolumbia.edu**
 Located in Main (MAN)

Purchasing Textbooks & Supplies

Lower Columbia College Bookstore, located in the Student Center, sells both textbooks and supplies required for LCC classes. Students can order books online at lowercolumbia.edu/bookstore. See below for contact and other important information.

Phone number: **(360) 442-2240**
 Webpage: **lowercolumbia.edu/bookstore**
 Located in Student Center (STC)

Registration

New students register for classes when meeting with their new student advisor. In future quarters, students can register online after meeting with their program advisor.

Registration dates and deadlines (lowercolumbia.edu/enrollment) are available online. Registration at LCC is prioritized so that degree- and certificate-seeking students nearest to graduation, who have met with their faculty advisors, register before newer students. Students should discuss alternative classes with their advisors since some classes may fill before their registration time.

To access records and to conduct other business online, students must access the **ctcLink system (wa130.ctclink.us)** using their ctcLink ID number and a password. Students receive instructions

on setting up a ctcLink account in their welcome letter. This information is provided by the Registration Office after processing the student's application for admission.

Currently enrolled students will meet with their program advisor prior to registering each quarter. After meeting with each student, advisors remove the quarterly advising hold allowing the student to register online through ctcLink.

Students placed in the incorrect English, Human Development, Mathematics and Physical Education classes should contact the Registration Office as soon as possible for assistance correcting their enrollment.

See below for contact and other important information.

Phone number: (360) 442-2370
 Webpage: lowercolumbia.edu/registration
 Email: registration@lowercolumbia.edu
 Located in Admissions Center (ADC)

Schedule Changes

Students can change their scheduled classes after registering as follows.

Adding or swapping a class:

- Online through the third day of each quarter.
- After the third day, and before the published deadline, with instructor permission by contacting the Registration Office.

Dropping a class:

- Online through the published deadline, according to the withdrawal policy below. NOTE: dropping a class can

change financial aid eligibility and/or result in a W grade.

Students receiving financial aid funding must consult the Financial Aid Office prior to making any schedule changes. See below for contact and other important information.

Phone number: **(360) 442-2370**
 Webpage: lowercolumbia.edu/registration
 Email: registration@lowercolumbia.edu
 Located in Admissions Center (ADC)

Withdrawing from Classes

Students may withdraw from some or all of their classes through Friday of the eighth week of instruction in fall, winter, and spring quarters. For courses shorter than 10 weeks, including summer quarter courses, the last day to withdraw is 80% of the length of the course. Students can officially withdraw by dropping a class in ctcLink or notifying the Registration Office in writing by 11:59 pm on the last day to withdraw. If a student stops attending a class without officially withdrawing, they will remain on the roster and receive a grade accordingly.

Prior to withdrawing, students are encouraged to consult with the class instructor, advisor, and Financial Aid Office to understand the impact of withdrawing on financial aid eligibility and progress toward graduation.

Requests to withdraw after the last day to withdraw are reviewed for approval by the Academic Standards Committee. Late withdrawal requests must include verifiable documentation showing the student was unable to withdraw prior to the deadline due to emergency circumstances outside the student's control.

The last day to withdraw without a W grade is the tenth instructional day of the quarter for fall, winter, and spring quarters. For courses shorter than 10 weeks, including summer quarter courses, the last day to withdraw without a W is 20% of the length of the course.

Students suspected of academic dishonesty may not withdraw from a course to avoid consequences resulting from academic dishonesty until there is a resolution through the student conduct process.

Students who don't attend any classes during the first five instructional days of the quarter, or contact the instructor, may be withdrawn from the class(es).

Students are responsible for understanding the impact of withdrawing on their financial aid. Students are encouraged to review the **Financial Aid Handbook (lowercolumbia.edu/financial-aid/forms)** or visit the Financial Aid Office for information.

See also: **Adding and Withdrawing from Classes in the LCC Student Handbook (lowercolumbia.edu/publications/student-handbook/adding-withdrawing-from-classes)**.

See below for contact and other important information.

Phone number: **(360) 442-2370**

Webpage: **lowercolumbia.edu/registration**

Email: **registration@lowercolumbia.edu**

Located in Admissions Center (ADC)

Financial Aid

How can financial aid be used?

Financial aid can be used to pay tuition and fees as well as other expenses such as books, supplies, housing, transportation, and other living expenses.

Who is eligible for financial aid?

There are state and federal sources of financial aid. If you are a U.S. Citizen or Permanent Resident of the U.S., you can apply for federal and state financial aid using the FAFSA. If you are ineligible for federal financial aid due to immigration status, you can apply for state financial aid using the WASFA. More information is available about the financial aid application process at lowercolumbia.edu/financial-aid.

What types financial aid are available?

Grants

Grants are need-based aid and generally do not have to be repaid. They include: Federal Pell Grant, Federal Supplemental Education Opportunity Grant (FSEOG), Washington College Grant, College Bound Scholarship, Passport to College, Early Achievers Grant, and Opportunity Grant. Other grant resources include Worker Retraining, Basic Food Employment Training (BFET), and emergency assistance.

Work-Study Employment

Students can request a work-study job as part of their Financial Aid package. LCC staff will help students determine their eligibility. Students may work on or off campus for up to 19 hours a week while attending school. LCC participates in both the federal and state work-study programs. A limited number of student help jobs are also available.

Loans

LCC offers Federal Direct Loans and parent (PLUS) loans up to the cost of attendance. The maximum loan amount awarded depends on student need, dependent status, and year in college. Students must complete loan counseling and a master promissory note. PLUS applicants use a separate loan application.

Scholarships

LCC's online scholarship application system allows students to apply for multiple scholarships with a single application. Award amounts vary. Scholarship applications are typically available during spring quarter for the upcoming academic year.

Veterans

Resident veterans who served in a combat zone or who provided direct support to American soldiers in a combat zone may qualify for special tuition rates and other financial aid. Assistance with completing the process to apply for college funds, veteran's health benefits and other help is provided by the Veterans' Affairs Coordinator's office. To get started, veterans need Copy #4 of their DD Form 214, Report of Separation from Active Service.

How to learn more about the different types of aid available

Learn more about different sources of funding at lowercolumbia.edu/types-of-aid.

How to apply for financial aid

Students apply for financial aid online through the **financial aid page on the LCC website (lowercolumbia.edu/financial-aid)** . Computers are available for student use in the Admissions Center. Priority deadlines are set for each quarter to allow 3-6 weeks for an application to be processed. Priority dates are published at lowercolumbia.edu/financial-aid.

How to know if financial aid is awarded

Students will be notified of any financial aid awards through ctcLink. In ctcLink, students can view and update their financial aid awards by going to the 'Student Center' and selecting "View Financial Aid."

If a student applies for financial aid and registers for classes, it is assumed they are accepting the financial aid award. Students who decide not to attend LCC must notify Financial Aid to cancel their award by Friday of the first week of classes.

The student should also review information about class changes or academic progress that might affect the award.

Maintaining financial aid eligibility

To continue receiving financial aid, students must meet the Satisfactory Academic Progress standards established by the applicable state and federal financial aid programs. Students who fail to meet these standards may be placed on financial aid warning or lose their financial aid. Students can review Satisfactory Academic Progress standards online at lowercolumbia.edu/financial/aid.

Reinstating financial aid eligibility

If financial aid eligibility was suspended at LCC, a student may request that their financial aid eligibility be reinstated once they have met the standards for reinstatement. Information about the reinstatement process is available in the Financial Aid Office.

See below for contact and other Important Information.

Phone numbers:

Financial Aid: **(360) 442-2390**

Student loan coordinator: **(360) 442-2393**

Veterans Office: **(360) 442-2395**

One-Stop Center: **(360) 442-2233**

Webpages:

Financial Aid: lowercolumbia.edu/financial-aid

Jobs: lowercolumbia.edu/student-employment

Scholarships: lowercolumbia.edu/scholarships

Forms: lowercolumbia.edu/financial-aid/forms

Types of aid: lowercolumbia.edu/types-of-aid

FAFSA application: studentaid.gov/h/apply-for-aid/fafsa (studentaid.gov/h/apply-for-aid/fafsa)

ctcLink login: myaccount.ctclink.us/ (myaccount.ctclink.us/)

ctcLink information: lowercolumbia.edu/ctcLink

Located in Admissions Center (ADC)

Tuition, Fees and Residency Classifications

Tuition

Tuition at Lower Columbia College is set by the Washington State Legislature.

Current **tuition rates** (lowercolumbia.edu/tuition) are posted on the LCC website.

Miscellaneous Fees

In addition to tuition, LCC students may be assessed fees based on program and class selections.

Current miscellaneous fees are posted on the LCC website.

Residency Classifications

The Washington State Legislature sets requirements and procedures for determining a student's residency classification.

The Registration Office will make an initial residency determination from the information provided on the student's application for admission and notify those who have been classified as a nonresident.

There are a number of different options for establishing Washington residency depending on a student's circumstances. Visit the LCC website for information on **how to request a change of residency (lowercolumbia.edu/registration/residency)**, or contact the Director of Registration.

Current **residency classifications and rates (lowercolumbia.edu/tuition)** are posted on the LCC website.

See below for contact and other important information.

Phone number - Cashiering: **(360) 442-2210**

Phone number - Registration: **(360) 442-2370**

Webpage - current rates: **lowercolumbia.edu/tuition**

Webpage - Veterans: **lowercolumbia.edu/veterans**

Cashiering located in Admissions (ADC)

Registration located in Admissions (ADC)

Veterans Services located in Student Center (STC)

Payment Options

Tuition due dates are posted on the **academic calendar (lowercolumbia.edu/calendar/academic)** on the LCC website. Students who have not made arrangements to pay by the deadline will be dropped from their classes.

Payment options include cash, check, debit/credit card, Visa or MasterCard, or enrollment in a tuition payment plan.

Students can pay tuition either at the Cashier's Window in the Admissions Center, or through the **ctcLink mobile site (wa130.ctclink.us/)**. **Instructions for making payments in ctcLink ([**aining \)** are available on the LCC website.](http://lowercolumbia.edu/ctcLink/student-t</p>
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LCC offers a tuition payment plan which allows students to pay tuition in smaller monthly installments. Payments are automatically charged to a credit/debit card or withdrawn from a bank account. Enrollment deadlines for the **tuition payment plan (lowercolumbia.edu/payment-plan)** are posted on the LCC website.

See below for contact and other important information.

Phone number: **(360) 442-2210**

Webpage - payment plan:

lowercolumbia.edu/payment-plan

ctcLink login: **lowercolumbia.edu/ctclink**

Cashier's Window Located in Admissions Center (ADC)

Refunds

A refund of tuition and eligible fees will be made to students or to financial aid programs for students who officially withdraw from classes according to the schedule below.

- Withdrawal prior to the sixth day of instruction of the quarter: 100%.
- Withdrawal on or after the sixth day of instruction of the quarter and within the first 20 calendar days of the quarter: 50%.
- Withdrawal after the 20th calendar day of the quarter: 0%.
- Refunds are prorated for classes with non-standard start or end dates. Short classes will be refunded based on the percentage of the class completed. Contact the Registration Office for exact refund deadlines for classes that

do not follow the standard academic calendar.

Check the **academic calendar (lowercolumbia.edu/calendar/academic)** on the LCC website for exact dates. When the college cancels a class, a full refund is made. Fees other than tuition and incidental fees are not refunded. Special refund policies apply to Continuing Education classes.

See below for contact and other important information:

Phone number: **(360) 442-2210**

Webpage: **lowercolumbia.edu/calendar**

Financial Aid Located in Admissions Center (ADC)

Cashiering Located in Admissions Center (ADC)

American Opportunity Tax Credit

IRS Tax Notice

The American Opportunity Tax Credit (AOTC) is a credit for qualified education expenses paid for an eligible student for the first four years of higher education. You can get a maximum annual credit of \$2,500 per eligible student.

Depending on individual circumstances, the American Opportunity Tax Credit may not be the most advantageous tax option for all families with higher education expenses.

More information about **tax credits (lowercolumbia.edu/tax-credit)** is available on the LCC website.

Information about Lower Columbia College (LCC)

Lower Columbia College is a public institution located in Longview, Washington. Established in 1934, Lower Columbia became an official community college in 1961. In 1967, LCC joined the state-supported community college system. Today, the College includes 26 buildings on nearly 40 acres and enrolls over 6,000 students each year.

About this Catalog

Every effort is made to ensure that the information in this catalog is accurate at the time of publication (catalog certified as true and correct for content and policy). Acknowledging that policies, personnel, curricula, funding and legal authority can change, however, Lower Columbia College reserves the right to amend, revise or modify any provision printed in this catalog. Because curricula are regularly reviewed and revised, the College also reserves the right to add or withdraw courses without prior notification.

Students can rely upon the graduation requirements printed in the catalog that is active when they begin their degree programs, or they may take advantage of later changes to their degree programs. LCC will work with students to provide opportunities for degree completion and will honor discontinued degree requirements for five years after the student begins coursework for the degree.

The LCC Catalog is published in conjunction with the LCC Student Handbook, which contains such things as facility descriptions and school policies and procedures including student academic rights and responsibilities and the Code of Student Conduct. The Student Handbook is located at lowercolumbia.edu/publications/student-handbook.

Accreditation Statement

Lower Columbia College is accredited by the Northwest Commission on Colleges and Universities (NWCCU).

NWCCU is one of seven institutional accrediting agencies that operate within a scope of authority approved by the U.S. Department of Education (USDE). Institutional accreditors have traditionally had oversight over higher educational institutions within a selected subset of the 50 states and U.S. territories, along with institutions outside of the U.S., which have voluntarily sought membership for accreditation. However, under the new 2020 USDE regulations, the former regional accreditors are now allowed to operate nationally. Institutional accreditation serves to assure the educational community, parents, students, employers, policymakers, and the public that an accredited institution has met high standards of quality and effectiveness.

For the purposes of determining eligibility for United States government assistance under certain legislation, the Secretary of the U.S. Department of Education recognizes institutional

accrediting agencies as reliable authorities on the quality of education offered by educational institutions.

Institutional accreditation applies to an institution as a whole, not individual programs or units within the institution. Institutional accreditation agencies perform important functions, including fostering quality education and continuous improvement, and encouraging institutional efforts toward maximum educational effectiveness. The accrediting process requires institutions to examine their own missions, operations, and achievements. It then provides expert analysis by peer evaluators, which may include commendations for accomplishments as well as recommendations for improvement.

Inquiries regarding an institution's accreditation status by the NWCCU should be directed to the administrative staff of the institution. Individuals may also contact:

Northwest Commission on Colleges and Universities (NWCCU)
8060 165th Avenue N.E., Suite 100,
Redmond, WA, 98052
(425) 558-4224
nwccu.org (www.nwccu.org/)

Accreditation by the NWCCU refers to the institution as a whole. Therefore, statements like "fully accredited" or "the program is accredited by the Northwest Commission on Colleges and Universities" or "this degree is accredited by the Northwest Commission on Colleges and Universities" are incorrect and should not be used.

In addition to institutional accreditation, specific programs at LCC have obtained specialized accreditation, including:

- The Lower Columbia College Nursing Program is approved by the Washington State Nursing Care Quality Assurance Commission and accredited by the Accreditation Commission for Education in Nursing (ACEN).
- The Lower Columbia College Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Education Programs on recommendation of the Curriculum Review Board of the American Association of Medical Assistants Endowment.

Apprenticeship Program

Apprenticeship combines employment, education and training in one workforce program. Employers and their employees develop, register and operate apprenticeship programs based on the needs of industry. Registered apprenticeship is governed by the Washington State Apprenticeship and Training Council (WSATC) under the authority of RCW 49.04 and WAC 296-05.

Apprenticeship Training Committees (ATC) run apprenticeship programs for various trades as approved by the WSATC. Acceptance into an apprenticeship program is determined by the program's selection procedures. Two primary components include provisions for an employer/employee relationship with paid on-the-job training for a specific occupation and at least 144 clock hours of related supplemental (classroom) instruction per year. On-the-job training experiences are conducted under the direct supervision of a qualified journeyman who is affiliated with the apprentice's trade or program. Classroom

instruction provides an opportunity to acquire knowledge and skills that supplement on-the-job training and work experience.

Lower Columbia College is a partner in the Registered Apprentice system and provides or supports the related supplemental classroom instruction when requested by an apprenticeship program. Also, students earning direct credit at LCC through the Career Pathways/CTE Dual Credit program may be eligible to apply those credits toward the supplemental instruction component of a registered apprenticeship program.

LCC's apprenticeship advisor can refer you to the ATCs for the programs the College supports and provide you with information on applying Career Pathways/CTE dual credit toward an apprenticeship. Once accepted into an apprenticeship program, you may register for approved courses at LCC. Tuition for apprentices taking their required apprenticeship classes at LCC is reduced by 50% under WAC 131.28. Registered apprenticeship is part of the state Workforce Development System. Apprentices may be eligible for training assistance vouchers. Many apprenticeship programs are approved for veteran's education benefits.

See below for contact and other important information.

Phone number for LCC Apprenticeship Contact: **(360) 442-2601**

Webpage for Regional Apprenticeship Information: <https://lni.wa.gov/licensing-permits/apprenticeship/apprenticeship-preparation>

Assurances

Selected programs of study at Lower Columbia College are approved by the Workforce Training and Education Coordinating Board's State Approving Agency (WTECB/SAA) for enrollment of those eligible to receive benefits under Title 38 and Title 10, USC.

Lower Columbia College does not and will not provide any commission, bonus, or other incentive payment based directly or indirectly on success in securing enrollment or financial aid to any persons or entities engaged in any student recruiting or admissions activities or in making decisions regarding the award of student financial assistance.

Lower Columbia College adheres to the Family Educational Rights and Privacy Act (FERPA) with regard to the privacy of student records and the appropriate release of student information, including directory and student records. More information about **FERPA** (www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html) is available online and in the Academic Policies and Records section of this catalog.

In accordance with Title 38 US Code 3679 subsection (e), Lower Columbia College adopts the following additional provisions for any students using U.S. Department of Veterans Affairs (VA) Post 9/11 G.I. Bill® (Ch. 33) or Vocational Rehabilitation and Employment (Ch. 31) benefits, while payment to the institution is pending from the VA. This school will not:

- Prevent the student's enrollment;
- Assess a late penalty fee;
- Require the student to secure alternative or additional funding;

- Deny their access to any resources (access to classes, libraries, or other institutional facilities) available to other students who have satisfied their tuition and fee bills to the institution.

However, to qualify for this provision, such students may be required to:

- Produce the Certificate of Eligibility by the first day of class;
- Provide a written request to be certified;
- Provide additional information needed to properly certify the enrollment as described in other institutional policies.

Board of Trustees

Alice Dietz, Chair, appointed October 2018

Public Relations Manager at Cowlitz PUD; former Director of Programs at Cowlitz Economic Development Council.

Michael Karnofski, Vice Chair, appointed June 2020

Kelso City Council Member; former manager at Weyerhaeuser.

Liz Cattin, appointed March 2021
Director of Community Health for PeaceHealth Columbia Network.

Bogyeong Kim, appointed December 2013

Former English teacher in South Korea.

Marc Silva, appointed March 2022
AVP, Branch Manager, Columbia Bank (Longview branch).

See also: **LCC Board of Trustees webpage** (lowercolumbia.edu/trustees).

Class Size and Student-Faculty Ratio

Class sizes vary depending on the discipline and available facilities and equipment. Certain disciplines, such as Nursing, must adhere to external standards that limit class size. Other disciplines, such as Machine Trades, Welding, and Automotive Technology, set class size according to the available equipment. The majority of LCC classes range from 15-35 students.

In 2021-22, LCC's student-faculty ratio was 13.67 for all students, and 11.18 for state-supported students.*

The student-faculty ratio indicates how many full-time equivalent students were on campus for every full-time equivalent faculty member. Full-time equivalency is determined by credits taken for students, and credits taught for faculty.

*Source: SBCTC website (Data Tables)

Clery Annual Security and Fire Safety Report Statement

Jeanne Clery Statement: Notice of Availability of Annual Security and Fire Safety Report

In compliance with the Jeanne Clery Disclosure of Campus Security Policy and

Crime Statistics Act of 1998, and as a part of the College's commitment to safety and security on campus, Lower Columbia College reports the mandated information about current campus policies concerning safety and security issues, the required statistics, and other related information for the past three (3) calendar years. Lower Columbia College's **Annual Security and Fire Safety Report (lowercolumbia.edu/safety/crime-reports)** is available online.

To obtain a paper copy of the report, please visit the Lower Columbia College Safety & Security Department located on the first floor of the Student Center at 1600 Maple Street, Longview, WA 98632.

Faculty and Administration at LCC

Administration President

Christopher C. Bailey (2011)
B.A., Western Washington University;
J.D., University of Washington School of Law

Vice Presidents

Kristen Finnel (2019), Vice President of Instruction
A.A.S., Tidewater Community College;
B.S., Norfolk State University; M.Ed., Concordia University; Ed.D., Edgewood College

Wendy Hall (2003), Vice President of Effectiveness and College Relations
B.A., Whitman College; M.P.A., University of Washington

Sue Orchard (2016), Vice President of Student Services
B.A. and M.A., Eastern Washington University; Psy.D., Pacific University School of Professional Psychology

Kendra Sprague (2011), Vice President of Foundation, Human Resources and Legal Affairs
B.A., Washington State University; J.D., Willamette University College of Law

Nolan Wheeler (1994), Vice President of Administration
A.A., Lower Columbia College; B.A., Western Washington University; M.B.A., University of Phoenix

Deans

Merry Bond (2011), Dean of Instructional Programs/Nursing Program Director
A.A., Lower Columbia College; B.S., Washington State University; M.S., Capella University

Stefanie Gilberti (2008), Dean of Instructional Programs
B.S., North Dakota State University; M.A., Colorado State University

Tamra Gilchrist (2007), Dean of Instructional Programs
A.A., Lower Columbia College; B.S., M.S., Warner Pacific College

Jamie Martin, Ph.D. (2023), Dean of Instructional Programs
A.A., Umpqua Community College; B.A., University of Texas at Austin; M.A., Texas State University; Ph.D., Grand Canyon University

Theresa Stalick (2008), Dean of Instruction/Director of College & Career Prep
B.A., University of Oregon; M.A., University of Idaho

Department Directors

Magnus Altmayer (2019), Director of Registration/Registrar
B.A., Whitman College

Richard Arquette (2021), Director of Student Programs
B.A., Eastern Washington University;
M.S., Oregon State University

Jason Arrowsmith (2016), Director of Student Conduct and Security Services
A.A., Clark College; B.A., Washington State University; M.A., Central Washington University

Marie Boisvert (2016), Director of International Student Programs
B.A., State University of New York;
M.A., California State University; Ed.D., Washington State University

Sheila Burgin (2008), Director of Development and Major Gifts
A.A., Lower Columbia College; B.S., Western Governors University

Nicole Faber (2019), Director of Outreach Services
B.A., Washington State University

Byron Ford (2018), Director of Advising and Testing
B.A. and M.E., Western Washington University

Desiree Gamble (2007), Director of Finance
A.A., Lower Columbia College; B.A., Washington State University

Sarah Griffith (2010), Director of eLearning and Education
B.A., Abilene Christian University

Richard Hamilton (2001), Director of Campus Services, Facilities and Capital Projects

A.S., City University; A.A., Lower Columbia College; B.A., Washington State University

Michaela Jackson (2001), Director of BAS Programs
A.A., Lower Columbia College; B.A., Concordia University

Kari Johnson (2018), Director of Early Learning Center
A.A.S., Lower Columbia College

Lindsay Keevy (2016), Library Director
B.A., California State University; M.L.S., San Jose State University

Mindy Leasure (2007), Director of Head Start/ECEAP/EHS
B.A., University of Washington; MSMOL., Warner Pacific College

Alyssa Milano-Hightower (2020), Director of Enterprise Services
B.S. CSU Stanislaus, M.B.A. CSU Stanislaus

Mary Kate Morgan (2013), Director of Disability and Access Services
B.A., Gonzaga University

Samantha Orth (2014), Director of Human Resources
A.A., Lower Columbia College; B.A., Washington State University

Brandon Ray (2011), Director of Information Systems
B.A., University of Portland; M.S., Warner Pacific College

Jodi Reid (2010), Director of TRiO Programs
A.A., ITT Technical Institute; B.A., Washington State University; M.F.A., Northwest Institute of Literary Arts

Natalie Richie (2017), Director of Instruction Division Operations
B.S., Oregon State University; M.S., Warner Pacific University

Lupe Rodriguez (2012), Running Start Director
A.A., Lower Columbia College; B.A., Central Washington University

Kirc Roland (2001), Athletic Director
B.A., San Diego State University

Janel Skreen (2013), Director of Environmental Health and Safety
B.S., M.S., Washington State University

April Tovar Villa (2022), Director of Financial Aid
A.A., Clark College; B.A., Washington State University

Dani Trimble (2010), Workforce Programs Director
B.A., The Evergreen State College; M.Ed., Central Washington University

Full Time Faculty (Tenured and Tenure-Track)

Natasha Allen (2021), Welding
A.A., Lower Columbia College

Timothy Allwine (2006), Business Administration and Technology
B.S., Miami University; M.B.A., University of Montana

Jolynn Amrine, Ph.D., (2023), Language and Literature
B.A., John Brown University; M.A., Queen's University Belfast/University of Alabama; Ph.D., University of Alabama

Larissa Arnold, Ph.D., (2022), Psychology
A.A., Seward County Community College; B.A.S., M.S., Ph.D., Iowa State University

Earnest "Trey" Batey, Ph.D. (2015), Anthropology
B.A., Louisiana State; M.A., Wichita State University; Ph.D., University of Arkansas

Hiedi Bauer (2006), English

A.A., Lower Columbia College; B.A., The Evergreen State College; M.A., Portland State University

Kimberly Beebe (2022), Communications Studies
B.A., M.A., Oregon State University

Jessica Bilek (2023), Basic Education
B.A., Western Washington University; M.A., University of Washington

William "Brad" Benjamin (2008), Mathematics
B.S., Miami University; M.S., Portland State University

Elena Boleyn-Ross (2008), Physical Education
B.A., Pacific Lutheran University; M.A., University of Alabama

Amy Boultinghouse (2018), Nursing
A.A.S., Lower Columbia College; B.S., Western Governors University; M.S., Capella University

Kali Brandt (2018), Nursing
A.A.S., Lower Columbia College; B.S.N., Grand Canyon University; M.S.N., Western Governors University

Alex Brehm (2016), Communication Studies
B.A., Saint John's University; M.A., Portland State University

William Henry Brewster, Ph.D. (2018), Mathematics
B.A., Colby College; M.Ed., University of Washington; Ph.D., Columbia University

Ashley Cahill (2021), Teacher Education
A.A., Highline Community College; B.A. and M.A., The Evergreen State College

Gina Challed (2010), Choral Director
B.A., Western New Mexico University; M.M., New Mexico State University

Becky Connolly (1999), Language and Literature
B.A., Eastern Washington University; M.S., Capella University

Justin Core (2022), BAS-OLTM
A.A., Pierce College; B.A., Eastern Washington University; M.A., George Fox University

Leszek Cromwell (2013), Mental Health Counselor
B.A., Central Washington University; M.S.W., Eastern Washington University

Dana Cummings (2008), Business
B.A., Washington State University; M.S., Strayer University

Robert Davis, Ph.D. (2012), Instrumental Music
B.M., M.M., Brigham Young University; D.M.A., University of Southern California

Donald D. Derkacht (2002), Computer Science
B.S. and M.S.E.E., Washington State University

James Dillinger (2008), Diesel/Heavy Equipment
A.A.S., Lower Columbia College

Dawn M. Draus (2003), Mathematics
B.S. and M.S., Northern Arizona University; M.S. Utah State University

Kailie Drumm (2022), Nursing
A.A.S., Lower Columbia College; B.S., Washington State University

Alex Emerson (1994), Language & Literature
B.A., B.A., M.A., Central Washington University

James Franz (2008), Economics
B.A., State University of New York Plattsburgh; M.A., California State University

Mark Gaither (2013), Business Technology
B.S.; Portland State University, M.A., University of Phoenix

Adrienne Godschalx (2023), Microbiology
B.S., Western Oregon University; M.S. and Ph.D., Portland State University

Becky Grabenhorst (2018), Nursing
A.A.S., Lower Columbia College; B.S., Grand Canyon University

Jeanne L. Hamer (1999), Nursing
A.A.S., Lower Columbia College; B.S.N, Washington State University; M.S.N., Washington State University

Mary Hebert (2014), Mathematics
B.A., Northwestern State University of Louisiana; M.S., Texas Tech University

Armando L. Herbelin, Ph.D. (2002), Chemistry
B.S., Oregon State University; Ph.D., University of Washington

Klint D. Hull (2004), Language and Literature
B.A. and M.A., Eastern Washington University

Lindsay Keevy (2016), Librarian
B.A., California State University; M.L.S., San Jose State University

Corry Kile (2011), Automotive Technology
A.T.D., Phoenix Institute of Technology

Ian King (2019), BAS/OER Librarian
B.S., Embry-Riddle Aeronautical University; B.S., Stevens Henager College; MLIS, Wayne State University

Jessica Kooiman (2006), Nutrition and Health
B.A., Westmont College; M.A., Liberty University

Ashleigh Kruckenberg (2023), Education
B.A. and M.A., Western Governors University

Louis LaPierre, Ph.D. (2004), Biology and Environmental Science
B.A. and Ph.D., University of California

Mary M. Leach (2005), Humanities
B.A., Washington State University; M.A., California State University

Abbie Leavens (2014), Language and Literature
A.A., North Iowa Area Community College; B.A., Waldorf University; M.F.A., University of California - Irvine

Amber Lemiere (2013), Language and Literature
A.A.; Lower Columbia College, B.A.; Washington State University, M.A., Northern Arizona University

Nadine Lemmons (2006), Business Technology
A.A.S., Lower Columbia College; B.A., George Fox University; M.B.A., Marylhurst University.

Peteris Livins, Ph.D. (2008), Physics
B.S., State University of New York Stonybrook; Ph.D., University of Virginia

Amber MacLaren (2011) Nursing
A.D.N., Lower Columbia College; B.S.N. and M.S.N., Western Governors University

Jason Malozzi (2015), Mathematics
A.A., Harrisburg Area Community College; B.A., Penn State; M.S., Lehigh University

Joanna Mosser, Ph.D. (2018), Political Science
M.A., M.Phil., Ph.D., Yale University

Lucas Myers (2011), Biological Sciences

B.A., Linfield College; M.P.H. and A.T. Still University; M.S., New York Chiropractic College

Tamara R. Norton (1999), Nursing
A.A., Lower Columbia College; B.S.N. and M.S.N., Washington State University

David Pittsley (2016), Welding
A.A.S., Lower Columbia College

Michael "Shane" Prine (2022), Visual Arts
B.A., Valdosta State University; M.A., Washington State University

Anita Quirk, J.D. (1993), Criminal Justice
A.A., Spokane Falls Community College; B.A., Walla Walla College; J.D. Lewis and Clark

Connie Ramos (2005), Nursing
A.A.S., Portland Community College; B.S.N. and M.S., Regis University

Elizabeth "Betsy" Richard (2015), Drama
B.A., City College; M.A., Eastern Michigan University

Benjamino "Stefan" Rijnhart (2015), Computer Science
A.A., Lower Columbia College

Mavourneen Rister (2010), Language and Literature, College Success
A.A., Lower Columbia College; B.A., Washington State University; M.A., National University (San Diego)

Gary Roeske (2013), Automotive
A.A., Mount Hood Community College

David L. Rosi (2003), Computer Science
A.A., Lower Columbia College; B.A., Central Washington State University; B.A., Western Washington State University; M.S., Nova Southeastern University

Morgan Salisbury, Ph.D. (2016), Earth Science
B.S., University of Idaho; M.S., Central Washington University; Ph.D., Oregon State University

Shari Samuels, Ph.D. (2015), Mathematics
B.S.E., Chadron State College; M.A.E., Chadron State College; Ph.D., Montana State University

Courtney Shah, Ph.D. (2007), History
B.A., Duke University; M.A., Brandeis University; Ph.D., University of Houston

Nathan Shepherd (2015), Machine Trades
A.A., Lower Columbia College

Terri Skeie (1996), Mathematics
A.A., Lower Columbia College; B.A., The Evergreen State College; M.S., Utah State University

Victoria Soladey (2009), Medical Assisting
A.A., Lower Columbia College; Medical Assistant Certificate, Apollo College

Maggie A. Stuart (1992), Business
A.A.S., Lower Columbia College; B.S. Linfield College; M.B.A. Marylhurst University

Richard J. Swee (1993), Mathematics
B.S. and M.A.T., University of Portland

Natalie Tonn (2019), Biology
A.A., Lower Columbia College; B.S., Humboldt State University; M.S., University of Michigan

Barry Walther (2011), College and Career Preparation
A.A. Everett Community College; B.A. Western Washington University; M.A. Western Governors University

Michal-Ann Watts (2008), College and Career Preparation

A.A., Lower Columbia College; B.S., Saint Martin's University; M.Ed., University of Phoenix

Marguerite "Nonnie" Weaver (1995), Sociology, Psychology
B.A., Hunter College; M.S.W., Walla Walla College

Adam J. Wolfer, Ph.D. (2000), Chemistry/Chemical Engineering
B.S. and M.S., Oregon State University; M.S., Colorado State University; Ph.D., Oregon State University

Josie Zbaeren (2013), Early Childhood Education
A.A. Lower Columbia College; B.S.; Kaplan University; M.Ed., Walden University

Faculty and Administrators with Emeritus Status

Mr. Michael Strayer, Faculty Emeritus

Dr. Vernon Pickett, President Emeritus, 1997

Dr. Donald Fuller, Dean Emeritus, 1998

Mr. Hilmar Kuebel, Dean Emeritus, 1999

Mr. Bruce Cardwell, Trustee Emeritus, 2000

Mr. Gary Healea, Trustee Emeritus, 2005

Dr. Kurtz Carpenter, Faculty Emeritus, 2005

Mr. Lionel Livermore, Faculty Emeritus, 2005

Ms. Carol McNair, Faculty Emeritus, 2006
 Ms. Judith Irwin, Faculty Emeritus, 2006
 Ms. Ann Mottet, Trustee Emeritus, 2006
 Dr. Clint Benjamin, Faculty Emeritus, 2008
 Mrs. Evelyn Boyd, Faculty Emeritus, 2009
 Mr. Lyle Lovingfoss, Trustee Emeritus, 2009
 Ms. Kathy Demarest, Faculty Emeritus, 2010
 Ms. Mary Harding, Vice President Emeritus, 2010
 Ms. Mary Stone, Faculty Emeritus, 2011
 Ms. Helen Kuebel, Dean Emeritus, 2011
 Dr. James McLaughlin, President Emeritus, 2011
 Mr. Mike Dugaw, Faculty Emeritus, 2011
 Mr. George Dennis, Faculty Emeritus, 2011
 Mr. Richard Kelley, Faculty Emeritus, 2011
 Dr. Jerry Zimmerman, Faculty Emeritus, 2013
 Ms. Kathy Meier, Faculty Emeritus, 2014
 Mr. Don Correll, Faculty Emeritus, 2017
 Mr. Dave Cordero, Faculty Emeritus, 2017
 Ms. Darlene de Vida, Faculty Emeritus, 2017
 Ms. Sharon Layton, Faculty Emeritus, 2017
 Dr. Joel Schaaf, Faculty Emeritus, 2017
 Mr. Mark Bergeson, Faculty Emeritus, 2018
 Mr. Joseph Green, Faculty Emeritus, 2018

Ms. Rhonda Meyers, Faculty Emeritus, 2020

Mr. David L. Benson, Faculty Emeritus, 2021

Mr. Michael Strayer, Faculty Emeritus, 2023

Mrs. Karen Joiner, Dean Emeritus, 2023

Global Skills

LCC faculty developed a set of global skills that provide the foundation of the learning outcomes for all courses, programs, certificates and degrees at the college. Students are expected to have these skills when they graduate.

Communication

Express ideas and information in writing and speaking in a manner that is clear and appropriate to the audience, and read and listen effectively.

- A. Students will communicate in complete sentences, demonstrating use of grammar, mechanics, and word choice appropriate to context.
- B. Students will develop and express their ideas clearly and reasonably for a unified purpose.
- C. Students will demonstrate comprehension of a wide variety of materials.
- D. Students will use credible evidence to support arguments and conclusions.
- E. Students will document source information.
- F. Students will use a style of delivery that is effective in communicating their message.

Critical Thinking

Apply objective, valid methods of inquiry and problem-solving to draw rational, ethical, and coherent conclusions.

- A. Students will identify and define primary problems or issues.
- B. Students will present relevant, accurate, and objective information and will draw valid inferences from that information.
- C. Students will use techniques or processes appropriate to the subject to analyze and make judgments.
- D. Students will propose and evaluate solutions based on the criteria of logic, evidence, ethical principles, and coherence.
- D. Students will make judgments and draw appropriate conclusions based on the quantitative analysis of data, while recognizing the limits of this analysis.
- E. Students will make and evaluate important assumptions in estimation, modeling, and data analysis.
- F. Students will express quantitative evidence in support of the argument or purpose of the work (in terms of what evidence is used and how it is formatted, presented, and contextualized).

Quantitative Literacy (QL)

Also known as Numeracy or Quantitative Reasoning (QR) – is a "habit of mind," competency, and comfort in working with numerical data. Individuals with strong QL skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They understand and can create sophisticated arguments supported by quantitative evidence and they can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate).

- A. Students will explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words).
- B. Students will convert relevant information into various mathematical forms (e.g., equations, graphs, diagrams, tables, words).
- C. Students will perform mathematical calculations.

Teamwork

Teamwork is individual behaviors that facilitate a team's ability to achieve a desired goal or outcome.

- A. Students will make individual contributions to the team.
- B. Students will facilitate the contributions of team members.
- C. Students will foster a constructive team climate.
- D. Students will respond constructively to conflict.

Key Performance Indicators

Workforce and Economic Development

1. Provide quality professional/technical education for employment,

skills enhancement, and career development.

- Student performance
 - Demonstration of program competencies
 - College level math and English in first year
 - Completion
 - Licensure/certification rates
 - Success after completion (placement rate in the workforce)
 - Demonstration of General Education Outcomes (Global Skills)
2. Partner with business, community groups, and other educational entities to provide workforce development and customized programs and services.
 - Client assessment of programs and services

Academic Transfer

1. Offer courses and support for students to meet the requirements for transfer from Lower Columbia College.
 - Student performance
 - Transfer readiness
 - Demonstration of General Education Outcomes (Global Skills)
 - College level math and English in first year
2. Provide the support for transfer students to successfully transition to upper division college and university programs.
 - Completion and academic transfer rate
 - Success after completion/transfer

Preparation for College Level Studies

1. Ensure that learners who are under-prepared for college level studies have access to developmental coursework

and bridge opportunities to college level work.

- Basic skills achievement
- Preparation of incoming students
- Academic performance of developmental education students

Student Access, Support and Completion

1. Offer a full array of educational programs and support services to meet the diverse needs of Cowlitz and Wahkiakum counties.
 - Participation rates in service district
 - Enrollment
2. Provide students with the support needed to pursue and achieve their educational goals.
 - Student persistence (overall, fall to winter, and fall to fall)
 - Completion (overall)
 - Student satisfaction with support services
 - Faculty-student engagement
 - Student satisfaction with instruction

Institutional Excellence

1. Demonstrate our commitment to institutional integrity by investing in our campus, students and employees.
 - Employee satisfaction and morale
 - Condition of infrastructure
2. Uphold our reputation for high quality and contribute to the value of the community by promoting excellence in our programs, services and activities.
 - External perceptions/satisfaction with LCC

Limitation of Liability

The college's total liability for claims arising from a contractual relationship with the student in any way related to classes or programs shall be limited to the tuition and expenses paid by the student to the college for those classes or programs. In no event shall the college be liable for any special, indirect, incidental, or consequential damages, including but not limited to, loss of earnings or profits.

Mission, Vision and Values

Mission

The mission of Lower Columbia College is to ensure each learner's personal and professional success, and influence lives in ways that are local, global, traditional and innovative.

Vision

Our vision is to be a powerful force for improving the quality of life in our community.

Values

Our campus community expects an environment of integrity, respect, collaboration, cooperation, inclusion, and innovation that fosters personal growth, academic excellence, and accountability.

Non-Discrimination and

Anti-Harassment Information

Non-Discrimination Statement

Lower Columbia College offers over 90 certificate, associate, and applied bachelor's degree options in a variety of fields, providing a rich complement of academic and professional/technical programs. Pre-college math and English, high school completion, English Language Learning, and continuing education options are also available.

Credential seeking students must apply for admission and register in the relevant program. The College will take steps to ensure that lack of English language skills will not be a barrier to admission or participation in all educational and vocational education programs.

The College provides equal opportunity in education and employment and does not discriminate on the basis of race, color, national origin, citizenship or immigration status, age, perceived or actual physical or mental disability, pregnancy, genetic information, sex, sexual orientation, gender identity, marital status, creed, religion, honorably discharged veteran or military status, or use of a trained guide dog or service animal as required by Title VI of the Civil Rights Act of 1964, Title VII of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972, Sections 504 and 508 of the Rehabilitation Act of 1973, the Americans with Disabilities Act and ADA Amendment Act, the Age Discrimination Act of 1975, the Violence Against Women Reauthorization

Act and Washington State's Law Against Discrimination, Chapter 49.60 RCW and their implementing regulations.

Non-Discrimination and Anti-Harassment Policy

Lower Columbia College provides equal opportunity in education and employment and does not discriminate on the basis of race, color, national origin, citizenship or immigration status, age, perceived or actual physical or mental disability, pregnancy, genetic information, sex, sexual orientation, gender identity, marital status, creed, religion, honorably discharged veteran or military status, or use of a trained guide dog or service animal, as required by Title VI of the Civil Rights Act of 1964, Title VII of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972, Sections 504 and 508 of the Rehabilitation Act of 1973, the Americans with Disabilities Act and ADA Amendment Act, the Age Discrimination Act of 1975, the Violence Against Women Reauthorization Act and Washington State's Law Against Discrimination, Chapter 49.60 RCW and their implementing regulations.

Harassment is defined as a form of discrimination consisting of physical or verbal conduct that denigrates or shows hostility toward an individual because of their membership in a protected class or their perceived membership in a protected class. Harassment occurs when the conduct is sufficiently severe, persistent, or pervasive that it has the effect of altering the terms or conditions of employment or substantially limiting the ability of a student to participate in or benefit from the College's educational and/or social programs and/or student housing.

- **Discrimination & Harassment Complaint Procedure (lowercolumbia.edu/publications/administrative-policies/_assets/documents/235.1A_Procedure.pdf)**

Title IX and Sexual Misconduct

Title IX helps to foster safe and respectful college environments that better protect students, faculty and staff from incidents of sex-based discrimination and sexual harassment, including sexual violence, relationship violence and abuse.

- Learn more at **Title IX and Sexual Misconduct (lowercolumbia.edu/title-ix-sexual-misconduct)**

Sexual Harassment is defined as a form of discrimination consisting of unwelcome, gender-based verbal, written, electronic and/or physical conduct. Sexual harassment does not have to be of a sexual nature, however, and can include offensive remarks about a person's gender. There are two types of sexual harassment.

- **Hostile Environment Sexual Harassment** occurs when the conduct is sufficiently severe, persistent, or pervasive that it has the effect of altering the terms or conditions of employment or substantially limiting the ability of a student to participate in or benefit from the College's educational and/or social programs and/or student housing.
- **Quid Pro Quo Sexual Harassment** occurs when an individual in a position of real or perceived authority, conditions the receipt of a benefit upon granting of sexual favors.

Sexual violence is a form of sexual discrimination and harassment.

Nonconsensual sexual intercourse, nonconsensual sexual contact, incest, statutory rape, domestic violence, dating violence, and stalking are all types of sexual violence.

- Learn more at **Title IX and Sexual Misconduct** (lowercolumbia.edu/title-ix-sexual-misconduct)

For inquiries regarding this policy please contact:

Vice President of Foundation, HR & Legal Affairs, Title IX/EEO Coordinator Office: Administration Building, Rm. 122
Lower Columbia College, 1600 Maple Street, Longview, WA 98632
(360) 442-2121,
title9@lowercolumbia.edu
TTY/Video Relay Service: 7-1-1 or **(800) 833-6388**

Vice President for Student Services, Title IX/EEO Deputy Coordinator Office: Admission Center, Rm. 158
Lower Columbia College, 1600 Maple Street, Longview, WA 98632
360.442.2300
title9@lowercolumbia.edu
TTY/Video Relay Service: 7-1-1 or **(800) 833-6388**

Publications in Alternative Formats

College publications available in alternate formats upon request by contacting:

Disability and Access Services. (lowercolumbia.edu/disability) **(360) 442-2340**, TTY/Video Relay Service: 7-1-1 or **(800) 833-6388**

Non-Discrimination and Anti-Harassment Information in Spanish

DECLARACIÓN DE NO DISCRIMINACIÓN is located at lowercolumbia.edu/disclosure/non-discrimination/non-discrimination-spanish.

Student Handbook

The **Student Handbook** (lowercolumbia.edu/publications/student-handbook) is published in conjunction with the LCC Catalog. The Handbook includes information on:

- Acceptable Use Agreement
- Department Directory
- Departments A to Z
- Facilities Directory
- Important Things to Know
- Academic Dishonesty
- Academic Standing
- Adding & Withdrawing from Classes
- Clery ASFR Statement
- Code of Student Conduct
- Copyright and File Sharing
- Drug-Free Schools and Communities Act
- Other Student Related Policies
- Student Academic Grievance Resolution Procedures
- Student Academic Rights & Responsibilities

Academic Policies and Records

While pursuing studies and joining in campus activities, there are things students need to know about LCC's policies on grades and student records, academic and graduation requirements, and rights and responsibilities as a student. Knowing these rules will help students move smoothly through the college system.

Grades & Credits

GPA Calculation

At Lower Columbia College, students receive both letter and points-per-credit grades. Each credit class is offered for a predetermined number of credits, generally one credit per weekly contact hour of lecture or two weekly hours of laboratory contact. Points, or numerical values, are assigned to letter grades. At the end of each quarter, students receive both a letter grade and its corresponding number of points for each course in which they are enrolled. Courses receiving a grade of P (Pass), W (Withdraw), N (Audit), and I (Incomplete) are not included in the GPA. Grades and their points are as follows:

Numeric Grade	Letter Grade Equivalent
4.0	A
3.7	A-
3.3	B+
3.0	B

Numeric Grade	Letter Grade Equivalent
2.7	B-
2.3	C+
2.0	C
1.7	C-
1.3	D+
1.0	D
0.0	F
N/A	I
N/A	N
N/A	P
N/A	W

Quarter grade point averages, called GPAs, are obtained by separately adding the student's total course credits attempted and the number of points received for those courses. The total grade points earned are divided by the total GPA credit for which the student has enrolled. The resulting figure is the student's grade point average for one quarter. Only credits earned in courses at LCC are used in computing a student's grade point average.

Cumulative grade point averages are found by dividing total grade points earned by total credits attempted. To aid the student in understanding individual progress, mid-quarter grades are available from individual instructors. These are not recorded on a student's transcript.

Grade Forgiveness

A student returning to LCC after an absence of three or more years is eligible for grade forgiveness after completing at least 24 additional credits at LCC with

a GPA of 2.5 or higher. Forgiveness applies only to courses taken before returning, and students can only use forgiveness once. Students must choose entire quarters (not individual courses) for grade forgiveness. The forgiven courses will remain on the transcript with a "Grade Forgiveness" notation and the grades will be excluded from GPA calculations. Contact the Registration Office for more information.

Grade Report

Students may view their grades (unofficial transcripts) through the ctcLink student portal. Instructions for setting up a ctcLink account are provided to new students by the Registration Office. This unofficial transcript can be printed.

Auditing Courses

A student may audit any course for no credit upon payment of tuition and fees. Auditors are not required to take examinations, but may participate in course work. If you want to audit a class, you must register as an auditor. Registered students wishing to change from graded status in a course to an audit or from audit status to receiving a grade during the quarter in which they are taking the class must process the change through the Registration Office and must have the instructor's written permission. The last day to make such a change of registration is the last day to drop the class. Refer to the Withdrawing from Classes section of this catalog or contact Registration for details about the last day to withdraw from a class.

Under **RCW 28B.15.540** (app.leg.wa.gov/RCW/default.aspx?cite=28B.15.540) , Washington residents sixty years of age or older may audit courses at a reduced

rate, on a space-available basis after the first class meeting of the term. Limitations apply. Contact the Registration Office for more information.

Final Exams

The **final exam schedule** (lowercolumbia.edu/classes/finals) is available online and in the printed quarterly mailer.

Evening classes meeting once a week will take their final exam at the regular class time during finals week. Evening classes meeting more than once a week will take the final exam at the regular class time on whichever day during finals week the class agrees upon.

Students are not required to take final exams for more than two classes on a single day. Students may petition the Vice President of Instruction for other final examination arrangements if such a conflict arises, after first contacting the instructor. Exam priorities shall be based on class meeting day order first, then meeting time.

Final exams will be administered on the day designated on the final exam schedule. If a deviation from the scheduled day is desired, approval must be obtained from the Vice President of Instruction. Time changes, unanimously approved by the class, are acceptable.

Full-Time/Part-Time Load

The College considers a full-time course load to be 12 or more credits in a quarter. Full-time status may be defined differently for other purposes, such as certain financial aid programs or assessment of fees.

Incompletes

An instructor may give a grade of Incomplete (I) if a student satisfactorily completes most but not all of the course objectives. An Incomplete must be completed within one year of when it was given (or less than one year if so specified by the instructor). The final grade will replace the Incomplete on the student's transcript after the instructor submits it. Incompletes not completed within the year may result in an F.

Instructor-Initiated Withdrawal

Students who do not attend any of the class sessions during the first five instructional days of the quarter (i.e., are absent for all of the scheduled class meetings) and do not contact the instructor regarding the absence may be administratively withdrawn by the class instructor.

Pass/Fail Option

Students may choose the pass/fail grading option for any graded class. Students must initiate this option by submitting a pass/fail request to the Registration Office no later than the last day to drop without a W grade for the course. The last day to withdraw without a W grade is the tenth instructional day of the quarter for fall, winter, and spring quarters. For courses shorter than 10 weeks, including summer quarter courses, the last day to withdraw without a W is 20% of the length of the class. The decision to enroll on a pass/fail basis may be reversed by notifying the Registration Office in writing by the normal deadline to drop the class. Limitations on courses taken through the student-initiated pass/fail grading option include:

- A maximum of five credits per quarter may be taken pass/fail.
- Per Policy 305, a maximum of 15 "Pass" credits may be used toward completion of associate degree requirements except when earned as non-traditional credits or when pass/fail courses are required by a specific program.
- Courses taken pass/fail may only be used to satisfy elective credit degree requirements
- "Pass" grades are not computed in the grade point average.

Students should understand that other institutions may restrict the acceptance of "Pass" grades, or restrict pass/fail grading for major, minor, or professional courses. Some courses are only graded on a pass/fail basis. These courses are designated in the class schedule or college catalog. It is highly recommended that students consult with the college or university they intend to transfer for information on transferring credit earned through non-traditional methods.

Repeating Courses

Students may repeat courses. Normally, all grades for repeated courses are used in calculating the student's grade point average, although the student earns credit toward graduation only once. You may repeat a course and have the original grade disregarded for grade point average calculation. These rules apply:

- A student must request the grade change for a course after the course has been repeated.
- If a student has taken a course more than once before applying for retake, the student selects which quarter's grade will be removed.

- The retake policy may be used once for any individual course.
- Grade points for any course taken more than once, with the exception of the approved retake course, will be included in the grade point average.

A petition form for course retake requests is available from the Registration Office.

Academic Standards

Academic Standards Committee

The purpose of the Academic Standards Committee is to make recommendations for changes in academic policy, and to serve as the body that hears and acts upon student appeals and grievances of an academic nature. Membership consists of an academic employee elected from each instructional department, the Vice President of Student Services, and a student body representative. The Director of Registration serves as a non-voting ex officio member. The Academic Standards Committee shall review student appeals of: (1) Sanctions imposed on students for alleged arbitrary and capricious application of academic standards; (2) Application of academic policies or procedures by instructors. The Committee shall also grant or deny requests to:

1. Change grades that have been recorded.
2. Reinstate students from academic suspension.
3. Waive or substitute graduation requirements.

Petition forms are available in the Registration Office and online at lowercolumbia.edu/students/forms (see "Academic Standards Petition" under

"Academic Forms"). Completed forms should be directed to the Secretary of the Academic Standards Committee, who is the Executive Assistant to the Vice President of Student Services.

Student Academic Grievance

LCC's Academic Grievance policy (Administrative Policy 435) protects student freedom of expression in the classroom and protects each student from improper, arbitrary, or capricious academic evaluation as evidenced by the student's final course grade.

A student with an academic grievance shall follow the procedures and timelines listed in the Student Academic Grievance Procedure. More information and a copy of the Student Academic Grievance Petition form is available in the Office of the Vice President of Student Services **(360) 442-2300** or online at lowercolumbia.edu/students/forms. The full text of the **Student Academic Grievance Procedure (lowercolumbia.edu/publications/student-handbook/student-academic-grievance-procedure)** is also available in the **Student Handbook (lowercolumbia.edu/publications/student-handbook/index.pdf)**.

Academic Standing

These standards are used to identify students who experience academic difficulty and to provide additional support and assistance to improve academic standing. The policy also determines academic suspension in cases where students are unable to achieve satisfactory performance.

Students must earn a cumulative GPA of 2.0 or higher in the courses required

for a degree or certificate in order to earn a credential at Lower Columbia College. Students must also maintain a quarterly GPA of 2.0 or higher each quarter. Students who fall below this minimum quarterly GPA will be alerted at the end of the quarter regarding their academic standing. As necessary, additional information about resources and support for improving academic standing will be provided. If a student is academically suspended, they will receive information about academic reinstatement.

- Good Standing: Quarterly GPA above 2.0
- Academic Concern: First quarter of a quarterly GPA below 2.0
- Academic Notice: Second consecutive quarterly GPA below 2.0
- Academic Suspension: Third consecutive quarterly GPA below 2.0

Students not in good academic standing may be required by the college to enroll in College Success or other courses as determined by the college to assist with academic success.

Students on academic suspension shall not be allowed to enroll in credit-bearing courses at the college for two consecutive quarters. Students who are academically suspended must petition for reinstatement to the Vice President of Student Services at least six weeks prior to the quarter the student is eligible to re-enter the college. Students returning from academic suspension who earn a quarterly GPA above 2.0 will return to good standing. Students returning from academic suspension who earn a quarterly GPA below 2.0 will return to academic suspension and must follow the academic standing policy to request reinstatement.

NOTE: Individual college programs and services, including but not limited to high school completion, financial aid, veteran programs, College and Career Preparation, Running Start, and certain professional/technical programs may have different academic standard requirements and appeal procedures. Students in these programs should contact their program advisor or specific department for information regarding those requirements.

Academic Credit for Prior Learning

Portfolio Review

A student may request to have a Portfolio Review, performed by faculty, and based on prior education or work experience. Courses and credits earned through Portfolio Review are not included in the student's grade point average. Portfolio Review courses may be used to satisfy any graduation requirement but may not be accepted as part of the 24 required credits in residence. The student must pay the required fees after assessment has occurred. Transferability of Portfolio Review courses is determined by the receiving institution. **More information about Portfolio Review (lowercolumbia.edu/credit-prior-learning) .**

Course Challenge

A student may request to challenge a course if they have previously taken courses and established a transcript record at LCC and believe that previous experience has provided the competencies essential for passing the course to be challenged. The student must enroll in the course and pay the required fees. Some courses may not be challenged. Courses and grades resulting

from the challenge process will be posted to the student's transcript record at the end of the quarter during which the exam is taken. **More information about credit by Course Challenge (lowercolumbia.edu/credit-prior-learning) .**

Credit for Professional Certificates or Training (Occupational Crosswalk)

A student may request to receive credit for specific industry training and certifications that have been pre-assessed by faculty for alignment with specific classes offered at LCC. Credit granted for professional certificates or training may be used to satisfy any graduation requirement but may not be accepted as part of the 24 required credits in residence. The student must pay the required fees after assessment has occurred. Transferability of credit granted by this method is determined by the receiving institution. **More information about credit for professional certificates or training (lowercolumbia.edu/credit-prior-learning/certs-training) .**

Alternative Options for Earning Credits

Advanced Placement Examinations

Lower Columbia College grants credit for completion of the College Board's Advanced Placement (AP) examinations. AP is a cooperative educational endeavor between secondary schools and colleges and universities. The program provides motivated high school students the opportunity to take college-level courses in a high school setting. AP courses are taught by high school teachers,

following course guidelines developed and published by the College Board.

Students who participate in the program gain college-level skills and may also earn college credit. **Students interested in transferring to a four-year university should check the requirements of their target school to determine the best way to use their AP exam credits.**

Washington state community and technical colleges will grant a minimum unrestricted elective credit for an Advanced Placement (AP) score of 3 or higher. Credit will be awarded on the basis of official AP results, not transcript notation. More information about advanced placement examinations is available at lowercolumbia.edu/credit-prior-learning/alt-options.

College Level Examination Program

Credit will be granted for College Level Examination Program (CLEP) tests with a minimum score equivalent to the 35th percentile for General and Subject examinations. Subject examination credits will be granted as equivalent to credits earned in courses at LCC. Credit for Subject examination will not be granted when students have earned credit in equivalent courses. Subject and general examination credits may count toward satisfying distribution requirements for any Associate in Arts-Direct Transfer Agreement or Associate in Sciences-Transfer degree, but do not satisfy lab requirements. Per Washington State Intercollege Relations Commission (ICRC) policy, CLEP credit is considered restricted elective credit for any transfer associate degree. No more than 15 credits of restricted electives, including all credit

earned through CLEP, may be used towards a transfer degree.

Students must submit an official copy of CLEP scores to the Registration Office. Upon evaluation of those scores, the student will be notified of acceptable credits. Credit will be granted for Excelsior College Examinations on a case-by-case basis. Provisional credit will be given prior to a student's completion of 12 LCC credits. Credits will be granted and posted to the student's transcript following completion of required LCC credits. More information about the College Level Examination Program. Students must submit an official copy of CLEP scores to the Registration Office. Upon evaluation of those scores, the student will be notified of acceptable credits. Credit will be granted for Excelsior College Examinations on a case-by-case basis. Provisional credit will be given prior to a student's completion of 12 LCC credits. Credits will be granted and posted to the student's transcript following completion of required LCC credits. More information about the College Level Examination Program.

Foreign Transcript Credits

Lower Columbia College recognizes foreign transcript credits that are equivalent in academic level and nature to work offered at LCC. Students who have studied abroad and intend to use these credits towards fulfilling requirements of a program at LCC should contact the Registration Office for information on transferring credit earned outside of the United States. The Director of Registration makes the final determination on credits to be granted. More information about foreign transcript credits.

International Baccalaureate Credit

The International Baccalaureate (IB) program is a rigorous, pre-college course of study for high school students, designed to prepare students for liberal arts education at the college level. The term "international" reflects the availability of the program in several countries. The IB program is similar to the College Board Advanced Placement program. IB scores are based on rigorous coursework and a test score. LCC accepts IB credit. Students must submit an official copy of IB scores to the Registration Office. Following evaluation of IB scores, the student will be notified of acceptable credits. For transfer of credit information, a student should consult the Director of Registration. Final decision on credit granted for IB scores is determined by the Director of Registration. More information about international baccalaureate credit is available at lowercolumbia.edu/credit-prior-learning/alt-options.

Military Service Experience

Credits for military personnel's military school and experiences are granted according to the publications of the American Council on Education. Students should submit official copies of their Joint Service Transcript (JST) to the Registration Office along with a Transcript Evaluation Request form. Students planning to use VA education benefits must submit official transcripts for a credit/transcript review.

Joint Services Transcripts are ordered online. The credential evaluator will review the record and translate military training experience applicable to a student's degree or certificate into Lower Columbia College course numbers

and credit values. Final determination on credit granted for military service experience is at the discretion of the Director of Registration. Courses transferred in as electives will be considered restricted. A student is allowed up to 15 credits of restricted electives to be counted towards a transfer degree at LCC. NOTE: Some four-year institutions will not accept military credits. Students with military experience may also explore the Academic Credit for Prior Learning assessment process.

Students who change their program of study must request to have their transcripts re-evaluated to determine any applicable transfer credit for their new program of study. More information about military service experience is available at lowercolumbia.edu/credit-prior-learning/alt-options.

Graduation & Transfer

Applying for Graduation

To receive a degree from LCC, students must apply for graduation through the Registration Office. **Graduation applications are available online (lowercolumbia.edu/graduation)** and at the Registration Office. A student should consult with an advisor to ensure that all course requirements will be completed by the intended date of graduation, and return the completed application to the Registration Office by the quarterly deadline. It is recommended that students apply for graduation two quarters before they intend to graduate so that any deficiencies may be identified and corrected. Students may graduate at the end of any quarter.

Commencement exercises are held in June each year. Students who

have completed requirements during the past year may participate in the June commencement ceremony. Students eligible to graduate at the end of summer quarter, may—during the preceding spring quarter—apply for spring graduation and participate in commencement, completing requirements through the summer completion option.

Students may apply for graduation under the graduation requirements in effect at the time they first enrolled, provided the first enrollment year is within five years of the year of graduation.

Transferring Credit

LCC recognizes academic credits earned at other accredited collegiate institutions that are essentially equivalent in academic level and nature to work offered at LCC. Credits earned at other accredited collegiate institutions will become part of the student's LCC permanent records if the student earned a C- or better. However, the cumulative GPA will only be calculated using LCC courses. The College subscribes to the Statewide Policy on Intercollege Transfer and Articulation Among Washington Public Colleges and Universities, which is endorsed by the state's public colleges and universities and the State Board for Community and Technical Colleges, and is adopted by the Washington Student Achievement Council. The policy deals with the rights and responsibilities of students and creates an appeal process in transfer credit disputes.

Reciprocity Between 2-Year Colleges

Washington community and technical colleges (CTCs) offer reciprocity to

students transferring within the CTC system who are pursuing the Associate in Arts – Direct Transfer Agreement degree or the Associate in Sciences – Transfer degree. Students who completed an individual course that met distribution degree requirements or fulfilled entire areas of their degree requirements at one college will be considered to have met those same requirements if they plan to complete the same degree when they transfer to another community or technical college in Washington. These degree requirements include Communication Skills, Quantitative Skills, Diversity, and/or Distribution Area requirements. Students must initiate the review process and be prepared to provide necessary documentation. More information is available at the Registration Office.

Transfer Degrees

Washington State colleges and universities and many private colleges and out-of-state institutions recognize graduates of Lower Columbia College who have earned the Associate in Arts-Direct Transfer Agreement degree as satisfying most or all of their general education requirements and will normally grant junior standing on transfer. Some colleges require specific course patterns or courses, in addition to the basic Associate in Arts degree. More information about transfer options is available at lowercolumbia.edu/university-center/transfer-options.

Washington 45

A student who completes courses selected from the categories listed below will be able to transfer and apply up to 45 quarter credits toward general education requirements at any other public, and

most private, higher education institutions in the state.

First Year Transfer List

- Communications (5 credits)—ENGL& 101, ENGL& 102
- Quantitative and Symbolic Reasoning (5 credits)— MATH& 107, MATH& 148 or MATH& 151
- Humanities (10 credits in two different subject areas or disciplines)—PHIL& 101, MUSC& 105, DRMA& 101, HIST& 116
- Social Science (10 credits in two different subject areas or disciplines)— PSYC& 100, SOC& 101, POLS& 101, POLS& 202, HIST& 117
- Natural Sciences (10 credits in two different subject areas or disciplines)— BIOL& 100, BIOL& 160 w/ lab, ASTR& 101 with lab, CHEM& 110 with lab, CHEM& 121 with lab, CHEM& 161, CHEM& 162, GEOL& 101 with lab.
- Additional 5 credits in a different discipline can be taken from any category listed above.

For transfer purposes, a student must have a minimum grade of C or better (2.0 or above) in each course completed from this list. Students who transfer Washington 45 credits must still meet the transfer institution's admission requirements and eventually satisfy all their general education requirements and their degree requirements in major, minor and professional programs.

Student Records (FERPA)

Official Transcripts

An official transcript is a copy of the student's permanent record, signed

by the Director of Registration with the school seal placed over this signature. An unofficial transcript is an unsigned and non-seal-bearing copy of that record. A student may request a transcript in person, in writing, or at lowercolumbia.edu/transcripts. A transcript will only be released to the student or to persons authorized in writing by the student. LCC charges a small processing fee for each official transcript requested.

Unofficial Transcripts

See Grade Report on the first page of the Academic Policy section.

Annual Notification of Student Privacy (FERPA)

The *Family Educational Rights & Privacy Act* (FERPA) is a federal law that governs the release of and access to student education records. Section 99.7 of FERPA requires that students be informed of their rights under the law. Student rights include:

- The right to inspect and review their education records.
- The right to request the amendment of their education records to ensure they are not inaccurate, misleading, or otherwise in violation of their privacy or other rights.
- The right to consent to disclosures of personally identifiable information contained in their education records, except to the extent that the Act and regulations authorize disclosure without consent, such as to school officials with legitimate educational interest.
- The right to file a complaint with the U.S. Department of Education StudentPrivacyPolicyOffice under Sections 99.63 and 99.64 concerning

alleged failures by the College to comply with the regulations of the Act. The office that administers FERPA is:

StudentPrivacyPolicyOffice
U.S. Department of Education
400 Maryland Avenue, SW
Washington, D.C. 20202

Disclosure of Student Information

Student information is generally not released by Lower Columbia College without written consent of the student. However, there are some exceptions. FERPA permits the disclosure of personally identifiable information from student education records without student consent if the disclosure meets certain conditions found in 99.31 of FERPA. Disclosure is permissible when it is:

- To school officials, including teachers, within the institution whom the institution has determined to have a legitimate educational interest.
- To officials of another institution of postsecondary education where the student seeks or intends to enroll or where the student is already enrolled so long as the disclosure is for purposes related to the student's enrollment transfer.
- To authorized representatives of federal, state, or local educational authorities.
- To the student.
- In connection with the student's request for or receipt of financial aid.
- Required by a state law requiring disclosure that was adopted before November 19, 1974.
- To organizations conducting certain studies for or on behalf of the College.

- To accrediting organizations to carry out their functions.
- To comply with a judicial order or lawfully issued subpoena. *Note: The College will make a reasonable effort to notify the student or a designee of the order or subpoena before complying.*
- To appropriate parties in a health or safety emergency.
- To a victim of an alleged perpetrator of a crime of violence or a non-forcible sex offense, subject to the requirements of 99.39. The disclosure may only include the final results of the disciplinary proceeding with respect to that alleged crime or offense, regardless of the finding. (99.31 9(a)(13))
- To the general public, the final results of a disciplinary proceeding, subject to the requirements of 99.39, if the school determines the student is an alleged perpetrator of a crime of violence or non-forcible sex offense and the student has committed a violation of the school's rules or policies with respect to the allegation made against him or her. (99.31 (a)(14))
- To parents of students who are claimed as dependents for income tax purposes and the institution has verified that fact (unless there is a court order, state statute or other legally binding document prohibiting such). A copy of the parents' most recent federal income tax return is required and students will be notified in advance of release of records for this purpose.
- To parents of a student regarding the student's violation of any federal, state or local law, or any rule or policy of the school, governing the use or possession of alcohol or a controlled substance if the school determines the student committed a disciplinary

violation and the student is under the age of 21. (99.31 (a)(15))

- Information the school has designated as "directory information" under 99.37.

Except for disclosures to school officials, disclosures of directory information, and disclosures to the student, FERPA 99.32 requires the College to record the disclosure. Eligible students have a right to inspect and review the record of disclosures.

School Officials

As a part of its FERPA policy, Lower Columbia College defines school officials as: members of the College in an administrative, supervisory, academic, research, or support position or a person employed by (or under contract to) the College to perform a special task, such as an agent, attorney, or auditor. A school official has a "legitimate educational interest" if the official needs to access student information in order to fulfill their official responsibilities, or by a contract agreement related to a student's educational experience.

Directory Information

The following has been designated as directory information by Lower Columbia College and may be released without a student's written consent:

- Name
- Major field of study
- Enrollment status
- Dates of attendance
- Participation in recognized sports
- Degree or certificate earned
- Term degree or certificate awarded
- Honors

Consequences of Restricting Directory Information

Students may request that directory information not be released. Restricting the release of directory information will have other consequences, including:

- Verification of the student's enrollment or degrees may not be provided to potential employers or other third parties.
- The student's name may not appear in the commencement program.
- The student's name may not be released to any newspaper or other agencies in recognition of graduation or other achievements.
- The student may be excluded from lists of academic award winners.

A directory information restriction applies to all elements of directory information in a student's record. Individual directory information data elements cannot be restricted or released. Lower Columbia College does not assume responsibility for contacting a student for ongoing permission to release directory information and does not assume liability for honoring a student's request to restrict disclosure of directory information.

To restrict the release of directory information, students must complete a "Student Request for Non-Disclosure of Directory Information" form, available in the Registration Office. For more information, **contact Registration at registration@lowercolumbia.edu**.

Requesting an Amendment of Records

Students may request the amendment of their education records that they believe are inaccurate, misleading, or otherwise in violation of their privacy rights under FERPA. A student who wishes to ask the College to amend a record should first submit a written request to the Registration Office clearly identifying the part of the record the student wants changed and a detailed explanation of why it should be changed. If the College decides not to amend the record as requested, the Registration Office will notify the student in writing of the decision and of the student's right to a hearing regarding the request for amendment. The hearing will be conducted according to FERPA 99.20-22. Additional information regarding the record amendment and hearing process can be found in the **Student Handbook (lowercolumbia.edu/publications/student-handbook/student-academic-grievance-procedure)**.

The Solomon Amendment

The Solomon Amendment (1998) is a federal law requiring institutions that receive federal funding to allow military recruiters:

- Entry to campus
- Access to students on campus
- Access to lists containing recruiting information on students

The Solomon Amendment identifies certain information that military recruiters may request about students age 17 years or older who are currently enrolled in classes. This information is known as Student Recruiting Information and includes only:

- Name
- Address
- Telephone number
- Age
- Class level
- Academic major
- Place of birth
- Degrees received
- Most recent educational institution attended

If a student restricts the release of directory information under FERPA, then the College may not release such information to the military (FERPA supersedes the Solomon Amendment). There are additional guidelines for the release of data. The registrar authorizes all data released to the requesting units and questions should be directed to Registration Office.

Honors & Recognition

All Washington Academic Team Award

Up to two Lower Columbia College students are honored each year through the All-Washington Academic Team recognition programs. State team members are nominated by their community college presidents. Each All-Washington Academic Team member may receive a scholarship funded by program sponsors. The state's public baccalaureate institutions and several private colleges also offer scholarships to community college transfers who are award winners. More information about the **All-Washington Academic Team** (lowercolumbia.edu/student-life/student-awards/all-wa-team) is available online.

Honors Lists

The Honors List is compiled at the end of each quarter to recognize students who have achieved commendable grade point averages.

Quarterly President's and Dean's Lists (lowercolumbia.edu/student-life/student-awards/honors-list) are submitted to The Longview Daily News for publication and are posted on the LCC website.

- **President's List:** to be named to the president's list, students must attend school full-time and earn a quarterly grade point average between 3.8 and 4.0.
- **Dean's List:** to be named to the dean's list, students must attend school full-time and earn a quarterly grade point average between 3.25 and 3.79.

Outstanding Student Awards

Each spring, LCC faculty and staff select outstanding students from their respective fields of study and activities for recognition. The students are honored at a reception hosted by the Associated Students of Lower Columbia College and the Vice President of Instruction. More information about the Outstanding Student Awards is available at lowercolumbia.edu/student-life/student-awards/outstanding-students

Scholastic Achievement Awards

Lower Columbia College does not designate a valedictorian. Instead, we recognize three students with the highest grade point averages and most rigorous coursework.

One award is given to a student in a professional/technical pathway, one in an academic transfer pathway, and one in a Bachelor of Applied Science pathway. Scholastic Achievement Awards are LCC's *highest* academic honors.

Awards are presented each year at the annual (lowercolumbia.edu/commencement) commencement ceremony. These are the *only* awards presented during Commencement.

Degrees and Certificates

General Requirements for Earning Degrees

- Maintain a minimum grade point average of 2.00 on the credits used toward the degree.
- Complete at least two quarters at Lower Columbia College.
- Earn at least 24 credits at Lower Columbia College, excluding credits by examination.
- Earn no more than 15 optional pass/fail credits (P/F not to be used in English 101/102, or to satisfy the communications, quantitative skills, core program, or distribution requirements for any associate degree).
- Diversity requirement—5 credits. See quarterly schedule for diversity classes. Courses that meet this requirement may also be used toward other graduation requirements.
- Every program* at LCC includes a College Success course (COLL 101). LCC requires all new students with fewer than 30 successful college credits on their transcript to take a College Success course within their first two quarters.

*including degrees and certificates of 24 credits or more

Transfer Degrees

Lower Columbia College offers a number of transfer degrees options that allow students to complete the first two years of a bachelor's degree. The Major Related Program (MRP) degrees build on these to provide specific preparation to enter

bachelor programs. Requirements for LCC graduation and acceptance at a four-year college vary by degree type, field, and college. In addition, the following requirement applies to transfer associate degrees:

- Minimum of 90 transferable credits in courses numbered 100 and above. No more than 6 credits in PHED activity courses**; no more than 15 credits in Cooperative Work Experience and/or Independent Study, and no more than 5 credits in performance/skills courses are allowed.

**No more than 3 PHED activity credits are allowed within the AA-DTA.

Associate in Arts and Sciences (AA)

The program-specific Associate in Arts and Sciences (AA) transfer degree is for students who are sure of the baccalaureate institution they wish to attend. This may be a good option for students who plan to earn a bachelor's degree in a professional field.

Students must work closely with their program advisor to design a program that will fulfill the transfer institution's general admission and program entry requirements. Students should expect to have courses evaluated on a course-by-course basis upon transfer to the upper division. The LCC program advisor and the appropriate department chair must approve the intended program, and the student must file an intent to earn this degree when applying for graduation from LCC.

To earn an AA, you need:

- General Requirements for Earning an Associate Degree (above).
- Communications requirement—15 credits: ENGL& 101 English Composition I, ENGL& 102

Composition II or ENGL& 235
Technical Writing, and CMST&
220 Intro to Public Speaking or CMST&
230 Small Group Communication.

- Other: 70 credits minimum - approved by the program advisor and the appropriate department chair.

Associate in Arts - Direct Transfer Agreement (AA-DTA)

The Direct Transfer Agreement associate degree, sometimes called the Associate in Arts or Associate in Arts and Sciences degree, is the community college degree designed to transfer to most bachelor of arts degree programs at Washington's four-year institutions.

Degrees structured under the DTA umbrella provide:

- Admissions consideration at public universities for most humanities and social science majors vs. non-degreed transfers.
- Completion of lower division general education requirements.
- Credit for all courses completed within the AA-DTA up to and in some cases beyond 90 credits.
- Opportunity to explore several fields of study through the category of up to 30 credits of elective courses.
- Opportunity to complete prerequisites for a future major.

To earn an AA-DTA, you need:

- General Requirements for Earning an Associate Degree (above).
- Communications requirement—15 credits: ENGL& 101, ENGL& 102, and CMST& 220 or CMST& 230.
- Quantitative/symbolic reasoning skills requirement— 5 credits— Intermediate Algebra Proficiency required. Choose one of the following: MATH& 107 or

higher with the exception of MATH& 131.

- Humanities requirement—15 credits from at least two areas on the Distribution List. No more than 10 credits from any one discipline; no more than 5 credits in performance skills courses; no more than 5 credits in foreign language at the 100 level. Courses may be credited toward no more than one distribution.
- Social Sciences requirement—15 credits from at least two areas on the Distribution List. No more than 10 credits from any one discipline. Courses may be credited toward no more than one distribution.
- Natural Sciences requirement—15 credits. Selected from at least two disciplines on the distribution list for transfer degrees including 5 credits of lab courses. At least 10 credits must be in physical, biological and/or earth sciences. No more than 10 credits from any one discipline and no more than 5 credits from Computer Science, Mathematics, and Engineering. Courses used to satisfy this requirement may not be used to satisfy the Quantitative Skills requirement.
- Diversity requirement—5 credits. Courses that meet this requirement may also be used toward other graduation requirements and will be designated in course schedules.
- Electives—of the remaining credits taken to earn 90 credits for the degree, no more than 15 credits may be taken from the restricted course list.

Major Related Program (MRP)

Major Related Program (MRP) degrees build on the Associate in Arts - Direct Transfer Agreement degree for students

in the arts, humanities and social sciences, and the Associate in Sciences - Transfer degree for students in engineering and science-based fields. Two- and four-year colleges work together to create these programs so that LCC graduates can transfer smoothly into the bachelor degree program of their choice.

Specific requirements for the different MRP degrees are located in the 'Programs of Study' section of the catalog.

Associate in Applied Science - Transfer (AAS-T)

The Associate in Applied Science-Transfer degree is built upon the technical courses required for job preparation but also includes a college-level general education component common in structure for all such degrees. Public and private universities are not required to accept AAS-T degrees. Students must check with their advisor at Lower Columbia College and a representative from the college they plan to attend to determine the specific transfer and admission requirements in their field of study.

Associate in Science-Transfer (AS-T)

The Associate in Science - Transfer degree is designed for community and technical college students seeking to major in engineering and science. Degrees structured under the AS-T umbrella provide:

- Admissions consideration at public universities for most science and engineering majors vs. transfer students without a degree.
- Completion of similar lower division general education requirements as first-year and second-year university

students in engineering or science-based fields.

- Credit for all courses completed within the AS-T up to 90 credits. In some cases more credits may be accepted.
- Opportunity to complete math and science prerequisites for the chosen major.

There are two AS-T degree options:

- Option One: biological sciences, environmental or resource sciences, chemistry, geology, and earth sciences.
- Option Two: computer science, engineering, physics, and atmospheric sciences.

For either of these options, you must work closely with your advisor and enroll in courses that meet your transfer institution's requirements.

To earn an AS-T, you need:

- General Requirements for Earning an Associate Degree (above).
- Communications requirement—ENGL& 101 (5 credits).
- Mathematics requirement—MATH& 151 and 152 (10 credits).
- Humanities/Social Sciences requirement—15 credits.
- Pre-major program courses specific to the appropriate track. It is recommended that all sequence courses be completed at one institution.
- Remaining courses specific to the appropriate track: 10-15 credits.

Bachelor of Applied Science (BAS)

The Bachelor of Applied Science (BAS) degree is a 180 credit baccalaureate degree, specifically designed to build on professional/technical associate degrees that provide workplace skills, such as Associate in Applied Science - Transfer

(AAS-T) degrees. BAS degrees include a professional core of courses from the AAS-T degree, general education credits, and upper-division courses. BAS degrees are a pathway to the baccalaureate level with upper-division coursework in an applied field, providing expanded career opportunities for graduates and meeting the needs of employers in the community.

BAS degree general requirements:

- Minimum cumulative grade point average of 2.00 as designated by each individual BAS program.
- A minimum of 50 quarter hours of general education courses are required in the following distribution areas:
 - Communication Skills (10 credits). Must include at least two communication courses to include a minimum of one English composition course (ENGL& 101). Remaining credits must be an additional composition course or designated writing-intensive course or course in basic speaking skills (e.g., speech, rhetoric, or debate).
 - Quantitative/Symbolic Reasoning Skills (5 credits). Must be achieved through one of the following college-level courses: symbolic reasoning or a quantitative reasoning course in computer science, statistics, or mathematics.
 - Distribution requirements:
 - Humanities (5 credits).
 - Social Sciences (5 credits).
 - Natural Sciences (5 credits). At least 5 credits in physical, biological and/or earth sciences. Must include at least one laboratory course.
 - Additional general education courses (20 credits). Remaining general education courses needed to achieve the required 50 credits must be

selected from distribution areas above or as specifically designated by each baccalaureate degree.

Students who have earned a baccalaureate degree from an institution accredited by one of the following agencies:

- Accrediting Commission for Community and Junior Colleges, Western Association of Schools and Colleges (ACCJC)
- Higher Learning Commission (HLC)
- Middle States Commission on Secondary Schools (MSA-CESS)
- Northwest Commission on Colleges and Universities (NWCCU)
- Southern Association of Colleges and Schools Commission on Colleges (SACSCOC)
- Middle States Commission on Higher Education (MSCHE)
- New England Commission of Higher Education (NECHE)
- WASC Senior College and University Commission (WSCUC)

will have met the general education requirements (basic and distribution areas) for an applied baccalaureate degree from a Washington State community or technical college. Students must still complete program-specific general education degree requirements if not otherwise satisfied.

Specific requirements for the BAS in Teacher Education (BAS-TE)

- To qualify for admission, applicants must have an AAS or AAS-T degree or equivalent. The program offers two tracks: teacher certification (track one) and non-certification (track two). The teacher certification option offers endorsements in Early Childhood

Education and Elementary Education. The non-certification option provides specialized coursework for working with children and families in early learning settings.

- Acceptance into the program is by application only and requires fulfilling admittance requirements. Students should consult with an advisor regarding additional prerequisite course requirements to be completed before beginning the program.
- This BAS degree is awarded upon completion of a minimum of 180 credits as outlined. More BAS-TE information is available online at lowercolumbia.edu/bas-teacher-education.

Professional/Technical Degrees and Certificates

Lower Columbia College offers a number of options that prepare students for entry into the workforce. Associate degrees in the Professional/Technical area are not generally considered transfer degrees, although exceptions may be allowed for certain programs upon approval. Representatives from local business and industry help define these programs so our graduates meet the standards defined by people in the workforce. See also "General Requirements for Earning Associate Degrees," above.

Associate in Applied Science (AAS)

To earn an AAS, you need:

- Minimum of 90 credits in courses numbered 050 and above.
- Communications requirement—5 credits. ENGL& 101, ENGL& 102, or 110; BUS 119; or CMST& 220. See specific program planners for communication course requirements for each program of study.
- Quantitative skills requirement—5 credits. MATH& 107 or higher, Math 105, Math 106 or BUS 104. See specific program planners for math course requirements for each program of study.
- Human Relations requirement—2-5 credits. ANTH& 206; BUS 144, BUS 150, or BUS 240; CDS 102 or 215; ECED& 115 or 130; HDEV 110; NURS 101 or 202; PSYC& 100, PSYC 204, or 214; SOC& 101; or CMST& 210.
- Note: courses that meet Human Relations requirement may also be used to satisfy another requirement of the degree.
- Social Sciences, Natural Sciences, and Humanities requirement—10 credits. At least 5 credits each in two of these three areas.
- Minimum of 45 credits for specific courses identified in the degree program and recommended by the advisor.
- No more than 6 credits in PHED activity courses; no more than 15 credits in Cooperative Work Experience, Tutoring, and/or Independent Study. No more than 15 pass/fail credits, except when a pass/fail class is required by a specific program or when earned as non-traditional credits. Students must maintain a 2.0 GPA in graded courses.
- Diversity requirement—5 credits. See quarterly schedule for diversity classes. Courses that satisfy this requirement may also be used to satisfy other graduation requirements.

Certificate of Proficiency (COP)

- 45 credits or more.
- Communications requirement—5 credits.

- Quantitative skills requirement—5 credits.
- Social Science/Human Relations requirement—5 credits.
- Some programs also have a Natural Sciences and/or Health requirement.

Certificate of Completion (COC)

This short-term program of occupational training consists of a sequence of courses totaling 1-44 credits. Many students choose to continue earning credits, going on to earn a certificate of proficiency or an associate degree.

College and Career Preparation

College and Career Preparation (CCP)

College and Career Preparation (CCP) classes are designed to help adult students, 16 years or older, acquire the skills needed to keep up with a demanding, technology driven job market, affordably and conveniently. To accommodate busy schedules, classes are available morning, afternoon, evening, and in a variety of online formats to help students:

- earn credits required to complete a Washington State High School Diploma
- prepare for the General Education Development (GED) exam
- develop or refresh the knowledge and skills required for college-level classes
- prepare for college entrance exams

Students study English and math. Some classes are contextualized in science, history, government, occupational education, health, fine arts, and digital literacy. Classes are available on campus and online. Tuition is just \$25 per quarter. Financial assistance is available for those who need it. See below for contact and other important information.

Phone number: **(360) 442-2580**
 Webpage: lowercolumbia.edu/transitional/abe
 Located in Vocational (VOC 159)

English Language Learning (ELL)

English Language Learning (ELL) classes are designed to help adult students, 16 years or older, acquire the English skills needed to pursue a career pathway in a demanding, technology driven job market, affordably and conveniently. To accommodate busy schedules, classes are available morning and evening to help students:

- Develop the English language skills required to transition into College and Career Preparation
- Earn credits required to complete a Washington State High School Diploma
- Prepare for the General Education Development (GED) exam

Students study English in the context of science, history, government, occupational education, health, fine arts, and digital literacy. Classes are available on campus, and at various locations including LCC and Woodland Middle School. Tuition is just \$25 per quarter. Financial assistance is available for those who need it. See below for contact and other important information.

Phone number: **(360) 442-2580**
 Webpage: lowercolumbia.edu/transitional/esl
 Located in Vocational (VOC 159)

Integrated Basic Education and Skills Training (I-BEST)

I-BEST helps students with a fast track to a career and student success.

- I-BEST students get twice the instruction and support.

- I-BEST students learn in a team teaching environment with up to five hours or more each week of assistance.
- I-BEST students can apply credits toward a professional-technical degree in a high-demand career field.

I-BEST instructors are available to students for up to five hours or more each week in an academic support classroom. College credits earned can be applied toward two year Associate degrees in high demand career fields.

Business

- Business: General Business - Certificate of Proficiency (COP)
- Business: Retail Management Certificate of Completion (COC)
- Business Technology: Administrative Support - Certificate of Proficiency (COP)
- Business Technology: Medical Reception - Certificate of Proficiency (COP)

Education

- Early Childhood Education: Associate in Applied Science (AAS)
- Early Childhood Education: (State Certificate) - Certificate of Proficiency (COP)
- Early Childhood Education: (State Short Certificate) - General - Certificate of Specialization (COS)
- Early Childhood Education: (State Initial Certificate) - Certificate of Completion (COC)
- Early Childhood Education: (State Short Certificate) - Infants & Toddlers - Certificate of Specialization (COS)
- Early Childhood Education: (State Short Certificate) - School Age Care - Certificate of Specialization (COS)

- Early Childhood Education: (State Short Certificate) - Family Child Care - Certificate of Specialization (COS)
- Early Childhood Education: (State Short Certificate) - Administration- Certificate of Specialization (COS)

Healthcare

- Medical Assisting: Certificate of Proficiency (COP)
- Nursing Assistant: Certificate of Completion (COC)

Industrial Trades

- Automotive Technology: Maintenance and Light Repair - Certificate of Proficiency (COP)
- Diesel/Heavy Equipment: Preventative Maintenance - Certificate of Proficiency (COP)
- Manufacturing: Multicraft Trades - Certificate of Proficiency (COP)
- Welding: Welding Technology - Certificate of Proficiency (COP)
- Machine Trades: Certificate of Proficiency (COP)

See below for contact and other important information.

Phone number: **(360) 442-2584**

Webpage: **lowercolumbia.edu/transitional/ibest**

Located in Vocational (VOC 159)

High School Programs

Career and Technical Education (CTE)

You may have already earned college credit by completing Career and Technical Education (CTE) courses at your high school. Career and Technical Education credits provide a seamless pathway between articulated high school CTE classes and LCC professional/technical programs. See below for contact and other important information.

Phone number: **(360) 442-2496**
 Webpage: lowercolumbia.edu/cte
 Located in the Admissions Center (ADC)

College in the High School (CHS)

The LCC College in the High School program is a cooperative program between local school districts and LCC. The program allows high school students the opportunity to earn LCC college credit while simultaneously earning high school credit for approved advanced high school courses. The courses are taught by high school teachers who work closely with LCC faculty partners to ensure the course is equivalent to a similar course taught on campus.

Phone number: **(360) 442-2370**
 Webpage: lowercolumbia.edu/chs
 Located in the Admissions Center (ADC)

General Education Development (GED)

Lower Columbia College is an official GED testing center. Adults who did not

finish high school may earn high school credentials by taking this series of four tests. Practice and instruction is available to help you prepare for the GED test through College and Career Preparation. See below for contact and other important information.

Testing:

Phone number: **(360) 442-2360**
 Webpage: lowercolumbia.edu/ged
 Located in the Main Building (MAN)

Instruction (College and Career Preparation):

Phone number: **(360) 442-2580**
 Webpage: lowercolumbia.edu/transitional/abe
 Located in Vocational 159 (VOC 159)

High School+

Students who want to complete a Washington State High School Diploma and prepare for college or career conveniently and affordably, enroll in the High School+ program.

Tailored for adults with busy schedules, High School+ credit bearing classes are available morning, afternoon, and evening.

Different than traditional high school completion programs, High School+:

- awards credit for prior learning achieved through work, life, and military experience
- awards credit for previous high school and college transcripts
- offers a diploma that is more accepted by the military than other equivalency options
- opens the door to federal financial aid for college

- helps to develop or refresh the knowledge and skills required for college-level classes
- helps students prepare for college entrance exams

Students must demonstrate competency in English and math in the context of required subjects including science, history, government, occupational education, health and fine arts. Tuition is just \$25 per quarter. Financial assistance is available for those who need it. See below for contact and other important information.

Phone number: **(360) 442-2580**

Webpage: lowercolumbia.edu/transitional/hs-plus

Located in Vocational 159 (VOC 159)

Open Doors

Open Doors is a youth re-engagement program that provides education and services to older youth, ages 16-21, who have dropped out of school, are behind on credits and not expected to graduate on time, or are failing to thrive in the traditional high school environment. Area school districts, including Longview and Kelso, have partnered with LCC to offer this alternative path to a GED, high school diploma, and/or vocational training. Students complete high school courses in a flexible, competency-based program. Classes are available face-to-face, hybrid and online, and instructors and staff are available to assist every step of the way. Eligible students can also begin work on a certificate or college degree while applying those same classes to their high school requirements. Tuition, books, supplies, tutoring and individual career guidance are provided at no cost.

Phone number: **(360) 442-2691**

Webpage: lowercolumbia.edu/transitional/open-doors

Located in Physical Science 106 (PSC 106)

Running Start

Running Start allows qualifying Washington State high school juniors and seniors to enroll into college level courses and earn college and high school credits at the same time. The program covers tuition costs for those who meet minimum academic requirements. Students who qualify for free or reduced lunch may also receive assistance with fees and books. Visit LCC's Running Start webpages or call the Running Start Office to learn more. See below for contact and other important information.

Phone number: **(360) 442-2442**

Webpage: lowercolumbia.edu/running-start

Located upstairs in the Student Center (STC - second floor)

Corporate and Continuing Education

Lower Columbia College Corporate and Continuing Education provides opportunities for individuals, businesses, and organizations to pursue their personal, professional, and corporate training goals.

Corporate and Continuing Education offers events, classes, customized training, workforce training, and activities to the local community. Explore classes in business and professional development, health and wellness, arts and culture, science and nature, certification (flagger, first aid/CPR, etc.) and computer technology. Each class allows participants to pursue their personal, professional, and corporate training goals. Online courses are available for both professional development and personal enrichment.

Help your business thrive through Corporate and Continuing Education customized training plans that help you attain your goals.

Whatever your choice, Corporate and Continuing Education makes lifelong learning fulfilling.

- Explore an interest or start a new hobby.
- Enhance your job skills through professional development and computer classes.
- Earn a certificate to further your professional portfolio.

There's something for everyone at Corporate and Continuing Education. We

are here to promote your success! Please reach out to us and let us know how we can help you. See below for contact and other important information.

Phone number: **(360) 442-2600**

Webpage: **lowercolumbia.edu/ce**

Email: **ehoff@lowercolumbia.edu**

Distribution Lists

LCC students must meet distribution requirements for associate degrees and specific certificates.

Diversity Course List

Course Number	Course Name
ANTH& 100	Survey of Anthropology
ANTH& 206	Cultural Anthropology
ART& 100	Art Appreciation
ART 224	History of Graphic Design
ART 227	History of Western Art II
ART 228	History of Western Art III
ASL& 123	American Sign Language III
BTEC 165	Cultural Awareness for Care Professionals
BUS 144	Management of Human Relations
CHIN& 121	Chinese I
CHIN& 122	Chinese II
CHIN& 123	Chinese III
CMST 250	Intercultural Communication
CMST 240	Rhetorical Criticism and Popular Culture

Course Number	Course Name
EDUC& 205	Introduction to Education w/Field Experience
EDUC 319	Anti-bias Education
ENGL 140	Intro to Women Writers
ENGL 245	Contemporary Literature
ENGL 246	Rainbow Readers:LGBTQ Literature
ENGL 280	Multicultural Literature
HIST& 126	World Civilization I
HIST& 127	World Civilization II
HIST& 128	World Civilization III
HIST 205	History of East Asia
HIST& 215	Women in U.S. History
HUM 104	Ethics and Cultural Values
HUM 131	Introduction to World Religions
HUM 164	Cultural Journeys
HUM 210	Myths and Rites
OLTM 440	Ethics and Leadership: Leading and Managing in a Diverse Society
SOC& 101	Introduction to Sociology (Includes WAOL's SOC& 101)
SOC& 201	Social Problems: The Pursuit of Social Justice DIV

Course Number	Course Name
SOC 210	Human Sexuality
SOC 225	Race and Ethnicity
SPAN& 121	Spanish I
SPAN& 122	Spanish II
SPAN& 123	Spanish III

Distribution List

See program planners for specific requirements.

Humanities

***Performance Skills Courses/max 5 cr.**

****No more than 5 credits in foreign language at the 100 level.**

ART& 100, ART 101*, 102*, 103*, 106, 107, 108*, 109, 110, 111*, 112*, 113*, 121, 122, 123, 131, 132, 133, 141*, 142*, 143*, 150*, 151*, 152*, 200, 209, 224, 226, 227, 228, 230

ASL& 121**, 122**, 123**

CHIN& 121**, 122**, 123**

CMST& 210 (was SPCH 104), 220 (was SPCH 110), 230 (was SPCH 114), CMST 240 (was SPCH 209), 250 (was SPCH 109)

DANCE 100*, 105*, 110*, 151*, 152*, 153*, 251*, 252*, 253*

DRMA& 101, DRMA 106*, 107*, 108*

ENGL 106, 108, 140, 204, 205, 215, 221, 222, 231, 232, 233, 234, 245, 246, 251, 252, 254, 255, 256, 260, 270, 280, ENGL& 112, 235, 244

HIST& 126

HUM 104, 107, 109, 120, 124, 125, 126, 131, 150, 164, 210, 230, 250, 251, 255, 315, HUM& 116, 117, 118

MUSC 100, 106, 107, 108, 115*, 121*, 122*, 123*, 130*, 131*, 132*, 133*, 135*, 145, 150*, 151*, 152*, 153*, 176*, 177*, 178*, 221*, 222*, 223*, 251*, 252*, 253*, 276*, 277*, 278*, MUSC& 105, 141, 142, 143, 241, 242, 243

OLTM 440

PHIL& 101, PHIL 260

SPAN& 121**, 122**, 123**, 221, 222, 223

Natural Sciences¹

****Lab Courses**

Physical Sciences	Biological Sciences	Earth Sciences
CHEM& 110**, CHEM& 121**, 131**, CHEM& 161**, 162**, 163**, CHEM 231**, CHEM& 261**, 262**, 263**, PHYS& 100**, 114**, 115**, 116**, 221**, 222**, and 223**	ANTH& 205 BIOL& 100**, BIOL& 160**, BIOL& 221**, 222**, 223**, BIOL& 241**, BIOL& 242**, BIOL& 260**, BIOL 109**, BIOL 127,	ASTR& 101**, ERSI 104** or 105**, 109**, ENVS& 100 ENVS 215**, 440 GEOG 105**, 297** GEOL 105**, 118**, 124, 297** GEOL& 101** and 208** OCEA& 101**

Physical Sciences	Biological Sciences	Earth Sciences
PHSC 108**, and 109**	BIOL 130**, 150**, and 179** BIOL 297 BIOL 298 NUTR& 101 NUTR 298	

BUS 207

CS 270

ENGR 106, 210

MATH& 107, 131, 132, 141, 142, 146, 148, 151, 152, 153, 254, MATH 125, 215, 220, 240, 246

Social Sciences¹

ANTH& 100, ANTH& 204, ANTH& 206

BUS& 101, BUS& 201

SUDS 101

CJ 104, CJ& 101, 105, 110

ECON 105, ECON& 201, 202

EDUC 319, EDUC& 115

HIST& 117, 127, 128, 136, 137, 215, HIST 205, 214, 237, 254

OLTM 300, 445

POLS& 101, 202, 203, 204, POLS 220

PSYC& 100, 200, PSYC 150, 198, 250, 255, 298, 320

SOC& 101, 201, SOC 210, 225

1 No more than 10 credits from any one discipline will be applied to the requirements within a distribution area.

Restricted Course List

****No more than 3 PHED activity credits may be taken as electives.**

ACCT 101, 150, 241, 244, 275

AH – all courses

AMTC – all courses

BLPT—all courses

BUS 100, 104, 118, 119, 159, 165, 259, 294, BUS& 101

BTEC—all courses

COLL - all courses

CS - all courses except CS 110, 170, 175, 208, 270

DHET – all courses

DRFT—all courses

ECED – all courses except ECED& 100, 105, 120, 180, ECED 116, 117, 118, 136

EDUC – all courses except EDUC& 115, 150, 205, 319

ENGL 104

HLTH 100, 105, 110

HDEV—all courses

IT - all courses except IT 100

LIBR – all courses

MASP—all courses

MATH 105, 106

MEDA—all courses except MEDA 120

MFG—all courses

NURS—all courses

**PHED – 104, 105, 106, 110, 114, 117,
118, 120, 125, 126, 127, 128, 135, 136,
137, 138, 139, 152, 155, 204, 205, 210,
214, 215, 216, 217, 218, 220, 226, 227,
228, 235, 236, 237, 238, 246, 252

PMFG – all courses

SUDS—all courses except SUDS 101

TECH—100

WELD—all courses

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Anthropology Focus (AA-DTA).....	77
Art & Design Focus (AA-DTA).....	80
Automotive Technology (AAS).....	82
Automotive Technology (AAS-T).....	84
Automotive Technology - Maintenance and Light Repair (COP).....	86
Bioengineering & Chemical Pre-Engineering (AS-T BIO/CHEM E/MRP).....	88
Biological Sciences (Associate in Sciences - Transfer (AS-T)).....	90
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Business (Associate in Business DTA/MRP).....	94
Business - Online (Associate in Business DTA/MRP).....	97
Business Management (AAS-T).....	100
Business Management (AAS).....	102
Chemistry (AS-T).....	105
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Communication Studies Focus (AA-DTA).....	108
Community, Health, and Wellness Advocate (COC).....	111
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Computer & Electrical Pre-Engineering (AS-T COMP E EE/MRP).....	115
Computer Numerical Control (COP).....	117
Computer Science (AS-T).....	119
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Medical Office Administration (AAS).....	205
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Medical Reception (COP).....	211
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Nursing - LPN2RN eLearning (AN-DTA/MRP).....	225
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Physics (AS-T).....	238
Political Science Focus (AA-DTA).....	240
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Associate in Applied Science - Transfer (AAS-T)

Accounting Technician

for LCC BAS-OLTM

Accounting is a critical business function offering many career opportunities. Students will learn basic skills for entry-level accounting positions such as accounting technician, accounts payable and accounts receivable in private industry, state and local government, and public accounting.

The Accounting Technician program offers an introduction into taxation, computerized accounting as well as financial and managerial accounting and meets the academic requirements to apply for admittance into Lower Columbia's Bachelor of Applied Science (BAS) degree. The BAS in Organizational Leadership and Technical Management (BAS-OLTM), along with the foundation of the Accounting Technician (AAS-T) degree, prepares accounting practitioners for positions in leadership, technical management and supervision.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Accounting Technician - AAS-T (BAS-OLTM Option) (lowercolumbia.edu/program-maps/business/AAS-Accounting-Technician-to-BAS-OLTM)**

Degree Requirements

- **Communications:**
5 credits - ENGL& 101 English Composition I
- **Quantitative Skills:**
5 credits – MATH& 107 Math in Society or higher except MATH& 131
- **Human Relations / Diversity:**
5 credits – BUS 144 Management of Human Relations: DIV
- **Natural Sciences:**
5 credits – Natural Science with lab course from the Distribution List
- **Social Sciences:**
5 credits – BUS& 101 Intro to Business OR ECON& 201 Micro Economics

Program Requirements

ACCT 101	Intro to Accounting Concepts	5
ACCT 150	Payroll Accounting and Business Tax Reporting	5
ACCT& 201	Principles of Accounting I	5
ACCT& 202	Principles of Accounting II	5
ACCT& 203	Principles of Accounting III	5
ACCT 241	Intro to Quickbooks	5
ACCT 244	Individual Income Taxation	5
ACCT 275	Accounting Tech Capstone	5
ACCT 288	Cooperative Work Experience	4
BTEC 130	Electronic Calculators I	1
BTEC 131	Intro to Spreadsheets	5
BTEC 135	Advanced Data Analysis	5
BUS 100	Foundations of Business Success	3
BUS 104	Business Math Applications	5
BUS 150	Customer Service/Management	5
BUS& 201	Business Law	5
COLL 289	Employment Portfolio Seminar	1

Students must pass each course listed in Program Requirements with a 'C' or above.

One of the following 5 credit courses may be substituted for ACCT 288/COLL 289 with program advisor permission:

ECON& 202	Macro Economics	5
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Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 99 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.

Students completing this program should acquire the following skills and abilities:

- Demonstrate competency in performing all steps in the accounting cycle, individual taxation, managerial accounting, and payroll processing. (GS)
- Apply foundational accounting concepts. (GS)
- Display effective problem solving and decision-making skills within the different accounting fields. (GS)
- Demonstrate proficiency in the utilization of common accounting software tools, including, but not limited to, the following: QuickBooks, Microsoft-Access, and Microsoft-Excel.
- Recognize the commitment to lifelong learning required of those in the accounting profession.
- Apply the use of customer service skills in business environments. (GS)
- Demonstrate familiarity with Contract Law and the Uniform Commercial Code. (GS)
- Communicate business, financial and accounting information to appropriate constituents. (GS)

Revised May 2023 (effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Associate in Applied Science (AAS)

Accounting Technician

Provides skills for entry-level accounting positions such as accounting technician, accounts payable, accounts receivable in private industry, state, and local government.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Accounting Technician - AAS (lowercolumbia.edu/program-maps/business/AAS-Accounting-Technician)**

Degree Requirements

- **Communications:**
5 credits - ENGL& 101 English Composition I OR BUS 119 Business Communications
- **Quantitative Skills:**
5 credits – BUS 104 Business Math

• **Social Sciences/Diversity:**

5 credits – BUS 144 Management of Human Relations: DIV.

• **Humanities or Natural Sciences:**

5 credits – from the Distribution List

Program Requirements

ACCT 101	Intro to Accounting Concepts	5
ACCT 150	Payroll Accounting/Bus Tax Reporting	5
ACCT& 201	Principles of Accounting I	5
ACCT& 202	Principles of Accounting II	5
ACCT& 203	Principles of Accounting III	5
ACCT 241	Intro to QuickBooks	5
ACCT 244	Individual Income Taxation	5
ACCT 275	Accounting Tech Capstone	5
ACCT 288	Cooperative Work Experience	4
BUS& 101 OR ECON& 201 OR ECON 105	Intro to Business OR Micro Economics OR Intro to Economics	5
BUS 100	Foundations of Business Success	3
BUS 150	Customer Service/Management	5
BUS& 201	Business Law	5
BTEC 130	Electronic Calculators I	1
BTEC 131	Intro to Spreadsheets	5
BTEC 135	Advanced Data Analysis	5
COLL 289	Employment Portfolio Seminar	1

One of the following 5 credit courses may be substituted for ACCT 288/COLL 289 with program advisor, permission:

CMST& 220	Public Speaking	5
CMST& 230	Small Group Communication	5

ECON& 202	Macro Economics	5
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Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 94 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.

Students completing this program should acquire the following skills and abilities:

- Demonstrate competency in performing all steps in the accounting cycle, individual taxation, managerial accounting, and payroll processing. (GS)
- Apply foundational accounting concepts. (GS)
- Display effective problem solving and decision-making skills within the different accounting fields. (GS)
- Demonstrate proficiency in the utilization of common accounting software tools, including, but not limited to, the following: QuickBooks, Microsoft-Access, and Microsoft-Excel.
- Recognize the commitment to lifelong learning required of those in the accounting profession.
- Apply the use of customer service skills in business environments. (GS)
- Demonstrate familiarity with Contract Law and the Uniform Commercial Code. (GS)
- Communicate business, financial and accounting information to appropriate constituents. (GS)

Revised December 2020 (effective Fall 2021)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Associate in Applied Science - Transfer (AAS-T)

Administrative Services Manager for LCC BAS-OLTM

Administrative professionals must possess knowledge of business principles, day-to-day operations, leadership, and interpersonal skills. Administrative professionals are responsible for managing communication and information using appropriate business technology tools. They are often tasked with customer service, project management,

analysis and reporting of business data, budgeting, and technical expertise with Internet commerce and social media tools as a means for marketing. Administrative professionals must also be able to collaborate and effectively work in a team environment. This program meets the academic requirements to apply for admittance into Lower Columbia's Bachelor of Applied Science degree in Organizational Leadership and Technical Management which prepares administrative professionals for positions in leadership, technical management and supervision.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Administrative Services Manager - AAS-T (BAS-OLTM Option) (lowercolumbia.edu/program-maps/business/AAST-Administrative-Services-Manager-to-BAS-OLTM)**

Degree Requirements

- **Communications:**
5 credits - ENGL& 101 English Composition I
- **Quantitative Skills:**
5 credits – MATH& 107 Math in Society or higher with the exception of MATH& 131
- **Human Relations / Diversity:**
5 credits – BUS 144 Management of Human Relations: DIV
- **Natural Sciences:**
5 credits – Natural Science with a lab from the Distribution List
- **Social Science:**
5 credits - BUS& 101 Intro to Business

Program Requirements

ACCT 101 <i>OR</i> ACCT 135	Intro to Accounting Concepts <i>OR</i> Accounting for Non-Accountants	5
BUS 100	Foundations of Business Success	3
BUS 150	Customer Service/Management	5
BUS 264	Principles of Marketing	5
BUS 270	Intro to Project Management	5
BTEC 104	Intro to Business Technology	5

BTEC 111	Word Processing I	5
BTEC 112	Word Processing II	5
BTEC 131	Introduction to Spreadsheets	5
BTEC 135	Advanced Data Analysis	5
BTEC 148	Intro to Outlook	2
BUS 294	Career Success	2
ENGL& 235	Technical Writing	5
IT 111	Intro to Windows	4
IT 230	Database Development	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 91 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to a business- or business-related work environment (GS Communication)
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS Critical Thinking)
- Apply mathematical information to perform tasks in business and information technology work environments (GS Numeracy/Quantitative Literacy)
- Interact effectively with individuals and groups (GS Interpersonal Relations)
- Demonstrate proficiency and effectiveness in the use of business technology tools
- Communicate professionally in writing, speaking, and electronic formats as appropriate to a business- or business-related work environment (GS)
- Apply mathematical information to perform tasks in business and information technology for analyzing and presenting data (GS)
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS)
- Demonstrate proficiency in project management
- Demonstrate ethical decision-making
- Demonstrate competency in business principles such as marketing, interpersonal skills, and presentation

Revised May 2023 (Effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Associate in Applied Science (AAS)

Administrative Services Manager

Administrative professionals must possess knowledge of business principles, day-to-day operations, leadership, and interpersonal skills. Administrative professionals are responsible for managing communication and information using appropriate business technology tools. They are often tasked with customer service, project management, analysis and reporting of business data, budgeting, and technical expertise with Internet commerce and social media tools as a means for marketing. Administrative professionals must also be able to collaborate and effectively work in a team environment.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Administrative Services Manager - AAS (lowercolumbia.edu/program-maps/business/AAS-Administrative-Services-Manager)**

Degree Requirements

- **Communications:**
5 credits - ENGL& 101 English Composition I.
- **Quantitative Skills:**
5 credits – BUS 104 Business Math Applications.
- **Humanities:**
5 credits – BUS 144 Management of Human Relations:DIV recommended.
- **Natural Sciences:**
5 credits – choose from the Distribution List. CMST& 220 Public Speaking OR CMST& 230 Small Group Communication recommended.
- **Electives:**
1-5 credits from ACCT, BTEC, BUS, CS, IT or choose from the Distribution List.

Program Requirements

ACCT 101 OR ACCT 135	Intro to Accounting Concepts OR Accounting for Non-Accountants	5
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BUS 100	Foundations of Business Success	3
BUS& 101	Intro to Business	5
BUS 150	Customer Service/ Management	5
BUS 264	Principles of Marketing	5
BUS 270	Intro to Project Management	5
BTEC 104	Intro to Business Technology	5
BTEC 111	Word Processing I	5
BTEC 112	Word Processing II	5
BTEC 131	Introduction to Spreadsheets	5
BTEC 135	Advanced Data Analysis	5
BTEC 148	Intro to Outlook	2
BUS 294	Career Success	2
ENGL& 235	Technical Writing	5
IT 111	Intro to Windows	4
IT 230	Database Development	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 92-96 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to a business- or business-related work environment (GS Communication)
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS Critical Thinking)
- Apply mathematical information to perform tasks in business and information technology work environments (GS Numeracy/Quantitative Literacy)
- Interact effectively with individuals and groups (GS Interpersonal Relations)
- Demonstrate proficiency and effectiveness in the use of business technology tools

- Communicate professionally in writing, speaking, and electronic formats as appropriate to a business- or business-related work environment (GS)
- Apply mathematical information to perform tasks in business and information technology for analyzing and presenting data (GS)
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS)
- Demonstrate proficiency in project management
- Demonstrate ethical decision-making
- Demonstrate competency in business principles such as marketing, interpersonal skills, and presentation

Revised December 2021 (Effective Summer 2022)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Certificate of Proficiency (COP)

Administrative Support

Administrative support professionals are responsible for performing and coordinating a wide range of activities, managing information flow, providing excellent customer service, and operating and maintaining a wide variety of office equipment. Organizations in a wide variety of industries, including the health care field and medical offices, rely on skilled administrative support staff to keep operations running efficiently and effectively.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Administrative Support - COP (lowercolumbia.edu/program-maps/business/COP-Administrative-Support)**

Certificate Requirements

- **Communications:**
5 credits - ENGL& 101 English Composition I OR BUS 119 Business Communications.
- **Quantitative Skills:**
5 credits – BUS 104 Business Math Applications OR MATH 88/98 Pre-College Math II/ III OR 5 credits of a higher level math course.
- **Human Relations/Social Science:**
5 credits – BUS 144 Management of Human Relations: DIV recommended.

Program Requirements

BUS 100	Foundations of Business Success	3
BUS 294	Career Success	2
BTEC 104	Intro to Business Technology	5
BTEC 111	Word Processing I	5
BTEC 112	Word Processing II	5
BTEC 131	Intro to Spreadsheets	5
BTEC 148	Intro to Outlook	2
BTEC 230	Electronic Calculators II	2
IT 111	Intro to Windows	4
Electives	ACCT, BTEC, BUS, BTEC, CS, IT or distribution list	1-5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this certificate: 49-53

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to a business-or business-related work environment (GS Communication)
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS Critical Thinking)
- Apply mathematical information to perform tasks in business and information technology to work environments (GS Numeracy/Quant. Literacy)
- Interact effectively with individuals and groups (GS Interpersonal Relations)
- Demonstrate proficiency in the use of business equipment, computer software, and technology
- Create and manage business documents, spreadsheets, and databases
- Demonstrate competency in records management
- Demonstrate proficiency in organizational skills and assigning priority
- Demonstrate ethical decision-making

Revised December 2021 (Effective Summer 2022)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Associate in Applied Science - Transfer (AAS-T)

Advanced Manufacturing for LCC BAS-OLTM

Manufacturing industries are in need of skilled production operators and technicians with up-to-date, 21st century skills. Industries that make products from metal, plastics, wood and other materials, as well as those producing solar panels, biofuels, energy, petrochemicals, pharmaceuticals, food, semiconductors, and a host of other traditional and "green" products need employees capable of running and servicing sophisticated machinery. In addition, workers in these industries must understand and practice principles aimed at maintaining safety, improving quality, eliminating waste, and reducing or eliminating the impact of operations on the environment. This program also meets the degree in Organizational Leadership and Technical Management which prepares industry professionals for positions in leadership, management and supervision.

Degree Requirements

- **Communications:**
5 credits – ENGL& 101 English Composition I
- **Quantitative Skills:**
5 credits – MATH& 107 Math in Society or higher except for MATH& 131
- **Natural Sciences:**
5 credits – Natural Science with lab from the Distribution List
- **Diversity / Human Relations:**
5 credits – BUS 144 Management of Human Relations: DIV

Core Program Requirements

COLL 289	Employment Portfolio Seminar	1
CS 110	Introduction to Microcomputer Applications	3
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1

MFG 105	Industrial Safety	3
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In addition to the core program requirements, students must select two options from the following areas of study:

Production Technician (39 credits)

MFG 120	Quality Assurance	4
MFG 140	Applied Hydraulics	4
PMFG 110	Industrial and Predictive Maintenance Fundamentals	5
PMFG 150	Electrical and Electronic Fundamentals	6
PMFG 151	Process Control Equipment	5
PMFG 154	Fundamentals of Instrumentation and PLCs	5
PMFG 201	Electrical Control Equipment	3
PMFG 202	Electric Motors	2
PMFG 210	Advanced Industrial Maintenance	5

Multicraft Trades (33 credits)

BLPT 150 <i>OR</i> BLPT 160	Machinists Blueprint Reading <i>OR</i> Blueprint Reading for Welders	5
MASP 107 <i>AND/OR</i> MASP 111	Machining for Related Occupations (2-6 variable) Machine Shop I (2-10 variable for a combined total of 10 credits)	10
MFG 115	Manufacturing Processes	5
MFG 288	Cooperative Work Experience	2*
TECH 100	Advanced Principles of Technology	5

WELD 105	Related Welding	6
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Engineering Technician (30 credits)

BLPT 150 OR BLPT 160	Machinists Blueprint Reading OR Blueprint Reading for Welders	5
BTEC 131	Introduction to Spreadsheets	5
ENGR& 121	Engineering Graphics I	3
ENGR& 122	Engineering Graphics II	3
ENGR& 123	Engineering Graphics III	3
MFG 130	Materials Science	5
MFG 230	Computer Integrated Manufacturing	4
MFG 288	Cooperative Work Experience	2*

*MFG 299 Independent Study may be substituted for MFG 288 with faculty program advisor permission.

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: minimum of 91-100 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to an industrial technology work environment (GS Communication).
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS Critical Thinking).
- Apply mathematical information to perform tasks in industrial technology (GS Numeracy/Quantitative Literacy).
- Interact effectively with individuals and groups (GS Interpersonal Relations).
- Display work appropriate behavior including positive attitude, timeliness and teamwork.
- Apply industry standard safety and hazardous material handling guidelines.

- Apply knowledge of computer programs to create professional, academic, or business documents following current industry standards.
- Describe a variety of manufacturing techniques and components common to manufacturing systems.
- Perform basic machining and welding techniques.
- Interpret blueprints, diagrams and schematics associated with various manufacturing processes.
- Describe basic concepts related to mechanical, hydraulic/pneumatic, instrumentation and electrical systems
- Describe basic process control strategies.
- Perform entry-level maintenance tasks common in manufacturing operations.
- Demonstrate competency in documenting and communicating work performed using trade specific language.
- Apply knowledge of the properties of industrial influence and the selection of primary materials and conversion into useful products.
- Describe various approaches used to ensure quality in manufacturing operations.

Revised May 2023 (Effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements.

Associate in Applied Science (AAS)

Advanced Manufacturing Technology

Manufacturing industries are in need of skilled production operators and technicians with up-to-date, 21st century skills. Industries that make products from metal, plastics, wood and other materials, as well as those producing solar panels, biofuels, energy, petrochemicals, pharmaceuticals, food, semiconductors, and a host of other traditional and "green" products need employees capable of running and servicing sophisticated machinery. In addition, workers in these industries must understand and practice principles aimed at maintaining safety, improving quality, eliminating waste, and reducing or eliminating the impact of operations on the environment.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Advanced Manufacturing Technology - AAS (Engineering Technician and Multicraft Trades Option) (lowercolumbia.edu/program-maps/trades/AAS-Advanced-Manufacturing-Technology-Engineering-Tech-Multicraft-Trades)**

- **Advanced Manufacturing Technology - AAS (Multicraft Trades and Production Technician Option)** (lowercolumbia.edu/program-maps/trades/AAS-Advanced-Manufacturing-Technology-Multicraft-Trades-Production-Tech)
- **Advanced Manufacturing Technology - AAS (Production Technician and Engineering Technician Option)** (lowercolumbia.edu/program-maps/trades/AAS-Advanced-Manufacturing-Technology-Production-Tech-Engineering-Tech)

Degree Requirements

- **Communications:**
5 credits – ENGL& 101 English Composition I OR ENGL 110 Industrial Communication (ENGL 110 recommended)
- **Quantitative Skills:**
5 credits – MATH 106 Industrial Mathematics
- **Natural Sciences:**
5 credits – DHET 240 Fluid Power/Electrical Theory and Design OR TECH 100 Advanced Principles of Technology OR MFG 130 Materials Science OR choose from the Distribution List
- **Diversity / Human Relations:**
5 credits – BUS 144 Management of Human Relations: DIV

Core Program Requirements

HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
MFG 105	Industrial Safety	3
COLL 289	Employment Portfolio Seminar	1
CS 110	Introduction to Microcomputer Applications	3

In addition to the core program requirements, students must select two options from the following areas of study:

Production Technician (39 credits)

MFG 120	Quality Assurance	4
MFG 140	Applied Hydraulics	4
PMFG 110	Industrial and Predictive Maintenance Fundamentals	5
PMFG 150	Electrical and Electronic Fundamentals	6

PMFG 151	Process Control Equipment	5
PMFG 154	Fundamentals of Instrumentation and PLCs	5
PMFG 201	Electrical Control Equipment	3
PMFG 202	Electric Motors	2
PMFG 210	Advanced Industrial Maintenance	5

Multicraft Trades (33 credits)

BLPT 150 <i>OR</i> BLPT 160	Machinists Blueprint Reading <i>OR</i> Blueprint Reading for Welders	5
MASP 107 <i>AND/OR</i> MASP 111	Machining for Related Occupations <i>AND/OR</i> Machine Shop I (2-10 variable for a combined total of 10 credits)	10
MFG 115	Manufacturing Processes	5
MFG 288	Cooperative Work Experience	2*
TECH 100	Advanced Principles of Technology	5
WELD 105	Related Welding	6

Engineering Technician (30 credits)

BLPT 150 <i>OR</i> BLPT 160	Machinists Blueprint Reading <i>OR</i> Blueprint Reading for Welders	5
BTEC 131	Introduction to Spreadsheets	5
ENGR& 121	Engineering Graphics I	3
ENGR& 122	Engineering Graphics II	3
ENGR& 123	Engineering Graphics III	3

MFG 130	Materials Science	5
MFG 230	Computer Integrated Manufacturing	4
MFG 288	Cooperative Work Experience	2*

*MFG 299 Independent Study may be substituted for MFG 288 with faculty program advisor permission.

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: minimum of 91-100 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to an industrial technology work environment (GS Communication).
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS Critical Thinking).
- Apply mathematical information to perform tasks in industrial technology (GS Numeracy/Quantitative Literacy).
- Interact effectively with individuals and groups (GS Interpersonal Relations).
- Display work appropriate behavior including positive attitude, timeliness and teamwork.
- Apply industry standard safety and hazardous material handling guidelines.
- Apply knowledge of computer programs to create professional, academic, or business documents following current industry standards.
- Describe a variety of manufacturing techniques and components common to manufacturing systems.
- Perform basic machining and welding techniques.
- Interpret blueprints, diagrams and schematics associated with various manufacturing processes.
- Describe basic concepts related to mechanical, hydraulic/pneumatic, instrumentation and electrical systems
- Describe basic process control strategies.
- Perform entry-level maintenance tasks common in manufacturing operations.
- Demonstrate competency in documenting and communicating work performed using trade specific language.
- Apply knowledge of the properties of industrial influence and the selection of primary materials and conversion into useful products.
- Describe various approaches used to ensure quality in manufacturing operations.

Revised April 2021 (Effective Fall 2021)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements.

Associate in Arts - Direct Transfer Agreement (AA-DTA)

Anthropology Focus

Anthropology is the study of human biological, cultural and social diversity. With an emphasis upon a comparative perspective, anthropology studies the human condition on a global scale and throughout the course of human history. Within the discipline of anthropology, the four fields of study are biological anthropology (human evolution), cultural anthropology, archaeology and anthropological linguistics. Prepare for advanced studies in anthropology at a baccalaureate institution and eventual employment in government agencies or academic profession. Employment most often requires completion of post-graduate degree.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Anthropology - AA-DTA (lowercolumbia.edu/program-maps/social-science/AADTA-Anthropology)**

Degree Requirements

- **Communications:**

15 credits - ENGL& 101 English Composition I AND ENGL& 102 Composition II, AND CMST& 220 (was SPCH 110) Public Speaking OR CMST& 230 (was SPCH 114) Small Group Communication.

- **Quantitative / Symbolic Reasoning Skills:**

5 credits - MATH& 107 or higher with the exception of MATH& 131.

- **Humanities:**

15 credits – Selected from at least two disciplines on the Distribution List. No more than 5 credits in foreign language at the 100 level, no more than 10 credits from any one discipline. No more than 5 credits in performance/skills courses are allowed. HIST& 126 and PHIL& 101 and 5 additional credits from another Humanities discipline are recommended.

- **Natural Sciences:**

15 credits – Selected from at least two disciplines on the Distribution List; must include 5 credits of lab courses. At least 10 credits in physical, biological and/or earth sciences. No more than 5 credits from Computer Science, Mathematics, and Engineering. Courses used to satisfy this requirement may not be used to satisfy the Quantitative Skills

requirement. ANTH& 205, BIOL& 100 and 5 additional credits from physical and/or earth science are recommended. BIOL& 100 meets the laboratory requirement.

- **Social Sciences:**

15 credits – Selected from at least two disciplines on the Distribution List. No more than 10 credits from any one discipline. ANTH& 206, HIST& 127, and SOC& 101 are recommended.

- **Diversity:**

5 credits – from the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title.

- **Electives:**

25 credits - See advisor for approved list of electives. No more than 15 credits may be taken from the Restricted Course List on the Distribution List.

Recommended Electives

ART 227	History of Western Art II:DIV	5
BIOL 150	Human Genetics & Society	5
ENVS& 100	Survey of Environmental Science	5
SOC 225	Race and Ethnicity:DIV	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Minimum transferable credits required to earn this degree: 90 in courses numbered 100 or above with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

Students completing this program should acquire the following skills and abilities:

AA DTA Outcomes

Upon the completion of the AA DTA, students will be prepared for transfer to a four-year institution for the student's intended career pathway, and have the following skills and abilities:

Global Skills (assessed at degree level):

- **Communication:** Express ideas and information in writing and speaking in a manner that is clear and appropriate to the audience, and read and listen effectively.

- Critical thinking: Apply objective, valid methods of inquiry and problem-solving to draw rational, ethical, and coherent conclusions.
- Interpersonal relations: Interact effectively with individuals and/or within groups.
- Numeracy: Achieve competency with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills in practical and abstract contexts.

General education outcomes (assessed at course level):

- Diversity: Examine the causes and expressions of difference, power, and discrimination.
- Humanities: Explore how people process, document, and express their social and cultural experience.
- Social Science: Examine society, behavior, and relationships among individuals within a society.
- Natural Science: Develop familiarity with various aspects of the physical world and scientific explanations of observed phenomena.

Area of study outcomes:

- Gain a basic introduction to scientific reasoning as it applies to study of human evolution.
- Gain a basic understanding of human beings as an aspect of the natural world and their interaction with the physical environment.
- Gain a basic understanding of humans as a product of the contingencies of natural history with no more significance than any other species.
- Gain a basic understanding of the history of scholarship which serves as foundation of modern cosmology and anthropological thought.
- Achieve an appreciation of the diversity of cultures and the role it plays in determining human behavior.
- Gain a comprehension of the nature of human language.
- Gain a comprehension of the nature of human societies.
- Develop the ability to apply the notion of relativism to the understanding of religion, values, world views, ideology and the concept of human nature.
- Develop a conceptual understanding of the basic issues of multiculturalism.
- Develop an informed understanding of the basic issues of class, ethnicity, race, gender, and religion as cultural constructs.

Revised August 2022 (Effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements. Most four-year universities require one year of a single foreign language as a graduation requirement.

Associate in Arts - Direct Transfer Agreement (AA-DTA)

Art & Design Focus

At LCC, students may select beginning and advanced courses in a variety of artistic media, including design, drawing, ceramics, graphic design, painting and photography. A solid base in studio art combined with art history provides the basic liberal arts foundation essential for those interested in entering an art profession or transferring to complete a bachelor's degree in art.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Art and Design (FINE ARTS) - AA-DTA (lowercolumbia.edu/program-maps/arts/AADTA-Art-Design-Fine-Arts)**
- **Art and Design (GRAPHIC DESIGN) - AA-DTA (lowercolumbia.edu/program-maps/arts/AADTA-Art-Design-Graphic-Design)**

Degree Requirements

- **Communications:**
15 credits - ENGL& 101 English Composition I AND ENGL& 102 Composition II AND CMST& 220 Public Speaking OR CMST& 230 Small Group Communication.
- **Quantitative / Symbolic Reasoning Skills:**
5 credits – MATH& 107 or higher with the exception of MATH& 131.
- **Humanities:**
15 credits – Selected from at least two disciplines on the Distribution List. No more than 5 credits in foreign language at the 100 level, no more than 10 credits from any one discipline. No more than 5 credits in performance/skills courses are allowed.
- **Natural Sciences:**
15 credits – Selected from at least two disciplines on the Distribution List; must include 5 credits of lab courses. At least 10 credits in physical, biological and/or earth sciences. No more than 5 credits from Computer Science, Mathematics, and Engineering. Courses used to satisfy this requirement may not be used to satisfy the Quantitative Skills requirement.
- **Social Sciences:**
15 credits – Selected from at least two disciplines on the Distribution List. No more than 10 credits from any one discipline.
- **Diversity:**
5 credits – From the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title. Example: ART& 100 – Art Appreciation:DIV.
- **Electives:**
25 credits - No more than 15 credits may be taken from the Restricted Course List on the Distribution List .

Recommended Electives

ART 101	Beginning Drawing	3
ART 106	Two-Dimensional Design	5
ART 111	Beginning Painting	3
ART 121	Intro to Digital Imaging and Illustration	5
ART 131	Intro to Graphic Design	5
ART 141	Beginning Ceramics	3
ART 151	Introduction to Digital Photography	5
ART 200	Arts Portfolio Website Design	3
ART 226	History of Western Art I	5
ART 227	History of Western Art II:DIV	5
ART 228	History Western Art III:DIV	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total transferable credits required to earn this degree: 90 in courses numbered 100 or above with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

Students completing this program should acquire the following skills and abilities:

AA DTA Outcomes

Upon the completion of the AA DTA, students will be prepared for transfer to a four-year institution for the student's intended career pathway, and have the following skills and abilities:

Global Skills (assessed at degree level):

- Communication: Express ideas and information in writing and speaking in a manner that is clear and appropriate to the audience, and read and listen effectively.
- Critical thinking: Apply objective, valid methods of inquiry and problem-solving to draw rational, ethical, and coherent conclusions.
- Interpersonal relations: Interact effectively with individuals and/or within groups.

- **Numeracy:** Achieve competency with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills in practical and abstract contexts.

General education outcomes (assessed at course level):

- **Diversity:** Examine the causes and expressions of difference, power, and discrimination.
- **Humanities:** Explore how people process, document, and express their social and cultural experience.
- **Social Science:** Examine society, behavior, and relationships among individuals within a society.
- **Natural Science:** Develop familiarity with various aspects of the physical world and scientific explanations of observed phenomena.

Area of study outcomes:

- Graduates will apply artistic skills and knowledge along with historical and cultural competency to demonstrate effective communication of visual ideas in art and design.

Revised June 2023 (Effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor *and* with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements.

Most four-year universities require one year of a single foreign language as a graduation requirement.

Associate in Applied Science (AAS)

Automotive Technology

Modern automobiles are complex machines requiring service technicians who are highly skilled and knowledgeable about mechanical, electrical, and electronic systems. The Automotive Technology program provides a strong combination of classroom theory and hands-on practice, with courses based on competencies established by the ASE Education Foundation. The LCC Automotive Technology program is certified by ASE Education Foundation, a branch of the National Institute for Automotive Service Excellence (ASE).

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Automotive Technology - AAS (lowercolumbia.edu/program-maps/trades/AAS-Automotive-Technology)**

Degree Requirements

- **Communications:**
5 credits – ENGL 110 Industrial Communications recommended
- **Quantitative / Symbolic Reasoning Skills:**
5 credits – MATH 106 Industrial Mathematics recommended
- **Human Relations / Social Science / Diversity:**
5 credits – BUS 144 Management of Human Relations:DIV meets all three of these requirements and is recommended.
- **Natural Sciences:**
5 credits – DHET 240 Fluid Power/Electrical Theory & Design OR TECH 100 Advanced Principles of Technology OR MFG 130 Materials Science OR choose from the Distribution List.

Program Requirements

AMTC 100	Essentials of Mechanics	5
AMTC 104	Automotive Electrical Systems	15
AMTC 105	Vehicle Climate Control	5
AMTC 114	Automotive Chassis	15
AMTC 124	Automotive Engines	15
AMTC 206	Fuels and Emissions	15
AMTC 207	Computer Engine Controls	15
AMTC 214	Automotive Drivetrains	15
MFG 105	Industrial Safety	3
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
COLL 289	Employment Portfolio Seminar	1
AMTC 288	Cooperative Education	2
WELD 105	Related Welding	6

A combination of the following courses, up to 9 credits, may be substituted for COLL 289, AMTC 288, and WELD 105 with program advisor permission: AMTC 299, ACCT 101 (5 cr), ACCT 135 (5 cr), BUS& 101 (5 cr), CS 110 (3 cr) or other WELD courses.

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 133 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to an industrial technology work environment (GS).
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS).
- Apply mathematical information to perform tasks in industrial technology (GS).
- Interact effectively with individuals and groups. (GS).
- Display work appropriate behavior including positive attitude, timeliness and teamwork.
- Apply knowledge of computer programs to create professional, academic, or business documents following current industry standards.
- Apply industry standard safety and hazardous material handling guidelines.
- Analyze and repair automotive systems including electrical, engines, heating, air conditioning, transmissions drivetrain, suspension, wheels, tires and brakes.
- Demonstrate competency in fluid services of automotive systems.
- Analyze automotive vehicles to diagnose cause of concern.
- Service and repair automotive engines including fuel, ignition, and computer systems.
- Locate information using a variety of automotive service information resources.

Revised December 2021 (effective Summer 2022)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements.

Associate in Applied Science - Transfer (AAS-T)

Automotive Technology for LCC BAS-OLTM

Modern automobiles are complex machines requiring service technicians who are highly skilled and knowledgeable about mechanical, electrical, and electronic systems. The Automotive Technology AAS-T program provides a strong combination of classroom theory and hands-on practice, with courses based on competencies established by the ASE Education Foundation (ASE). This program also meets the academic requirements to apply for admittance into Lower Columbia's Bachelor of Applied Science degree

in Organizational Leadership and Technical Management which prepares industry professionals for positions in leadership, management and supervision.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Automotive Technology - AAS-T (BAS-OLTM Option) (lowercolumbia.edu/program-maps/trades/AAS-Automotive-Technology-to-BAS-OLTM)**

Degree Requirements

- **Communications:**
5 credits – ENGL& 101 English Composition I
- **Quantitative Skills:**
5 credits – MATH& 107 Math in Society or higher except for MATH& 131
- **Natural Sciences:**
5 credits – Natural Science with lab from the Distribution List
- **Diversity / Human Relations:**
5 credits – BUS 144 Management of Human Relations: DIV

Program Requirements

AMTC 100	Essentials of Mechanics	5
AMTC 104	Automotive Electrical Systems	15
AMTC 105	Vehicle Climate Control	5
AMTC 114	Automotive Chassis	15
AMTC 124	Automotive Engines	15
AMTC 206	Fuels and Emissions	15
AMTC 207	Computer Engine Controls	15
AMTC 214	Automotive Drivetrains	15
MFG 105	Industrial Safety	3
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
COLL 289	Employment Portfolio Seminar	1
AMTC 288	Cooperative Education	2

AMTC 299 (3 credits) may be substituted for COLL 289 and AMTC 288 with program advisor permission.

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 127 with cumulative grade point average (GPA) of at least 2.0 in the program requirements.

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to an industrial technology work environment (GS).
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS).
- Apply mathematical information to perform tasks in industrial technology (GS).
- Interact effectively with individuals and groups. (GS).
- Display work appropriate behavior including positive attitude, timeliness and teamwork.
- Apply knowledge of computer programs to create professional, academic, or business documents following current industry standards.
- Apply industry standard safety and hazardous material handling guidelines.
- Analyze and repair automotive systems including electrical, engines, heating, air conditioning, transmissions drivetrain, suspension, wheels, tires and brakes.
- Demonstrate competency in fluid services of automotive systems.
- Analyze automotive vehicles to diagnose cause of concern.
- Service and repair automotive engines including fuel, ignition, and computer systems.
- Locate information using a variety of automotive service information resources.

Revised May 2023 (effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Certificate of Proficiency (COP)

Automotive Technology - Maintenance and Light Repair

Modern automobiles are complex machines requiring service technicians who are highly skilled and knowledgeable about mechanical, electrical, and electronic systems. The Automotive Technology program provides a strong combination of classroom theory and hands-on practice, with courses based on competencies established by the ASE Education Foundation. The LCC Automotive Technology program is certified by ASE Education Foundation, a branch of the National Institute for Automotive Service Excellence (ASE).

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Automotive Technology - COP (lowercolumbia.edu/program-maps/trades/COP-Automotive-Technology-Maintenance-Light-Repair)**

Certificate Requirements

- **Communications:**
5 credits - ENGL 110 Industrial Communication, ENGL& 101 or 102 English Comp I & II, BUS 119 Business Communications, CMST& 220 Public Speaking, CMST& 230 Small Group Communications
- **Quantitative Skills:**
5 credits - MATH 088/089 Pre-College Math II, MATH 106 Industrial Mathematics, or higher
- **Human Relations / Social Science:**
5 credits – BUS 144 Management of Human Relations.

Program Requirements

AMTC/DHET 100	Essentials of Mechanics	5
AMTC 104	Automotive Electrical Systems	15
AMTC 114	Automotive Chassis	15
AMTC 124	Automotive Engines	15
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
MFG 105	Industrial Safety	3

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this certificate: 69

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to an industrial technology work environment (GS).
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS).
- Apply mathematical information to perform tasks in industrial technology (GS).
- Interact effectively with individuals and groups (GS).

- Display work appropriate behavior including positive attitude, timeliness and teamwork.
- Apply knowledge of computer programs to create professional, academic, or business documents following current industry standards.
- Apply industry standard safety and hazardous material handling guidelines.
- Demonstrate competency in inspection and service of automotive systems including electrical, engines, heating, air conditioning, transmissions drivetrain, suspension, wheels, tires and brakes.
- Demonstrate competency in fluid services of automotive systems.

Revised March 2021 (Effective Fall 2021)

Notes:

Consult an advisor if you have any questions.

AS-T BIO/CHEM E/MRP

Bioengineering & Chemical Pre-Engineering

Complete basic background studies for transfer to a bachelor's degree program in engineering disciplines. Careers may be found in research, development, design, operations management, teaching, sales and consulting.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Bioengineering and Chemical Pre-Engineering AS-T (Chemical Option) (lowercolumbia.edu/program-maps/stem/AST-Bioengineering-and-Chemical-Pre-Engineering-Chemical-Option)**
- **Bioengineering and Chemical Pre-Engineering AS-T (Bioengineering Option) (lowercolumbia.edu/program-maps/stem/AST-Bioengineering-and-Chemical-Pre-Engineering-Bioengineering-Option)**

Degree Requirements

- **Communications:**
5 credits - ENGL& 101 English Composition I.
- **Quantitative / Symbolic Reasoning Skills:**
20 credits – MATH& 151* Calculus I, MATH& 152* Calculus II, MATH& 153* Calculus III, AND MATH 240 Differential Equations.
- **Humanities/ Social Sciences:**
15 credits – minimum 5 credits in Humanities, minimum 5 credits in Social Science, plus an additional 5 credits in either Humanities or Social Science from the Distribution List. ECON& 201 or 202 recommended.

- **Diversity:**

5 credits – from the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by ‘DIV’ attached to the course title. Example: SOC& 101 – Introduction to Sociology:DIV.

- **Electives:**

5 credits minimum – select electives with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student plans to attend.

Pre-Major Requirements (40 credits)

CHEM& 161*	General Chemistry w/Lab I	5
CHEM& 162*	General Chemistry w/Lab II	5
CHEM& 163*	General Chemistry w/Lab III	5
CHEM& 261*	Organic Chemistry w/Lab I	5
BIOL& 221*	Majors Ecology/Evolution: w/Lab OR	5
CHEM& 262*	Organic Chemistry w/Lab II	
PHYS& 221*	Engr Physics I w/Lab	5
PHYS& 222*	Engr Physics II w/Lab	5
PHYS& 223*	Engr Physics III w/Lab	5

Electives

BIOL& 221*	Majors Ecology/Evolution: w/Lab	5
BIOL& 222*	Majors Cell/Molecular: w/ Lab	5
CHEM& 262*	Organic Chemistry w/Lab II	5
CHEM& 263*	Organic Chemistry w/Lab III	5
CS 170	Computer Programming	5
ENGL& 235	Technical Writing	5
ENGR& 204	Electrical Circuits	6
ENGR& 224	Thermodynamics	5
MATH& 254*	Calculus IV	5
(was MATH 154)		
MATH 220	Linear Algebra	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

*It is recommended that sequence courses be completed at one institution.

Total transferable credits required to earn this degree: 90 with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

Students completing this program should acquire the following skills and abilities:

- Demonstrate the ability to use foundational knowledge in mathematics, physics, chemistry, and biology.
- Design and conduct experiments.
- Make measurements, analyze data, and interpret results.
- Problem solving, team, self-assessment and lifelong learning skills.
- Communicate effectively.

Revised June 2019 (Effective Fall 2019)

Notes:

Baccalaureate institutions party to this agreement are: UW Seattle, WSU, EWU, Gonzaga U, St. Martin's U, Seattle Pacific U, Seattle U and Walla Walla U.

Additional general educational requirements, cultural diversity requirements, and foreign language requirements, as required by the receiving institution, must be met prior to the completion of a baccalaureate degree.

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor *and* with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements.

Most four-year universities require one year of a single foreign language as a graduation requirement.

Associate in Science - Transfer (AS-T)

Biological Sciences

The biological sciences study living organisms and fundamental life processes that form the basis for careers in healthcare, research, teaching and related fields. Begin studies toward a bachelor's degree in general or molecular biology, botany, ecology, fisheries, genetics, marine science, soil science, wildlife management or zoology.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Biological Sciences - AS-T** (lowercolumbia.edu/program-maps/stem/AST-Biological-Sciences)

Degree Requirements

- **Communications:**
5 credits - ENGL& 101 English Composition I.
- **Quantitative / Symbolic Reasoning Skills:**
10 credits – MATH& 151* Calculus I AND MATH& 152* Calculus II.
- **Humanities and Social Sciences:**
15 credits – Selected from at least three disciplines on the Distribution List. A minimum of 5 credits in Humanities, and a minimum of 5 credits in Social Science, and an additional 5 credits in either Humanities or Social Science.
- **Diversity:**
5 credits – From the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title.

Pre-Major Requirements

BIOL& 221*	Majors Ecology/Evolution: w/Lab	5
BIOL& 222*	Majors Cell/Molecular: w/Lab	5
BIOL& 223*	Majors Organismal Phys: w/Lab	5
CHEM& 161*	General Chemistry w/Lab I	5
CHEM& 162*	General Chemistry w/Lab II	5
CHEM& 163*	General Chemistry w/Lab III	5
CHEM& 261*	Organic Chemistry w/Lab I	5
CHEM& 262*	Organic Chemistry w/Lab II	5
MATH& 146	Introduction to Statistics OR	5
MATH& 153*	Calculus III	

Suggested Electives

BIOL& 260	Microbiology	5
CHEM& 263*	Organic Chemistry w/Lab III	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total transferable credits required to earn this degree: 90 with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

Students completing this program should acquire the following skills and abilities:

- Biology students will become familiar with the (empirical) scientific method of problem solving.
- Majors-level biology students will perform competitively with their peers at four-year institutions or professional programs.
- Majors-level biology students will demonstrate proficiency with life process mechanisms such as biological chemistry; cellular metabolism; heredity, anatomy and physiology of major animal organ systems; plant structure, as well as transport and reproductive function; diversity and classification of organisms; evolution; and ecology.
- Biology students will express ideas and information in writing in a format that is clear and appropriate to a science-literate audience.
- Biology students will apply various techniques and processes using information, data, and situations, to draw logical, rational and ethical and coherent conclusions.
- Major-level Biology students will achieve competency with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills in practical and abstract contexts.

Revised August 2022 (Effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor *and* for checking specific major requirements of baccalaureate institutions in the year prior to transferring. Consult the LCC catalog for LCC graduation requirements.

Most four-year universities require one year of a single foreign language as a graduation requirement.

Associate in Biology DTA/MRP

Biology

This pathway is applicable to students planning to prepare for upper division Bachelor's degree majors in Biology, including the medical field. This Biology MRP streamlines and facilitates preparation for upper division coursework in Biology across the state. Students planning a career in medicine, medical technology, dentistry, chiropractic,

pharmacy, physical therapy or veterinary can begin their studies at LCC and gain a solid foundation in the basic sciences required in those fields.

Careers in medical professions require several years of advanced study. Medical coursework is rigorous and entry into professional schools is very competitive. A number of medical schools require a foreign language.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Biology - DTA/MRP (lowercolumbia.edu/program-maps/stem/DTA-MRP-Biology)**

Degree Requirements

- **Communications:**

15 credits - ENGL& 101 English Composition I AND ENGL& 102 Composition II AND CMST& 220 (was SPCH 110) Public Speaking OR CMST& 230 (was SPCH 114) Small Group Communication.

- **Quantitative Skills:**

5 credits – MATH& 151 Calculus I

- **Humanities:**

15 credits – Selected from at least two disciplines on the Distribution List. No more than 5 credits in foreign language at the 100 level, no more than 10 credits from any one discipline. No more than 5 credits in performance/skills courses are allowed.

- **Diversity:**

5 credits - From the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by "DIV" attached to the course title. Example: SOC& 101 - Intro to Sociology: DIV.

- **Natural Sciences:**

30 credits – BIOL& 221 Majors Ecology/Evolution: w/Lab, BIOL& 222 Majors Cell/Molecular: w/Lab, BIOL& 223 Majors Organismal Phys: w/Lab, CHEM& 161 General Chem w/Lab I, CHEM& 162 General Chem w/Lab II, and CHEM& 163 General Chem w/Lab III.

- **Social Sciences:**

15 credits – Selected from at least two disciplines on the Distribution List. No more than 10 credits from any one discipline.

- **Electives:**

10 credits - See advisor for approved list of electives. No more than 15 credits may be taken from the Restricted Course List on the Distribution List.

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 90

It is recommended that sequence courses be completed at one institution.

Students completing this program should acquire the following skills and abilities:

Core Competencies*

- Apply the scientific method of problem solving.
- Use quantitative reasoning to interpret data
- Demonstrate critical thinking.
- Express ideas and information in writing in a format that is clear and appropriate to both scientific and non-scientific audiences.
- Evaluate and explain the relationship between science and society.

Core Concepts*

- Apply the concepts of evolution to the diversity and adaptation of living organisms.
- Explain how matter and energy are stored and transformed by living systems.
- Explain how information is stored, copied, transferred, and expressed in biological systems.
- Describe the structure and function of biological components at various levels.
- Describe the significance of systems in maintaining life.

*Vision and Change: A Call to Action, AAAS (American Association for the Advancement of Science) with support from NSF (National Science Foundation)

Revised May 2021 (Effective Summer 2021)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements. Most four-year universities require one year of a single foreign language as a graduation requirement.

Associate in Business DTA/MRP

Business

The Associate in Business degree program is designed for students planning to transfer to a university program in Washington. Management, accounting, marketing, finance, operations management, and human resources are some of the specializations available for those pursuing advanced studies.

Notes to students:

- You will need to have early contact with an advisor at the potential transfer institution regarding specific course choices in each area (Humanities, Social Science and Business Law or Introduction to Law) and for the electives.

- It is up to you to check with the transfer institution regarding requirements for overall minimum GPA, a higher GPA in a selected subset of courses, or a specific minimum grade in one or more courses such as math or English.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Business - AA-DTA/MRP** (lowercolumbia.edu/program-maps/business/DTA-MRP-Business)
- **Business - AA-DTA/MRP (online)** (lowercolumbia.edu/program-maps/business/DTA-MRP-Business-Online)

Degree Requirements

- **Communications:**

10 credits - ENGL& 101 English Composition I AND ENGL& 102 Composition II. Note 1: To meet the current EWU requirements, the second English Composition course must be equivalent to EWU's English 201 College Composition: Analysis, Research, and Documentation.

- **Quantitative / Symbolic Reasoning Skills:**

10 credits – MATH& 148 Business Calculus AND one of the following 5 credit courses: MATH 125 Applied College Algebra. MATH& 142 Precalculus II or a higher level math that includes calculus as a prerequisite. Intermediate Algebra proficiency required.

- **Humanities:**

15 credits – From the Distribution List. Selected from at least two disciplines. No more than 10 credits per discipline area. No more than 5 credits in world languages. No more than 5 credits in foreign language at the 100 level. No more than 5 credits of performance/skills classes are allowed. Note 2: Students intending the international business major should consult their potential transfer institutions regarding the level of world language required for admission to the major. Five credits in world languages may apply to the Humanities requirement. Note 3: Students are encouraged to include a speech or oral communication course (not small group communication).

- **Diversity:**

5 credits - From the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by "DIV" attached to the course title. Example: SOC& 101 - Intro to Sociology:DIV.

- **Natural Sciences:**

15 credits – MATH 246 Probability and Statistics AND 10 additional credits in physical, biological and/or earth science, including at least one lab course, from the Distribution List. No more than 10 credits allowed in any one discipline. Note 4: Students intending the manufacturing management major at WWU should consult WWU regarding the selection of natural science courses required for admission to the major.

- **Social Sciences:**

15 credits – ECON& 201 Micro Economics AND ECON& 202 Macro Economics AND an additional 5 credits of Social Science from the Distribution List for Transfer Degrees.

- **Electives:**

5 credits of non-business electives except as noted below: Note 6: Five institutions have requirements for admission to the major that go beyond those specified above. Students can meet these requirements by careful selection of the elective University Course Equivalent to:

- WSU (all campuses): Management Information Systems MIS 250
- Gonzaga: Management Information Systems BMIS 235
- PLU: Computer Applications CSCE 120, either an equivalent course or skills test
- SPU: Spreadsheets (BUS 1700), either an equivalent course or skills test
- WWU: Introduction to Business Computer Systems MIS 220 (for transfer students entering fall 2014)

Business Courses (20 credits)

ACCT& 201*	Principles of Accounting I	5
ACCT& 202*	Principles of Accounting II	5
ACCT& 203*	Principles of Accounting III	5
BUS& 201	Business Law	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total transferable credits required to earn this degree: 90 with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

*It is recommended that sequence courses be completed at one institution.

Universities with a lower division Business Law requirement: UW (all campuses), WSU (all campuses), EWU, CWU, WWU, Gonzaga, SMU, SPU, Whitworth.

The following institutions do not require a *lower division* Business Law course and agree to accept the course taken as part of this degree as a lower division elective, but generally not as an equivalent to the course required at the upper division: Heritage, PLU, SU, and Walla Walla University.

Note 5: International students who completed a business law course specific to their home country must take a business law course at a U.S. institution in order to demonstrate proficiency in U.S. business law.

Students completing this program should acquire the following skills and abilities:

- Develop an understanding of market economies, supply and demand, cost benefit principles, resource allocation and key microeconomic terms.
- Analyze macroeconomic theories, fiscal and monetary policy, the banking system and Federal Reserve, factors affecting economic growth and international trade and finance.

- Apply a variety of mathematical and statistical procedures to accounting, business, and economic data and interpret the results to arrive at informed business decisions.
- Demonstrate an understanding of our legal system, the importance of contractual relationships, and the ethical implications of business transactions.
- Work effectively in collaborative/team environments to solve problems and complete projects.
- Develop skills utilizing common technological tools to conduct research and solve problems.
- Demonstrate the ability to use accounting and business terminology effectively in oral and written communication.
- Analyze and record business transactions in accordance with Generally Accepted Accounting Principles, communicate financial information about an organization and financial statement analysis.

Revised March 2019 (Effective Summer 2019)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements. Most four-year universities require one year of a single foreign language as a graduation requirement.

Associate in Business DTA/MRP

Business - Online

The Associate in Business degree program is designed for students planning to transfer to a university program in Washington. Management, accounting, marketing, finance, operations management, and human resources are some of the specializations available for those pursuing advanced studies.

Notes to students:

- You will need to have early contact with an advisor at the potential transfer institution regarding specific course choices in each area (Humanities, Social Science and Business Law or Introduction to Law) and for the electives.
- It is up to you to check with the transfer institution regarding requirements for overall minimum GPA, a higher GPA in a selected subset of courses, or a specific minimum grade in one or more courses such as math or English.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Business - AA-DTA/MRP (online) (lowercolumbia.edu/program-maps/business/DTA-MRP-Business-Online)**

Degree Requirements

- **Communications:**

10 credits - ENGL& 101 English Composition I AND ENGL& 102 Composition II. Note 1: To meet the current EWU requirements, the second English Composition course must be equivalent to EWU's English 201 College Composition: Analysis, Research, and Documentation.

- **Quantitative / Symbolic Reasoning Skills:**

10 credits – MATH& 148 Business Calculus AND one of the following 5 credit courses: MATH 125 Applied College Algebra. MATH& 142 Precalculus II or a higher level math that includes calculus as a prerequisite. Intermediate Algebra proficiency required.

- **Humanities:**

15 credits – From the Distribution List. Selected from at least two disciplines. No more than 10 credits per discipline area. No more than 5 credits in world languages. No more than 5 credits in foreign language at the 100 level. No more than 5 credits of performance/skills classes are allowed. Note 2: Students intending the international business major should consult their potential transfer institutions regarding the level of world language required for admission to the major. Five credits in world languages may apply to the Humanities requirement. Note 3: Students are encouraged to include a speech or oral communication course (not small group communication).

- **Diversity:**

5 credits - From the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by "DIV" attached to the course title. Example: SOC& 101 - Intro to Sociology:DIV.

- **Natural Sciences:**

15 credits – MATH 246 Probability and Statistics AND 10 additional credits in physical, biological and/or earth science, including at least one lab course, from the Distribution List. No more than 10 credits allowed in any one discipline. Note 4: Students intending the manufacturing management major at WWU should consult WWU regarding the selection of natural science courses required for admission to the major.

- **Social Sciences:**

15 credits – ECON& 201 Micro Economics AND ECON& 202 Macro Economics AND an additional 5 credits of Social Science from the Distribution List for Transfer Degrees.

- **Electives:**

5 credits of non-business electives except as noted below: Note 6: Five institutions have requirements for admission to the major that go beyond those specified above. Students can meet these requirements by careful selection of the elective University Course Equivalent to: • WSU (all campuses): Management Information Systems MIS 250 • Gonzaga: Management Information Systems BMIS 235 • PLU: Computer Applications CSCE 120, either an equivalent course or skills test • SPU: Spreadsheets (BUS 1700), either an equivalent course or skills test • WWU: Introduction to Business Computer Systems MIS 220 (for transfer students entering fall 2014)

Business Courses (20 credits)

ACCT& 201*	Principles of Accounting I	5
ACCT& 202*	Principles of Accounting II	5
ACCT& 203*	Principles of Accounting III	5
BUS& 201	Business Law	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total transferable credits required to earn this degree: 90 with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

*It is recommended that sequence courses be completed at one institution.

Universities with a lower division Business Law requirement: UW (all campuses), WSU (all campuses), EWU, CWU, WWU, Gonzaga, SMU, SPU, Whitworth.

The following institutions do not require a *lower division* Business Law course and agree to accept the course taken as part of this degree as a lower division elective, but generally not as an equivalent to the course required at the upper division: Heritage, PLU, SU, and Walla Walla University.

Note 5: International students who completed a business law course specific to their home country must take a business law course at a U.S. institution in order to demonstrate proficiency in U.S. business law.

Students completing this program should acquire the following skills and abilities:

- Develop an understanding of market economies, supply and demand, cost benefit principles, resource allocation and key microeconomic terms.
- Analyze macroeconomic theories, fiscal and monetary policy, the banking system and Federal Reserve, factors affecting economic growth and international trade and finance.
- Apply a variety of mathematical and statistical procedures to accounting, business, and economic data and interpret the results to arrive at informed business decisions.
- Demonstrate an understanding of our legal system, the importance of contractual relationships, and the ethical implications of business transactions.
- Work effectively in collaborative/team environments to solve problems and complete projects.
- Develop skills utilizing common technological tools to conduct research and solve problems.

- Demonstrate the ability to use accounting and business terminology effectively in oral and written communication.
- Analyze and record business transactions in accordance with Generally Accepted Accounting Principles, communicate financial information about an organization and financial statement analysis.

Revised March 2019 (Effective Summer 2019)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements. Most four-year universities require one year of a single foreign language as a graduation requirement.

Associate in Applied Science - Transfer (AAS-T)

Business Management

for LCC BAS-OLTM

Entry-level supervisory and management positions require people with a strong foundation in general business, accounting, economics, and computers. The Business Management AAS-T degree is also designed for people interested in starting a business or preparing for advancement opportunities. This program also meets the academic requirements to apply for admittance into the Bachelor of Applied Science degree in Organizational Leadership and Technical Management at Lower Columbia College which prepares business professionals for positions in leadership, technical management and supervision.

Degree Requirements

- **Communications:**
5 credits - ENGL& 101 English Composition I
- **Quantitative Skills:**
5 credits – MATH& 107 Math in Society or higher with the exception of MATH& 131
- **Natural Sciences:**
5 credits - Natural Science with lab course from the Distribution List
- **Human Relations / Diversity**
5 credits – BUS 144 Management of Human Relations: DIV
- **Social Science:**
5 credits – BUS& 101 Intro to Business OR ECON& 201 Micro Economics

Program Requirements

ACCT 101 ACCT 135 ACCT& 201	Intro to Accounting Concepts OR Accounting For Non-Accountants OR Principles of Accounting I	5
BUS 100	Foundations of Business Success	3
BUS 150	Customer Service/Management	5
BUS 165	Salesmanship	5
BUS& 201	Business Law	5
BUS 240	Principles of Supervision	5
BUS 244	Human Resource Management	5
BUS 245	Principles of Management	5
BUS 259	Starting/Managing a Small Business	5
BUS 264	Principles of Marketing	5
BUS 270	Introduction to Project Management	5
BUS 294	Career Success	2
CS 110	Introduction to Microcomputer Applications	3
BTEC 131	Introduction to Spreadsheets	5
ECON 105 OR ECON& 201	Introduction to Economics OR Micro Economics	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 93 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to a business work environment. (GS Communication)
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions. (GS Critical Thinking)
- Apply mathematical information to make decisions and solve problems in business. (GS Numeracy/Quantitative Literacy)
- Interact effectively with individuals and groups. (GS Interpersonal Relations)
- Perform basic mathematical calculations specific to business activities, such as payroll, taxes, account reconciliation, and financial statement analysis. (GS)
- Perform basic bookkeeping and accounting tasks using spreadsheets and industry standard accounting software.
- Gather and analyze data to solve business-related problems. (GS)
- Identify the relationships between business functions such as accounting, marketing, purchasing, human resources, and operations management.
- Describe the relationship between economics concepts and business issues.
- Describe the relationship between business activities and legal constructs, such as Contract Law and the Uniform Commercial Code.
- Compose written business documents, including email, reports, and business plans using industry standards software. (GS)
- Develop and deliver business presentations. (GS)
- Collaborate in teams to solve business problems. (GS)
- Articulate the relationship between human behavior, a diverse work environment, and business outcomes. (GS)

Revised May 2023 (Effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Associate in Applied Science (AAS)

Business Management

Entry-level supervisory and management positions require people with a strong foundation in general business, accounting, economics, and computers. The Business Management AAS degree is also designed for people interested in starting a business or preparing for advancement opportunities.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Business Management - AAS** (lowercolumbia.edu/program-maps/business/AAS-Business-Management)

Degree Requirements

- **Communications:**
5 credits - BUS 119 Business Communications OR ENGL& 101 English Composition I.
- **Quantitative Skills:**
5 credits – BUS 104 Business Math Applications.
- **Human Relations / Social Science / Diversity**
5 credits – BUS 144 Management of Human Relations: DIV.
- **Humanities / Natural Sciences:**
5 credits – CMST& 220 Public Speaking (recommended) OR choose 5 credits from the Distribution List.
- **Electives:**
5 credits – BUS 159 Principles of Retailing OR BUS 290 Design Thinking & Entrepreneurship recommended.

Program Requirements

ACCT 101	Intro to Accounting Concepts	5
ACCT 135	OR	
ACCT& 201	Accounting F/Non Accountants OR Principles of Accounting I	
BUS 100	Foundations of Business Success	3
BUS& 101	Introduction to Business	5
BUS 150	Customer Service/ Management: DIV	5
BUS 165	Salesmanship	5
BUS& 201	Business Law	5
BUS 240	Principles of Supervision	5
BUS 244	Human Resource Management	5
BUS 245	Principles of Management	5
BUS 259	Start/Managing a Small Business	5

BUS 264	Principles of Marketing	5
BUS 270	Introduction to Project Management	5
BUS 294	Career Success	2
BTEC 104 OR CS 110	Introduction to Business Technology OR Introduction to Microcomputer Applications	5 3
BTEC 131	Introduction to Spreadsheets	5
ECON 105 OR ECON& 201	Introduction to Economics OR Micro Economics	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 98-100 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to a business work environment. (GS Communication)
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions. (GS Critical Thinking)
- Apply mathematical information to make decisions and solve problems in business. (GS Numeracy/Quantitative Literacy)
- Interact effectively with individuals and groups. (GS Interpersonal Relations)
- Perform basic mathematical calculations specific to business activities, such as payroll, taxes, account reconciliation, and financial statement analysis. (GS)
- Perform basic bookkeeping and accounting tasks using spreadsheets and industry standard accounting software.
- Gather and analyze data to solve business-related problems. (GS)
- Identify the relationships between business functions such as accounting, marketing, purchasing, human resources, and operations management.
- Describe the relationship between economics concepts and business issues.
- Describe the relationship between business activities and legal constructs, such as Contract Law and the Uniform Commercial Code.

- Compose written business documents, including email, reports, and business plans using industry standards software. (GS)
- Develop and deliver business presentations. (GS)
- Collaborate in teams to solve business problems. (GS)
- Articulate the relationship between human behavior, a diverse work environment, and business outcomes. (GS)

Revised December 2021 (Effective Summer 2022)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Students are strongly encouraged to take ENGL& 101 or BUS 119 before enrolling into any 200-level courses.

Legend:

- A - Course usually offered all quarters.
- F - Course usually offered Fall Quarter.
- W - Course usually offered Winter Quarter.
- Sp - Course usually offered Spring Quarter.
- S - Course usually offered Summer Quarter.

Associate in Science - Transfer (AS-T)

Chemistry

Chemistry explores matter and the basic properties and processes that surround us. Prepare for advanced studies and to work in a laboratory, manufacturing, research, management, environmental services and related fields. Analysts and technicians assist scientists in general lab work or process control. Students can also specialize in chemistry education.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Chemistry - AS-T (lowercolumbia.edu/program-maps/stem/AST-Chemistry)**

Degree Requirements

- **Communications:**
5 credits - ENGL& 101 English Composition I.
- **Quantitative / Symbolic Reasoning Skills:**
10 credits – MATH& 151* Calculus I AND MATH& 152* Calculus II.

- **Humanities / Social Sciences:**

15 credits – Selected from at least three disciplines on the Distribution List. A minimum of 5 credits in Humanities, and a minimum of 5 credits in Social Science, and an additional 5 credits in either Humanities or Social Science.

- **Diversity:**

5 credits – From the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title. Example: SOC& 101 – Introduction to Sociology:DIV.

- **Electives:**

Sufficient additional college-level credits to meet the 90 credit minimum. These remaining credits must include program advisor approved credits.

Pre-Major Requirements

*It is recommended that sequence courses be completed at one institution.

CHEM& 161*	General Chemistry w/Lab I	5
CHEM& 162*	General Chemistry w/Lab II	5
CHEM& 163*	General Chemistry w/Lab III	5
MATH& 146	Introduction to Statistics OR	5
MATH& 153*	Calculus III	
PHYS& 221*	Engr Physics I w/Lab	5
PHYS& 222*	Engr Physics II w/Lab	5
PHYS& 223*	Engr Physics III w/Lab	5
CHEM& 261*	Organic Chemistry w/Lab I	5
CHEM& 262*	Organic Chemistry w/Lab II	5
CHEM& 263*	Organic Chemistry w/Lab III	5

Recommended Electives

CHEM 231	Quantitative Analysis	5
MATH 220	Linear Algebra	5
MATH 240	Differential Equations	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total transferable credits required to earn this degree: 90 with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

Students completing this program should acquire the following skills and abilities:

- Will have foundations in the concepts and applications of current chemical and scientific theories.
- Ability to design, carry-out, record and analyze the results of chemical experiments.
- Ability to use modern instrumentation and classical techniques to design experiments, and to properly record the results of their experiments.
- Skilled in problem solving, critical thinking, and analytical reasoning.
- Students completing a Chemistry AS-T degree will be prepared for transfer to a chemistry program at baccalaureate-granting colleges and universities. Transfer readiness is evidenced by skills in applying scientific principles, using technology and mathematics to solve chemistry problems; understanding experimental processes; and understanding of chemical conceptual content.
- Will show evidence of ability in college-wide outcomes: numeracy, critical reasoning, Revised communication, and interpersonal skills.

Revised March 2019 (Effective Summer 2019)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor *and* for checking specific major requirements of baccalaureate institutions in the year prior to transferring. Consult the LCC catalog for LCC graduation requirements.

Most four-year universities require one year of a single foreign language as a graduation requirement.

Certificate of Completion (COC)

Commercial Truck Driving

The Commercial Truck Driving Certificate of Completion provides the Washington State required 40 hours of classroom training and 120 hours of truck driving skill development to prepare students for the Washington State Class A commercial driver's license exam.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Commercial Truck Driving - COC (lowercolumbia.edu/program-maps/trades/CO-C-Commercial-Truck-Driving)**

Certificate Requirements

DHET 228	Commercial Driving	4
DHET 229	Commercial Truck Driving	6

Total credits required to earn this certificate: 10

Students completing this program should acquire the following skills and abilities:

- Perform a commercial vehicle pre-trip inspection.
- Demonstrate an understanding of the function and operation of key vehicle systems.
- Demonstrate an understanding of Washington State laws concerning commercial vehicle operation.
- Demonstrate the basic skills required for safe truck operation including driving, parking, etc.
- Perform a pre-trip inspection on a Class A tractor/trailer vehicle.
- Safely couple and uncouple trailers utilizing fifth wheel hitches.
- Demonstrate safe and efficient commercial truck driving skills, such as backing, parking, etc.
- Demonstrate the correct use of transmission gearing and braking under various operating conditions.
- Explain the legal documentation requirements as related to commercial driving.

Revised July 2018 (Effective Fall 2018)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Associate in Arts - Direct Transfer Agreement (AA-DTA)

Communication Studies Focus

The speech program provides general education courses that assist students in improving communication skills and their understanding of communication. Credit and advanced skills may also be earned by participating in LCC's Program for intercollegiate debate competition.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Communication Studies - AA-DTA (lowercolumbia.edu/program-maps/arts/AAD TA-Communication-Studies)**

Degree Requirements

- **Communications:**
15 credits - ENGL& 101 English Composition I AND ENGL& 102 Composition II, AND CMST& 220 (was SPCH 110) Public Speaking OR CMST& 230 (was SPCH 114) Small Group Communication.
- **Quantitative/Symbolic Reasoning Skills:**
5 credits - MATH& 107 or higher (excluding MATH& 131).
- **Humanities:**
15 credits – Selected from at least two disciplines on the Distribution List. No more than 5 credits in foreign language at the 100 level, no more than 10 credits from any one discipline. No more than 5 credits in performance/skills courses are allowed.
- **Natural Sciences:**
15 credits – Selected from at least two disciplines on the Distribution List; must include 5 credits of lab courses. At least 10 credits in physical, biological and/or earth sciences. No more than 5 credits from Computer Science, Mathematics, and Engineering. Courses used to satisfy this requirement may not be used to satisfy the Quantitative Skills requirement.
- **Social Sciences:**
15 credits – Selected from at least two disciplines on the Distribution List. No more than 10 credits from any one discipline.
- **Diversity:**
5 credits – From the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title. Example: CMST 250 (was SPCH 109) Intercultural Communication:DIV.
- **Electives:**
25 credits - See advisor for approved list of electives. No more than 15 credits may be taken from the Restricted Course List.

Recommended Electives

CMST& 210 (was SPCH 104)	Interpersonal Communication	5
CMST 250 (was SPCH 109)	Intercultural Communication:DIV	5
CMST 136/7/8, 236/7/8 (was SPCH 136/7/8, 236/7/8)	Intercollegiate Debate	2 ea.

CMST 126/7/8, 226/7/8 (was SPCH 126/7/8, 226/7/8)	Competitive Public Speaking	2 ea.
CMST 240 (was SPCH 209)	Rhetorical Criticism/Pop Culture:DIV	5
If not used for Communication requirement:		
CMST& 220 (was SPCH 110)	Public Speaking OR Small Group	5
CMST& 230 (was SPCH 114)	Communication	

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total transferable credits required to earn this degree: 90 in courses numbered 100 or above with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

Students completing this program should acquire the following skills and abilities:

AA DTA Outcomes

Upon the completion of the AA DTA, students will be prepared for transfer to a four-year institution for the student's intended career pathway, and have the following skills and abilities:

Global Skills (assessed at degree level):

- Communication: Express ideas and information in writing and speaking in a manner that is clear and appropriate to the audience, and read and listen effectively.
- Critical thinking: Apply objective, valid methods of inquiry and problem-solving to draw rational, ethical, and coherent conclusions.
- Interpersonal relations: Interact effectively with individuals and/or within groups.
- Numeracy: Achieve competency with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills in practical and abstract contexts.

General education outcomes (assessed at course level):

- Diversity: Examine the causes and expressions of difference, power, and discrimination.
- Humanities: Explore how people process, document, and express their social and cultural experience.

- Social Science: Examine society, behavior, and relationships among individuals within a society.
- Natural Science: Develop familiarity with various aspects of the physical world and scientific explanations of observed phenomena.

Area of study outcomes:

- Express an understanding of the complexity of communication theory
- Identify and describe factors that contribute to effective communication
- Identify and perform skills and behaviors that make communication more effective
- Effectively use verbal and nonverbal communication to inform and persuade to diverse audiences

Revised June 2019

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor *and* with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements.

Most four-year universities require one year of a single foreign language as a graduation requirement.

Certificate of Completion (COC)

Community, Health, and Wellness Advocate

The Community, Health, and Wellness Advocate (CHWA) is a multi-skilled care manager who helps the patient navigate the complex maze of health and social service providers to find appropriate care. The CHWA educates patients and family members about healthy behaviors, monitors compliance with care management plans, and can accompany a patient on healthcare appointments. The advocate fosters mutual trust with a patient to develop an on-going professional relationship. Health and Wellness Advocates are required to have a wide-ranging skill set and knowledge base. Through a solid foundation in medical ethics and cultural awareness, the CHWA addresses the physical health, mental health, drug use, and social factors affecting a patient's health and wellness. The advocate must be familiar with the appropriate local, state, regional, and national agencies available to assist the patient, including familiarity with health information systems and healthcare funding.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Community, Health and Wellness Advocate – COC (lowercolumbia.edu/program-maps/business/COC-Community-Health-and-Wellness-Advocate)**

Certificate Requirements

AH 166	Mental Health First Aid for Adults	1
CS 110	Intro to Microcomputer Applications	3
BTEC 165	Cultural Awareness for Care Professionals: DIV	5
BTEC 170	Community Health Advocacy	5
BTEC 181	Medical Terminology I	3
OR	OR	
MEDA 101	Medical Vocabulary I	
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

To earn a Community Health and Wellness Advocate Certificate of Completion, you must complete a minimum of 18 credits and pass each course listed in the program requirements with a C or above.

Students completing this program should acquire the following skills and abilities:

- Utilize a clinical decision support tool and electronic health records to view cross-system health and social service utilization to identify care opportunities
- Provide in-person client health assessments
- Accompany the client to critical appointments
- Engage the client in developing a health action plan
- Coordinate and mobilize treating/authorizing entities as necessary to reinforce and support the client's health action goals
- Deliver culturally appropriate interventions, educational and informational materials

Revised August 2022 (Effective Summer 2023)

Notes:

Consult an advisor if you have any questions.

Certificate of Proficiency (COP)

Community, Health, and Wellness Advocate

The Community, Health, and Wellness Advocate (CHWA) is a multi-skilled care manager who helps the patient navigate the complex maze of health and social service providers to find appropriate care. The CHWA educates patients and family members about healthy behaviors, monitors compliance with care management plans, and can accompany a patient on healthcare appointments. The advocate fosters mutual trust with a patient to develop an ongoing professional relationship. Health and Wellness Advocates are required to have a wide-ranging skill set and knowledge base. Through a solid foundation in medical ethics and cultural awareness, the CHWA addresses the physical health, mental health, drug use, and social factors affecting a patient's health and wellness. The advocate must be familiar with the appropriate local, state, regional, and national agencies available to assist the patient, including familiarity with health information systems and healthcare funding.

Certificate Requirements

- **Communications:**
5 credits - ENGL& 101 English Composition I OR BUS 119 Business Communications.
- **Quantitative Skills:**
5 credits – BUS 104 Business Math Applications OR MATH& 107 Math in Society.
- **Diversity:**
5 credits – BTEC 165 Cultural Awareness for Care Professionals.

Core Program Requirements

AH 166	Mental Health First Aid for Adults	1
BUS 100	Foundations of Business Success	3
BTEC 104ORCS 110ANDBTEC 146	Intro to Business TechnologyORIntro to Microcomputer ApplicationsANDPowerpoint Fundamentals	5

BTEC 111	Word Processing I	5
BTEC 131	Introduction to Spreadsheets	5
BTEC 160	Medical Scribe	5
BTEC 164	Medical Office Law & Ethics	2
BTEC 165	Culture Awareness for Care Professionals:DIV	5
BTEC 170	Community Health Advocacy	5
BTEC 176	Social Determinants of Health	5
BTEC 177	Trauma Informed Care	5
BTEC 181	Medical Terminology I OR	3
MEDA 101	Medical Vocabulary I	
BTEC 182	Medical Terminology II OR	3
MEDA 102	Medical Vocabulary II	
BUS 294	Career Success	2
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

To earn a Community, Health, and Wellness Certificate of Proficiency, you must complete a minimum of **65 credits** and pass each course listed in program requirements with a **C** or better.

Students completing this program should acquire the following skills and abilities:

- Utilize a clinical decision support tool and electronic health records to view cross-system health and social service utilization to identify care opportunities
- Provide in-person client health assessments
- Accompany the client to critical appointments
- Engage the client in developing a health action plan
- Coordinate and mobilize treating/authorizing entities as necessary to reinforce and support the client's health action goals
- Deliver culturally appropriate interventions, educational and informational materials

November 2022 (Effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor.
Consult the LCC catalog for LCC graduation requirements.

AS-T COMP E EE/MRP

Computer & Electrical Pre-Engineering

Complete basic background studies for transfer to a bachelor's degree program in computer and electrical engineering disciplines. Careers may be found in research, development, design, operations management, teaching, sales and consulting.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Computer and Electrical Pre-Engineering - AS-T COMP E EE/MRP (2 year) (lowecolumbia.edu/program-maps/stem/AST-Computer-and-Electrical-Pre-Engineering-2-year)**
- **Computer and Electrical Pre-Engineering - AS-T COMP E EE/MRP (3 year) (lowecolumbia.edu/program-maps/stem/AST-Computer-and-Electrical-Pre-Engineering-3-year)**

Degree Requirements

- **Communications:**
5 credits - ENGL& 101 English Comp I.
- **Quantitative/Symbolic Reasoning Skills:**
25 credits – MATH& 151* Calculus I, MATH& 152* Calculus II, MATH& 153* Calculus III, MATH 220 Linear Algebra AND MATH 240 Differential Equations.
- **Humanities/ Social Sciences:**
15 credits – minimum 5 credits in Humanities, minimum 5 credits in Social Science, plus an additional 5 credits in either Humanities or Social Science from the Distribution List. ECON& 201 or 202 recommended.
- **Diversity:**
5 credits – from the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title. Example: SOC& 101 – Intro to Sociology:DIV.
- **Electives:**
10 credits minimum – select electives appropriate for your intended major and intended baccalaureate institution.

Pre-Major Requirements (41 credits)

CHEM& 161*	General Chemistry w/Lab I	5
CS 170	Computer Programming	5
CS 270	Data Structures I	5
PHYS& 221*	Engr Physics I w/Lab	5
PHYS& 222*	Engr Physics II w/Lab	5
PHYS& 223*	Engr Physics III w/Lab	5
ENGR& 204	Electrical Circuits	6

Recommended Electives

BIOL& 221	Majors Ecology/Evolution: w/Lab	5
CHEM& 162*	General Chemistry 2/Lab II	5
ENGL& 235	Technical Writing	5
ENGR 205**	Design of Logic Circuits	5
ENGR 206	Microprocessor Systems	5
ENGR& 214	Statics	5
ENGR& 215	Dynamics	
ENGR& 224	Thermodynamics	5
MATH& 254* (was MATH 154)	Calculus IV	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

*It is recommended that sequence courses be completed at one institution.

Total transferable credits required to earn this degree: a minimum of 91 with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

Students completing this program should acquire the following skills and abilities:

- Demonstrate the ability to use foundational knowledge in mathematics, physics, chemistry, and biology.
- Design and conduct experiments.

- Make measurements, analyze data, and interpret results.
- Problem solving, team, self-assessment and lifelong learning skills.
- Communicate effectively.

Revised April 2023 (Effective Summer 2023)

Notes:

Baccalaureate institutions party to this agreement are: UW Seattle, WSU, EWU, Gonzaga U, St. Martin's U, Seattle Pacific U, Seattle U and Walla Walla U.

Additional general education requirements, cultural diversity requirements, and foreign language requirements, as required by the receiving institution, must be met prior to the completion of a baccalaureate degree.

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor *and* with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements.

Most four-year universities require one year of a single foreign language as a graduation requirement.

Certificate of Proficiency (COP)

Computer Numerical Control

The Machine Trades certificate program is another route to employment as a machinist, millwright, tool and die maker, or other occupation related to manufacturing. Graduates may work as advanced apprentice machinists, machine operators, or programmers.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Computer Numerical Control - COP (lowercolumbia.edu/program-maps/trades/COP-Computer-Numerical-Control)**

Certificate Requirements

- **Communications:**
5 credits - ENGL 110 Industrial Communications is recommended.
- **Quantitative Skills:**
5 credits – MATH 106 Industrial Mathematics.
- **Human Relations / Social Science:**
5 credits – BUS 144 Management of Human Relations is recommended.

Program Requirements

BLPT 150	Machinists Blueprint Reading	5
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
MASP 107 <i>AND/OR</i> MASP 111	Machining for Related Occupations <i>AND/OR</i> Machine Shop I (2-10 <i>cr variable</i>) for a combined total of 10 credits	10
MASP 204	CNC Machining Center Fundamentals	3
MASP 205	CNC Turning Center Fundamentals	3
MASP 221	CNC Milling	10
MASP 222	CNC Turning	10
MFG 105	Industrial Safety	3
MFG 115	Manufacturing Processes	5
MFG 230	Computer Integrated Manufacturing	4

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this certificate: 69.

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to an industrial technology work environment (GS).
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS).
- Apply mathematical information to perform tasks in industrial technology (GS).
- Interact effectively with individuals and groups (GS).
- Apply industry standard safety and hazardous material handling guidelines.
- Display work appropriate behavior including positive attitude, timelines and teamwork.
- Apply knowledge of computer programs to create professional, academic, or business documents following current industry standards.
- Demonstrate competencies required for entry level machinist.

- Interpret industrial blueprints.
- Demonstrate competency in documenting and communicating work performed using trade specific language.
- Demonstrate competency in inspecting machined parts.
- Program computer numerical control (CNC) mill and CNC lathe to manufacture parts per specification.
- Demonstrate competency in set up and operation of a computer numerical control (CNC) mill and CNC lathe to manufacture parts per specification.
- Demonstrate competency in set up and operation of manual machine tools to manufacture parts per specification.
- Apply CAD/CAM software to design and manufacture parts per specification.

Revised March 2021 (Effective Fall 2021)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Associate in Science - Transfer (AS-T)

Computer Science for WSU Vancouver

Begin studies toward a Bachelor of Science degree in Computer Science. For the AS-T degree in Computer Science, various courses are offered such as calculus, physics, and computer science. A student can also take individual course in areas of interest to deepen knowledge and understanding. This degree is intended for WSU-V transfer students.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Computer Science AS-T (WSU-V) (lowercolumbia.edu/program-maps/stem/AST-Computer-Science-WSU-V)**

Degree Requirements

- **Communications:**
5 credits - ENGL& 101 English Composition I.
- **Quantitative / Symbolic Reasoning Skills:**
10 credits – MATH& 151* Calculus I AND MATH& 152* Calculus II.
- **Humanities / Social Sciences:**
15 credits – Must include 5 credits each Social Science (SS) and Humanities (HUM). See Distribution List. Confer with an advisor and the transfer university for acceptable

courses. Recommended: SS: ECON& 201/202, SOC& 101, POLS& 101/202, PSYC& 100/200, HIST& 127, HIST& 128 (ROOT/SS) HUM: ART& 100, DRMA& 101, HIST& 126

• **Lab Based Science Course:**

10 credits – Must have two categories of Natural Sciences Distribution. Confer with an advisor and the transfer university for acceptable courses. Recommended: PHYS& 223 or CHEM& 161 / BIOL& 160, BIOL& 221/222/223, BIOL& 241, ERSI 104/105/109, ENVS 215, GEOL& 101/208, OCEA& 101, GEOL 105/118.

• **Diversity:**

5 credits – HIST& 128 (ROOT/SS). Note that this course is also a ROOT/SS course.

• **Electives:**

0 - 15 credits - Confer with advisor and the transfer university for acceptable courses. Recommended: ENGL& 235 Technical Writing AND ANTH& 206 Cultural Anthropology (SS)OR HIST& 126 World Civilizations I (HUM)AND IT 249 Linux Systems.

Pre-Major Requirements

CS 170	Computer Programming	5
CS 270	Data Structures I	5
CS 275	Object-Orientated Prg in Java	5
CS 280	Advanced Data Structures	5
CS 285	Programming Tools	5
ENGR 205	Design of Logic Circuits	5
ENGR 206	Microprocessor Systems	5
MATH& 153*	Calculus III	5
MATH 215	Discrete Structures	5
MATH 220	Linear Algebra	5
MATH& 254	Calculus IV	5
PHYS& 221*	Engr Physics I w/Lab	5
PHYS& 222*	Engr Physics II w/Lab	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

*It is recommended that sequence courses be completed at one institution.

Total transferable credits required to earn this degree: 105 - 120 with a cumulative grade point average (GPA) of at least 2.0. Universities may expect certain minimal grades in various courses in order to certify into their computer science programs. A course cannot be credited toward more than one distribution or skill area.

Students completing this program should acquire the following skills and abilities:

- Apply mathematics to the solution of problems in computer science.
- Apply physics to the solution of problems in computer science.
- Discover, develop, and utilize algorithms suitable for the design of computer programs.
- Design and implement computer programs using various programming languages.

Revised June 2023 (Effective Summer 2023)

Notes:

WSUV requires: Must complete 5 of these 6 UCORE designations (by end of BS): ARTS, DIVR, HUM, SSCI, EQJS. Must complete one ROOT course. Courses listed under the Humanities ^(HUM)/Social Science ^(SS) for this degree transfer to WSU as one of these categories.

It is essential to work closely with your advisor due to course sequencing.

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor *and* for checking specific major requirements of baccalaureate institutions in the year prior to transferring. Consult the LCC catalog for LCC graduation requirements.

- MATH 215 is offered winter quarter of even years.
- MATH 220 is offered every spring quarter.
- ENGR 205 and ENGR 206 are offered every other year.

Most four-year universities require one year of a single foreign language as a graduation requirement.

Legend:

- A - Course usually offered all quarters.
- F - Course usually offered Fall Quarter.
- W - Course usually offered Winter Quarter.
- Sp - Course usually offered Spring Quarter.
- S - Course usually offered Summer Quarter.

Associate in Science - Transfer (AS-T)

Computer Science

Begin studies toward a Bachelor of Science degree in Computer Science. For the AS-T degree in Computer Science, various courses are offered such as calculus, physics, and computer science. A student can also take individual courses in areas of interest to deepen knowledge and understanding.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Computer Science - AST** (lowercolumbia.edu/program-maps/stem/AST-Computer-Science)
- **Computer Science AS-T (WSU-V)** (lowercolumbia.edu/program-maps/stem/AST-Computer-Science-WSU-V)

Degree Requirements

- **Communications:**
5 credits - ENGL& 101 English Composition I.
- **Quantitative / Symbolic Reasoning Skills:**
10 credits – MATH& 151* Calculus I AND MATH& 152* Calculus II.
- **Humanities / Social Sciences:**
15 credits – Selected from at least three disciplines on the Distribution List. A minimum of 5 credits in Humanities, and a minimum of 5 credits in Social Science, and an additional 5 credits in either Humanities or Social Science in a different discipline.
- **Lab Based Science Course:**
5 credits – such as biology, chemistry, etc. Confer with advisor and the transfer university for acceptable courses.
- **Diversity:**
5 credits – From the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title. Example: SOC& 101 – Introduction to Sociology:DIV.
- **Electives:**
At least 5 additional college-level credits to meet the 90 credit minimum. These remaining credits must include program advisor approved credits.

Pre-Major Requirements

CS 170	Computer Programming	5
CS 270	Data Structures I	5
CS 275	Object-Orientated Prg in Java	5
CS 280	Advanced Data Structures	5
MATH& 153*	Calculus III	5
MATH 215	Discrete Structures	5
MATH 220	Linear Algebra	5
PHYS& 221*	Engr Physics I w/Lab	5
PHYS& 222*	Engr Physics II w/Lab	5

PHYS& 223*	Engr Physics III w/Lab	5
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Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

*It is recommended that sequence courses be completed at one institution.

Total transferable credits required to earn this degree: 90 with a cumulative grade point average (GPA) of at least 2.0. Universities may expect certain minimal grades in various courses in order to certify into their computer science programs. A course cannot be credited toward more than one distribution or skill area.

Students completing this program should acquire the following skills and abilities:

- Apply mathematics to the solution of problems in computer science.
- Apply physics to the solution of problems in computer science.
- Discover, develop, and utilize algorithms suitable for the design of computer programs.
- Design and implement computer programs using various programming languages.

Revised November 2017

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor *and* for checking specific major requirements of baccalaureate institutions in the year prior to transferring. Consult the LCC catalog for LCC graduation requirements.

- MATH 215 is offered winter quarter of even years.
- MATH 220 is offered every spring quarter.

Most four-year universities require one year of a single foreign language as a graduation requirement.

Associate in Applied Science (AAS)

Criminal Justice

Modern law enforcement is a highly competitive career field. The more education you have, the better your chance of employment and advancement. Prepare for entry-level employment in law enforcement agencies and in some correctional facilities with an Associate in Applied Science degree in Criminal Justice. People working within those areas can use the program to enhance their skills.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Criminal Justice - AAS** (lowercolumbia.edu/program-maps/social-science/AAS-Criminal-Justice)

Degree Requirements

- **Communications:**
15 credits - ENGL& 101 English Composition I AND ENGL& 102 Composition II AND CMST& 220 Public Speaking.
- **Quantitative / Symbolic Reasoning Skills:**
5 credits – MATH& 107 OR higher with the exception of MATH& 131.
- **Social Sciences:**
5 credits – PSYC& 100 General Psychology.
- **Humanities/Diversity:**
5 credits – HUM 104 Ethics and Cultural Values:DIV.
- **Natural Science with Lab:**
5 credits - choose from Distribution List
- **Electives:**
3-5 credits - Required Course: COLL 101 College Success, 2 credits; required course for new students

Program Requirements

CJ& 101	Intro to Criminal Justice	5
CJ 104	Intro to Policing	5
CJ& 105	Intro to Corrections	5
CJ& 106	Juvenile Justice	5
CJ& 110	Criminal Law	5
CJ 154	The American Legal System	5
CJ 180	Report Writing for Law Enforcement	5
CJ 184	Administration of Justice	5
CJ 187	Crisis Intervention for Professionals	3
CJ 260	Physical Evidence and Criminalistics	5
CS 110	Introduction to Microcomputer Applications	3
POLS& 202	US Government	5

Recommended Electives

SUDS 114	Suicide Assessment, Prevention, and Crisis Management	2
SUDS 288	Criminal Justice Cooperative Work Experience	Var.
COLL 289	Employment Portfolio Seminar	1
POLS 220	Law and Social Issues	5
SOC& 101	Introduction to Sociology:DIV	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 94-96 with a cumulative grade point average (GPA) of at least 2.0.

Students completing this program should acquire the following skills and abilities:

- Apply knowledge of criminal law in Washington State to hypothetical fact patterns (GS - Critical Thinking)
- Demonstrate knowledge of constitutional law as it pertains to criminal justice (GS - Critical Thinking)
- Analyze how a case proceeds through the criminal justice system (GS - Critical Thinking)
- Use effective verbal and written communication skills (GS - Communications)
- Demonstrate basic knowledge and application of methods of police patrol, operations, and management
- Analyze numerical data as applied to criminal justice (GS - Quantitative Reasoning)
- Generate satisfactory reports based on knowledge of investigative techniques, evidence gathering, searching, sketching, and on-scene interviewing
- Demonstrate knowledge of the juvenile justice system
- Demonstrate knowledge of skills needed in working with diverse populations and resolving conflict in a variety of situations (GS - Teamwork)
- Evaluate ethics and ethical applications in criminal justice

Revised May 2023 (effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor for specific requirements. Consult the LCC catalog for LCC graduation requirements.

The necessity for prerequisite classes or beginning classes in a quarter other than Fall will change this plan and may extend beyond two years.

Associate in Arts - Direct Transfer Agreement (AA-DTA)

Criminal Justice Focus

Modern law enforcement is a highly competitive career field. The more education you have, the better your chance of employment and advancement. Prepare for entry-level employment in law enforcement agencies and in some correctional facilities. People working within those areas can use the program to enhance their skills.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Criminal Justice - AA-DTA (lowercolumbia.edu/program-maps/social-science/AA-DTA-Criminal-Justice)**

Degree Requirements

- **Communications:**
15 credits - ENGL& 101 English Composition I AND ENGL& 102 Composition II AND CMST& 220 (was SPCH 110) Public Speaking OR CMST& 230 (was SPCH 114) Small Group Communication.
- **Quantitative / Symbolic Reasoning Skills:**
5 credits – MATH& 107 or higher with the exception of MATH& 131.
- **Humanities:**
15 credits – Selected from at least two disciplines on the Distribution List. No more than 5 credits in foreign language at the 100 level, no more than 10 credits from any one discipline. No more than 5 credits in performance/skills courses are allowed.
- **Natural Sciences:**
15 credits – Selected from at least two disciplines on the Distribution List; must include 5 credits of lab courses. At least 10 credits in physical, biological and/or earth sciences. No more than 5 credits from Computer Science, Mathematics, and Engineering. Courses used to satisfy this requirement may not be used to satisfy the Quantitative Skills requirement.
- **Social Sciences:**
15 credits – Selected from at least two disciplines on the Distribution List. No more than 10 credits from any one discipline.

- **Diversity:**

5 credits – From the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by ‘DIV’ attached to the course title. Example: SOC & 101 – Introduction to Sociology :DIV.

- **Electives:**

25 credits - See advisor for approved list of electives. No more than 15 credits may be taken from the Restricted Course List

Recommended Electives

CJ& 101	Intro to Criminal Justice	5
CJ& 110	Criminal Law	5
CJ 154	The American Legal System	5
CJ 181	Report Writing for Law Enforcement	3
CJ 184	Administration of Justice	5
CJ 260	Physical Evidence/ Criminalistics	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total transferable credits required to earn this degree: 90 in courses numbered 100 or above with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

Students completing this program should acquire the following skills and abilities:

AA DTA Outcomes

Upon the completion of the AA DTA, students will be prepared for transfer to a four-year institution for the student's intended career pathway, and have the following skills and abilities:

Global Skills (assessed at degree level):

- Communication: Express ideas and information in writing and speaking in a manner that is clear and appropriate to the audience, and read and listen effectively.
- Critical thinking: Apply objective, valid methods of inquiry and problem-solving to draw rational, ethical, and coherent conclusions.
- Interpersonal relations: Interact effectively with individuals and/or within groups.

- Numeracy: Achieve competency with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills in practical and abstract contexts.

General education outcomes (assessed at course level):

- Diversity: Examine the causes and expressions of difference, power, and discrimination.
- Humanities: Explore how people process, document, and express their social and cultural experience.
- Social Science: Examine society, behavior, and relationships among individuals within a society.
- Natural Science: Develop familiarity with various aspects of the physical world and scientific explanations of observed phenomena.

Area of study outcomes:

- Effectively communicate in writing.
- Prepare to take the Civil Service test.
- Understand the function of the legal system from the civil and criminal justice perspective.
- Apply basic investigative techniques in gathering and identifying crime scene evidence.
- Gain insight and awareness of the essential elements of community policing and problem solving.
- Understand how our criminal justice system evolved and how it functions.
- Identify and examine how the various agencies involved in the administration of justice interact.
- Demonstrate and explain the principles of criminal law including crimes against persons and property.

Revised June 2023 (Effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor *and* with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements.

Most four-year universities require one year of a single foreign language as a graduation requirement.

Certificate of Proficiency (COP)

Diesel/Heavy Equipment Preventative Maintenance

The Diesel/Heavy Equipment Preventative Maintenance program prepares students for careers in any industry that utilizes trucks, excavators, bulldozers, vessels or any other industrial equipment utilizing diesel power, hydraulics or other mechanical power transmission devices. This certificate is a shorter route to entry-level jobs.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Diesel/Heavy Equipment Preventative Maintenance - COP (lowercolumbia.edu/program-maps/trades/COP-Diesel-Heavy-Equipment-Preventative-Maintenance)**

Certificate Requirements

Communications:	5 credits – ENGL 110 Industrial Communications, ENGL& 101 OR 102 English Composition I & II, BUS 119 Business Communications, CMST& 220 Public Speaking, CMST&230 Small Group Communication
Quantitative Skills:	5 credits – MATH 106 Industrial Mathematics
Human Relations / Social Science:	5 credits – BUS 144 Management of Human Relations recommended

Program Requirements

HLTH 105	First Aid, CPR, and Bloodborne Pathogens	1
MFG 105	Industrial Safety	3
DHET	Any DHET courses approved by the program Advisor	45

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required for this certificate: 64

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to an industrial technology work environment (GS).
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS).
- Apply mathematical information to perform tasks in industrial technology (GS).
- Interact effectively with individuals and groups (GS).
- Apply industry standard safety and hazardous material handling guidelines.
- Display work appropriate behavior including positive attitude and teamwork.
- Apply knowledge of computer programs to create professional, academic, or business documents following current industry standards.
- Complete tasks accurately, safely and within a given timeframe.
- Demonstrate competency in accurately following service information procedures and documenting work performed.
- Demonstrate the required skills needed to troubleshoot and repair basic mechanical systems including hydraulic, electrical, air and hydraulic brakes, engine, power transmission, chassis and air conditioning.

Revised March 2021 (Effective Summer 2021)

Notes:

Consult an advisor if you have any questions.

Associate in Applied Science (AAS)

Diesel/Heavy Equipment Technology

The Diesel/Heavy Equipment Technology program prepares students for careers in any industry that utilizes trucks, heavy equipment, vessels or any other industrial equipment utilizing diesel power, hydraulics or other mechanical power transmission devices. Some of the many different areas of graduate employment include trucking firms, heavy equipment dealerships, logging companies, railroads, tug boats, industrial maintenance and sales.

With a strong emphasis on fluid power, LCC's Diesel/Heavy Equipment Technology program is one of few accepted for membership in the National Fluid Power Association. Students may enter the program any quarter and may transfer to pursue a bachelor's degree in Diesel Power at several baccalaureate institutions.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Diesel/Heavy Equipment Technology - AAS (lowercolumbia.edu/program-maps/trades/AAS-Diesel-Heavy-Equipment)**

DHET 100	Essentials of Mechanics	5
DHET 104	Electrical Systems	15
DHET 105	Vehicle Climate Control	5
DHET 114	Heavy Duty Brakes and Chassis	15
DHET 141	Hydraulics I	4
DHET 142	Hydraulics II	6
DHET 210	Diesel Engine Rebuild	15
DHET 215	Heavy Duty Engine Performance	15
DHET 220	Heavy Duty Power Trains	10
DHET 230	Advanced Shop Practices	5
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
MFG 105	Industrial Safety	3

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

**Total credits required to earn this degree: 129 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.*

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to an industrial technology work environment (GS Communication).
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS Critical Thinking).
- Apply mathematical information to perform tasks in industrial technology (GS Numeracy/Quantitative Literacy).
- Interact effectively with individuals and groups (GS Interpersonal relations).
- Apply industry standard safety and hazardous material handling guidelines.
- Display work appropriate behavior including positive attitude, timeliness and teamwork.
- Apply knowledge of computer programs to create professional, academic, or business documents following current industry standards.
- Complete tasks accurately, safely and within a given timeframe.
- Demonstrate competency in accurately following service information procedures and documenting work performed.
- Demonstrate the required skills needed to troubleshoot and repair advanced mechanical systems including hydraulic, electrical, air and hydraulic brakes, engine, power transmission, chassis and air conditioning.

Revised December 2021 (Effective Summer 2022)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements.

Associate in Applied Science - Transfer (AAS-T)

Diesel/Heavy Equipment Technology for LCC BAS-OLTM

The Diesel/Heavy Equipment Technology AAS-T program prepares students for careers in any industry that utilizes trucks, heavy equipment, vessels or any other industrial

equipment utilizing diesel power, hydraulics or other mechanical power transmission devices. With a strong emphasis on fluid power, LCC's Diesel/Heavy Equipment Technology program is one of few accepted for membership in the National Fluid Power Association. This program also meets the academic requirements to apply for admittance into Lower Columbia's Bachelor of Applied Science degree in Organizational Leadership and Technical Management which prepares industry professionals for positions in leadership, management and supervision.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Diesel/Heavy Equipment Technology - AAS-T (BAS-OLTM Option) (lowercolumbia.edu/program-maps/trades/AAS-Diesel-Heavy-Equipment-to-BAS-OLTM)**

Degree Requirements

- **Communications:**
5 credits – ENGL& 101 English Composition I
- **Quantitative Skills:**
5 credits – MATH& 107 Math in Society or higher except for MATH& 131
- **Natural Sciences:**
5 credits – Natural Science with lab from the Distribution List
- **Diversity / Human Relations:**
5 credits – BUS 144 Management of Human Relations: DIV

Program Requirements

COLL 289	Employment Portfolio Seminar	1
CS 110	Introduction to Microcomputer Applications	3
DHET 100	Essentials of Mechanics	5
DHET 104	Electrical Systems	15
DHET 105	Vehicle Climate Control	5
DHET 114	Heavy Duty Brakes and Chassis	15
DHET 141	Hydraulics I	4
DHET 142	Hydraulics II	6
DHET 210	Diesel Engine Rebuild	15
DHET 215	Heavy Duty Engine Performance	15
DHET 220	Heavy Duty Power Trains	10

DHET 230	Advanced Shop Practices	5
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
MFG 105	Industrial Safety	3
DHET 288	Cooperative Work Experience	2

DHET 299 may be substituted for COLL 289 and DHET 288 (3 credits) with program advisor permission.

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 125

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to an industrial technology work environment (GS Communication).
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS Critical Thinking).
- Apply mathematical information to perform tasks in industrial technology (GS Numeracy/Quantitative Literacy).
- Interact effectively with individuals and groups (GS Interpersonal relations).
- Apply industry standard safety and hazardous material handling guidelines.
- Display work appropriate behavior including positive attitude, timeliness and teamwork.
- Apply knowledge of computer programs to create professional, academic, or business documents following current industry standards.
- Complete tasks accurately, safely and within a given timeframe.
- Demonstrate competency in accurately following service information procedures and documenting work performed.
- Demonstrate the required skills needed to troubleshoot and repair advanced mechanical systems including hydraulic, electrical, air and hydraulic brakes, engine, power transmission, chassis and air conditioning.

Revised May 2023 (Effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements.

Associate in Arts - Direct Transfer Agreement (AA-DTA)

Drama Focus

Dramatic experience provides insights into the complex motivation for human behavior. Students interested in acting can complete an associate degree or begin studies to transfer to a baccalaureate program. Drama courses can also be an important supplement for those who plan to major in the humanities or social sciences.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Drama - AA-DTA (lowercolumbia.edu/program-maps/arts/AADTA-Drama)**

Degree Requirements

- **Communications:**

15 credits - ENGL& 101 English Composition I AND ENGL& 102 Composition II, AND CMST& 220 (was SPCH 110) Public Speaking OR CMST& 230 (was SPCH 114) Small Group Communication.

- **Quantitative/Symbolic Reasoning Skills:**

5 credits – MATH& 107 or higher with the exception of MATH& 131.

- **Humanities:**

15 credits – Selected from at least two disciplines on the Distribution List. No more than 5 credits in foreign language at the 100 level, no more than 10 credits in any one discipline. No more than 5 credits in performance/skills courses are allowed.

- **Natural Sciences:**

15 credits – Selected from at least two disciplines on the Distribution List; must include 5 credits of lab courses. At least 10 credits in physical, biological and/or earth sciences. No more than 5 credits from Computer Science, Mathematics, and Engineering. Courses used to satisfy this requirement may not be used to satisfy the Quantitative Skills requirement.

- **Social Sciences:**

15 credits – Selected from at least two disciplines on the Distribution List. No more than 10 credits from any one discipline. PSYC, SOC, and POLS are recommended disciplines.

- **Diversity:**

5 credits – From the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title. Example: DRMA& 101 – Introduction to Theatre:DIV.

- **Electives:**

25 credits - See advisor for approved list of electives. No more than 15 credits may be taken from the Restricted Course List on the Distribution List.

Recommended Electives

DRMA& 101	Introduction to Theatre:DIV	5
DRMA 106/7/8	Intro to Acting I, II, III	5 ea.
DRMA 206/7/8	Acting I, II, III	5 ea.
DRMA 116/7/8	Stage Crafts I, II, III	5 ea.
DRMA 119	Intro to Theatre Design & Tech	5
DRMA 196/7/8	Rehearsal & Performance I,II,III	5 ea.
DRMA 296/7/8	Rehearsal & performance IV,V,VI	5 ea.

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Minimum transferable credits required to earn this degree: 90 in courses numbered 100 or above with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

Students completing this program should acquire the following skills and abilities:

AA DTA Outcomes

Upon the completion of the AA DTA, students will be prepared for transfer to a four-year institution for the student's intended career pathway, and have the following skills and abilities:

Global Skills (assessed at degree level):

- Communication: Express ideas and information in writing and speaking in a manner that is clear and appropriate to the audience, and read and listen effectively.
- Critical thinking: Apply objective, valid methods of inquiry and problem-solving to draw rational, ethical, and coherent conclusions.
- Interpersonal relations: Interact effectively with individuals and/or within groups.
- Numeracy: Achieve competency with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills in practical and abstract contexts.

General education outcomes (assessed at course level):

- Diversity: Examine the causes and expressions of difference, power, and discrimination.

- Humanities: Explore how people process, document, and express their social and cultural experience.
- Social Science: Examine society, behavior, and relationships among individuals within a society.
- Natural Science: Develop familiarity with various aspects of the physical world and scientific explanations of observed phenomena.

Area of study outcomes:

- Understand the complex nature of theatre both technical and artistic.

Revised June 2019 (Effective Summer 2019)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements. Most four-year universities require one year of a single foreign language as a graduation requirement.

Associate in Applied Science (AAS)

Early Childhood Education

Transfers to the Lower Columbia College BAS-TE and BAS-OLTM degrees.

This program provides students with both academic coursework and field experience necessary to become a teacher of children ages birth to 8 years. The program allows the student to experience working with young children and mentor teachers. The program includes teaching methods in reading, language arts, mathematics, science, social studies, children's literature, expressive arts, and observation and assessment techniques. Emphasis is placed on educational foundations, child development, nutrition, families, communities, schools and other agencies. Students entering the Early Childhood Education Program must show evidence of a current TB test and obtain a cleared Portable Background check through Washington State Department of Children, Youth, and Families.

See: <https://www.dcyf.wa.gov/services/early-learning-providers/background-checks>

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Early Childhood Education - AAS (lowercolumbia.edu/program-maps/education/AAS-Early-Childhood-Education)**

Degree Requirements

- **Communications:**
10 credits - ENGL& 101 English Composition I AND ENGL& 102 Composition II OR CMST& 220 Public Speaking
- **Quantitative Skills:**
5 credits – MATH& 132 Math for Elementary Educators 2
- **Humanities:**
5 credits – from the Humanities distribution list. ENGL 270 Literature for Children OR CMST& 210 Interpersonal Communication recommended
- **Natural Sciences:**
10 credits - MATH& 131 Math for Elementary Educators I and 5 credits w/lab from the Natural Science distribution list. PHSC 109 Energy & Matter recommended
- **Social Sciences:**
10 credits – EDUC& 115 Child Development AND HIST& 136 World Civilizations I: DIV OR HIST& 137 World Civilizations II: DIV
- **Diversity:**
5 credits – EDUC& 205 Intro to Education

Program Requirements

ECED& 105	Intro Early Childhood Education	5
ECED& 107	Health/Safety Nutrition	5
ECED& 120	Practicum-Nurturing Relationships	2
ECED& 160	Curriculum Development	5
ECED& 170	Learning Environments	3
ECED& 180	Language & Literacy Development	3
ECED& 190	Observation/Assessment	3
ECED 225	STEAM in Early Childhood	5
ECED 261	Practicum IV/Principles	3
ECED 262	Practicum V/Practice	3
ECED 263	Practicum VI/Professionalism	3
EDUC& 130	Guiding Behavior	3
EDUC& 150	Child, Family, Community	3
EDUC& 204	Inclusive Education-Birth through 21 focus	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 96 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.

Students completing this program should acquire the following skills and abilities:

- Create and maintain a safe and healthy environment for young children and families
- Discuss how children differ in their development and approaches to learning
- Apply knowledge of child development to intentionally support physical, social, emotional and cognitive growth
- Develop interpersonal skills to build relationships with children and families, enhancing children's self-esteem, social and emotional development, and problem solving skills
- Utilize theory, research, developmentally appropriate practice and a variety of instructional strategies when planning and implementing curriculum
- Individualize guidance and problem solving techniques to support social and emotional development
- Assess a variety of tools to strengthen the home to school connection
- Examine features of an anti-biased, culturally relevant environment/curriculum, not exclusive to race, ethnicity, family diversity, learning styles and abilities
- Create a professional development plan to maintain knowledge of current issues and trends in the field
- Communicate effectively through the spoken and written word and through visual materials for varied audience and purposes
- Compare and contrast a variety of observation and assessment tools, to analyze data with the purpose of developing age and developmentally appropriate curriculum
- Utilize critical thinking strategies to evaluate the validity of sources, and credit ideas or sources appropriately
- Analyze numerical data from child assessments to plan and implement developmentally appropriate teaching strategies

Revised May 2023 (Effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Certificate of Proficiency (COP)

Early Childhood Education (State Certificate)

LCC 's State Early Childhood Education Certificate provides the coursework for students to achieve level 7 on the Career Lattice. This certificate is the third level in the statewide one-year certificate. Built with Common Courses and Common Core Competencies, this certificate will transfer in and transfer to other community colleges in a seamless manner. Employees achieving this certificate will assist their centers in the Early Achievers Rating system. Students entering the Early Childhood Education Program must show evidence of a current TB test and obtain a cleared Portable Background check through Washington State Dept of Early Learning MERIT System.

See: <https://www.dcyf.wa.gov/services/early-learning-providers/background-checks>

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Early Childhood Education - COP (State Certificate) (lowercolumbia.edu/program-maps/education/COP-State-Early-Childhood-Education)**

Program Requirements

ECED& 105	Intro to Early Childhood Educ	5
ECED& 107	Health, Safety, and Nutrition	5
ECED& 120	Practicum-Nurturing Relationships	2
ECED& 160	Curriculum	5
ECED& 180	Lang/Literacy Development	3
ECED& 190	Observation/Assessment	3
ECED& 170 OREDUC& 130	Learning Environments OR Guiding Behavior	3
EDUC& 150	Child, Family, Community	3

Complete one of the following content areas:

EDUC& 130	Guiding Behavior (ECED Gen)	3
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ECED& 132	Infants/Toddler Care (Inf/Tod Care)	3
EDUC& 136	School Age Care (School-Age Care)	3
ECED& 134	Family Child Care (Family Child Care)	3
ECED& 139	Administration of ECE (Admin)	3

General Education Requirements

ENGL& 101	English Composition I or higher	5
MATH& 107	College Level Math or higher	5
EDUC& 115	Child Development	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this certificate: 47

Students completing this program should acquire the following skills and abilities:

- Create and maintain a safe and healthy environment for young children.
- Demonstrate an understanding of how children differ in their development and approaches to learning and use this knowledge to provide opportunities supporting physical, social, emotional, and cognitive growth.
- Develop relationships with children enhancing children's self-esteem, social-emotional development, and problem-solving skills.
- Use individual and group guidance and problem solving techniques to support positive relationships with children assisting their development in self esteem, self control, and self motivation.
- Gather empirical data employing a variety of observation and assessment tools, and analyze data with the purpose of developing age and developmentally appropriate curriculum.
- Utilize age appropriate music, art, and craft activities and ideas to foster the development of creativity, motor skills, and interpersonal skills in children.
- Create an anti-biased, culturally relevant environment modeling respect for the many facets that fall under the term "diversity".

- Demonstrate the ability to use theory, research, developmentally appropriate practice and a variety of instructional strategies when planning and implementing curriculum.
- Utilize age appropriate math, science, computer, and literature activities and ideas to foster the development of language, communication, and basic numerical skills, creativity, and curiosity regarding math, science, and technology.
- Develop personally and professionally, maintaining current knowledge in the field and participating in on-going professional development.

Revised October 2021 (Effective Fall 2021)

Notes:

This is a tentative schedule. Students may adjust the credit load according to their needs. The sequence should stay approximately as listed above even though there is some flexibility. Consult an advisor if you have any questions.

Certificate of Completion (COC)

Early Childhood Education (State Initial Certificate)

LCC's State Initial Early Childhood Education Certificate programs allow you to earn basic credentials for job opportunities quickly, then build on them for higher level credentials and job opportunities. The coursework in this certificate enables students to achieve level 5 on the Career Lattice. This certificate is the first level in the statewide one-year certificate. Built with Common Courses and Common Core Competencies, this certificate will transfer in and transfer to other community colleges in a seamless manner. Employees achieving this certificate will assist their centers in the Early Achievers Rating System. Students entering the Early Childhood Education Program must show evidence of a current TB test and obtain a cleared Portable Background check through Washington State Dept of Early Learning MERIT System.

See: <https://www.dcyf.wa.gov/services/early-learning-providers/background-checks>

Certificate Requirements

ECED& 105	Intro to Early Childhood Educ.	5
ECED& 107	Health, Safety, and Nutrition	5
ECED& 120	Practicum	2

Total credits required to earn this certificate: 12

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Students completing this program should acquire the following skills and abilities:

- Create and maintain a safe and healthy environment for young children.
- Demonstrate an understanding of how children differ in their development and approaches to learning and use this knowledge to provide opportunities supporting physical, social, emotional, and cognitive growth.
- Develop relationships with children enhancing children's self-esteem, social-emotional development, and problem-solving skills.

Revised May 2014 (Effective Fall 2014)

Notes:

This is a tentative schedule. Students may adjust the credit load according to their needs. The sequence should stay approximately as listed above even though there is some flexibility. Consult an advisor if you have any questions.

Certificate of Specialization (COS)

Early Childhood Education (State Short Certificate) - Administration

About The Program

LCC 's State Short Early Childhood Education Certificate of Specialization-Administration program provides the coursework for students to achieve level 6 on the Career Lattice. Built with Common Courses and Common Core Competencies, this certificate will transfer in and transfer to other community colleges in a seamless manner. Employees achieving this certificate will assist their centers in the Early Achievers Rating system. Students entering the Early Childhood Education Program must show evidence of a current TB test and obtain a cleared Portable Background check through Washington State Dept of Early Learning MERIT system.

See: <https://www.dcyf.wa.gov/services/early-learning-providers/background-checks>

Certificate Requirements

ECED& 105	Intro to Early Childhood Education	5
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ECED& 107	Health/Safety/Nutrition	5
ECED& 120	Practicum-Nurturing Relationships	2
EDUC& 115	Child Development	5
ECED& 139	Administration of ECE	3

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this certificate: 20

Students completing this program should acquire the following skills and abilities:

- Create and maintain a safe and healthy environment for young children.
- Demonstrate an understanding of how children differ in their development and approaches to learning and use this knowledge to provide opportunities supporting physical, social, emotional, and cognitive growth.
- Develop relationships with children enhancing children's self-esteem, social-emotional development, and problem-solving skills.

Revised March 2019 (Effective Spring 2019)

Notes:

Consult an advisor if you have any questions.

Certificate of Specialization (COS)

Early Childhood Education (State Short Certificate) - Family Child Care

LCC 's State Short Early Childhood Education Certificate of Specialization-Family Child Care program provides the coursework for students to achieve level 6 on the Career Lattice. Built with Common Courses and Common Core Competencies, this certificate will transfer in and transfer to other community colleges in a seamless manner. Employees achieving this certificate will assist their centers in the Early Achievers Rating system. Students entering the Early Childhood Education Program must show evidence of a current TB test and obtain a cleared Portable Background check through Washington State Dept of Early Learning MERIT system.

See: <https://www.dcyf.wa.gov/services/early-learning-providers/background-checks>

Certificate Requirements

ECED& 105	Intro to Early Childhood Education	5
ECED& 107	Health/Safety/Nutrition	5
ECED& 120	Practicum-Nurturing Relationships	2
EDUC& 115	Child Development	5
ECED& 134	Family Child Care	3

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this certificate: 20

Students completing this program should acquire the following skills and abilities:

- Create and maintain a safe and healthy environment for young children.
- Demonstrate an understanding of how children differ in their development and approaches to learning and use this knowledge to provide opportunities supporting physical, social, emotional, and cognitive growth.
- Develop relationships with children enhancing children's self-esteem, social-emotional development, and problem-solving skills.

Revised May 2014 (Effective Fall 2014)

Notes:

Consult an advisor if you have any questions.

Certificate of Specialization (COS)

Early Childhood Education (State Short Certificate) - General

LCC 's State Short Early Childhood Education Certificate of Specialization-General program provides the coursework for students to achieve level 6 on the Career Lattice. Built with Common Courses and Common Core Competencies, this certificate will transfer in and transfer to other community colleges in a seamless manner. Employees achieving this certificate will assist their centers in the Early Achievers Rating system. Students entering the Early Childhood Education Program must show evidence of a current TB test

and obtain a cleared Portable Background check through Washington State Dept of Early Learning MERIT System.

See: <https://www.dcyf.wa.gov/services/early-learning-providers/background-checks>

Certificate Requirements

ECED& 105	Intro to Early Childhood Education	5
ECED& 107	Health/Safety/Nutrition	5
ECED& 120	Practicum-Nurturing Relationships	2
EDUC& 115	Child Development	5
EDUC& 130	Guiding Behavior	3

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this certificate: 20

Students completing this program should acquire the following skills and abilities:

- Create and maintain a safe and healthy environment for young children.
- Demonstrate an understanding of how children differ in their development and approaches to learning and use this knowledge to provide opportunities supporting physical, social, emotional, and cognitive growth.
- Develop relationships with children enhancing children's self-esteem, social-emotional development, and problem-solving skills.

Revised May 2014 (Effective Fall 2014)

Notes:

Consult an advisor if you have any questions.

Certificate of Specialization (COS)

Early Childhood Education (State Short Certificate) - Infants & Toddlers

LCC 's State Short Early Childhood Education Certificate of Specialization-Infants and Toddlers program provides the coursework for students to achieve level 6 on the Career

Lattice. Built with Common Courses and Common Core Competencies, this certificate will transfer in and transfer to other community colleges in a seamless manner. Employees achieving this certificate will assist their centers in the Early Achievers Rating system. Students entering the Early Childhood Education Program must show evidence of a current TB test and obtain a cleared Portable Background check through Washington State Dept of Early Learning MERIT System.

See: <https://www.dcyf.wa.gov/services/early-learning-providers/background-checks>

Certificate Requirements

ECED& 105	Intro to Early Childhood Education	5
ECED& 107	Health/Safety/Nutrition	5
ECED& 120	Practicum-Nurturing Relationships	2
EDUC& 115	Child Development	5
ECED& 132	Infants/Toddler Care	3

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this certificate: 20

Students completing this program should acquire the following skills and abilities:

- Create and maintain a safe and healthy environment for young children.
- Demonstrate an understanding of how children differ in their development and approaches to learning and use this knowledge to provide opportunities supporting physical, social, emotional, and cognitive growth.
- Develop relationships with children enhancing children's self-esteem, social-emotional development, and problem-solving skills.

Revised May 2014 (Effective Fall 2014)

Notes:

Consult an advisor if you have any questions.

Certificate of Specialization (COS)**Early Childhood Education (State Short Certificate) - School Age Care**

LCC 's State Short Early Childhood Education Certificate of Specialization-School Age Care program provides the coursework for students to achieve level 6 on the Career Lattice. Built with Common Courses and Common Core Competencies, this certificate will transfer in and transfer to other community colleges in a seamless manner. Employees achieving this certificate will assist their centers in the Early Achievers Rating system. Students entering the Early Childhood Education Program must show evidence of a current TB test and obtain a cleared Portable Background check through Washington State Dept of Early Learning MERIT System.

See: <https://www.dcyf.wa.gov/services/early-learning-providers/background-checks>

Certificate Requirements

ECED& 105	Intro to Early Childhood Education	5
ECED& 107	Health/Safety/Nutrition	5
ECED& 120	Practicum-Nurturing Relationships	2
EDUC& 115	Child Development	5
EDUC& 136	School Age Care	3

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this certificate: 20

Students completing this program should acquire the following skills and abilities:

- Create and maintain a safe and healthy environment for young children.
- Demonstrate an understanding of how children differ in their development and approaches to learning and use this knowledge to provide opportunities supporting physical, social, emotional, and cognitive growth.
- Develop relationships with children enhancing children's self-esteem, social-emotional development, and problem-solving skills.

Revised January 2015 (Effective Fall 2015)

Notes:

Consult an advisor if you have any questions.

Associate in Science - Transfer (AS-T)

Earth Sciences

Knowledge about the planet we inhabit, the surrounding universe and the natural forces that impact our world adds value to our daily lives and provides the basis for interesting careers in a broad range of disciplines: astronomy, geology, meteorology and oceanography. Begin studies for an advanced degree leading to positions with government agencies or private industry as an independent consultant, teacher, or researcher.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Earth Sciences - AS-T** (lowercolumbia.edu/program-maps/stem/AST-Earth-Sciences)

Degree Requirements

- **Communications:**
5 credits - ENGL& 101 English Composition I.
- **Quantitative / Symbolic Reasoning Skills:**
10 credits – MATH& 151* Calculus I AND MATH& 152* Calculus II.
- **Humanities / Social Sciences:**
15 credits – Selected from at least three disciplines from the Distribution List. A minimum of 5 credits in Humanities, and a minimum of 5 credits in Social Science, and an additional 5 credits in either Humanities or Social Science.
- **Diversity:**
5 credits – From the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title. Example: SPAN& 121 – Introduction to Spanish I:DIV.
- **Electives:**
At least 10 additional college-level credits to meet the 90 credit minimum. These remaining credits must include program advisor approved credits.

Pre-Major Requirements (50 credits)

CHEM& 161*	General Chemistry w/Lab I	5
CHEM& 162*	General Chemistry w/Lab II	5

CHEM& 163*	General Chemistry w/Lab III	5
ERSI 104	Intro to Earth Sciences	5
GEOL& 101	Intro Physical Geology	5
OCEA& 101	Intro to Oceanography OR	5
GEOL 118	Historical Geology	
MATH& 153*	Calculus III OR	5
MATH& 146	Introduction to Statistics	
PHYS& 221*	Engr Physics I w/Lab	5
PHYS& 222*	Engr Physics II w/Lab	5
PHYS& 223*	Engr Physics III w/Lab	5

Recommended Electives

MATH& 141	Precalculus I	5
MATH& 142	Precalculus II	5
ASTR& 101	Intro to Astronomy	5
OCEA& 101	Intro to Oceanography	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total transferable credits required to earn this degree: 90 with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

*It is recommended that sequence courses be completed at one institution.

Students completing this program should acquire the following skills and abilities:

- Interpret and use various kinds of maps, globes, charts, and graphs.
- Apply scientific knowledge and techniques to current environmental issues.
- Describe basic earth processes in an interdisciplinary context.
- Effectively communicate earth sciences concepts.
- Demonstrate familiarity with global and regional geology and geography.

Revised February 2020 (Effective Winter 2020)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor *and* for checking specific major

requirements of baccalaureate institutions in the year prior to transferring. Consult the LCC catalog for LCC graduation requirements.

Most four-year universities require one year of a single foreign language as a graduation requirement.

Associate in Arts - Direct Transfer Agreement (AA-DTA)

Earth Sciences Focus

Knowledge about the planet we inhabit, the surrounding universe and the natural forces that impact our world adds value to our daily lives and provides the basis for interesting careers in a broad range of disciplines: astronomy, geology, meteorology and oceanography. Begin studies for an advanced degree leading to positions with government agencies or private industry as an independent consultant, teacher, or researcher.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Earth Sciences - AA-DTA (lowercolumbia.edu/program-maps/stem/AADTA-Earth-Sciences)**

Degree Requirements

- **Communications:**

15 credits - ENGL& 101 English Composition I AND ENGL& 102 Composition II AND CMST& 220 (was SPCH 110) Public Speaking OR CMST& 230 (was SPCH 114) Small Group Communication

- **Quantitative / Symbolic Reasoning Skills:**

5 credits – MATH& 107 or higher with the exception of MATH& 131.

- **Humanities:**

15 credits – Selected from at least two disciplines on the Distribution List. No more than 5 credits in foreign language at the 100 level, no more than 10 credits from any one discipline. No more than 5 credits in performance/skills courses are allowed. Drawing or photography recommended.

- **Social Sciences:**

15 credits – Selected from at least two disciplines on the Distribution List. No more than 10 credits from any one discipline.

- **Natural Sciences:**

15 credits – Selected from at least two disciplines on the Distribution List; must include 5 credits of lab courses. At least 10 credits in physical, biological and/or earth sciences. No more than 5 credits from Computer Science, Mathematics, and Engineering. Courses used to satisfy this requirement may not be used to satisfy the Quantitative Skills requirement. ANTH& 205, BIOL& 100 and 5 additional credits from physical and/or earth science are recommended. BIOL& 100 meets the laboratory requirement.

- **Diversity:**

5 credits – From the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title. Example: SPAN& 121 – Intro to Spanish I:DIV.

- **Electives:**

25 credits - See advisor for approved list of electives. No more than 15 credits may be taken from the Restricted Course List.

Recommended Natural Sciences and/or Electives

ASTR& 101	Intro to Astronomy	5
BIOL 130	Biodiversity of Pacific Northwest	5
CHEM& 161*	General Chemistry w/Lab I	5
CHEM& 162*	General Chemistry w/Lab II	5
CHEM& 163*	General Chemistry w/Lab III	5
ERSI 104	Introduction to Earth Sciences	5
GEOL& 101	Intro to Physical Geology	5
GEOL 118	Historical Geology	5
OCEA& 101	Intro to Oceanography	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total transferable credits required to earn this degree: 90 in courses numbered 100 or above with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

*It is recommended that sequence courses be completed at one institution.

MATH& 141 and 142 are highly recommended.

Students completing this program should acquire the following skills and abilities:

AA DTA Outcomes

Upon the completion of the AA DTA, students will be prepared for transfer to a four-year institution for the student's intended career pathway, and have the following skills and abilities:

Global Skills (assessed at degree level):

- Communication: Express ideas and information in writing and speaking in a manner that is clear and appropriate to the audience, and read and listen effectively.
- Critical thinking: Apply objective, valid methods of inquiry and problem-solving to draw rational, ethical, and coherent conclusions.
- Interpersonal relations: Interact effectively with individuals and/or within groups.
- Numeracy: Achieve competency with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills in practical and abstract contexts.

General education outcomes (assessed at course level):

- Diversity: Examine the causes and expressions of difference, power, and discrimination.
- Humanities: Explore how people process, document, and express their social and cultural experience.
- Social Science: Examine society, behavior, and relationships among individuals within a society.
- Natural Science: Develop familiarity with various aspects of the physical world and scientific explanations of observed phenomena.

Area of study outcomes:

- Interpret and use various kinds of maps, globes, charts, and graphs.
- Apply scientific knowledge and techniques to current environmental issues.
- Describe basic earth processes in an interdisciplinary context.
- Effectively communicate earth sciences concepts.
- Demonstrate familiarity with global and regional geology and geography.

Revised June 2019**Notes:**

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor *and* with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements.

Most four-year universities require one year of a single foreign language as a graduation requirement.

Associate in Arts - Direct Transfer Agreement (AA-DTA)**Economics Focus**

Study the use of resources in relation to the production and distribution of wealth. Economics is important for those interested in a career in business, law, finance,

government service and social service. Prepare to transfer to a baccalaureate institution in a variety of fields of study.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Economics - AA-DTA** (lowercolumbia.edu/program-maps/social-science/AADTA-Economics)

Degree Requirements

- **Communications:**

15 credits - ENGL& 101 English Composition I AND ENGL& 102 Composition II AND CMST& 220 (was SPCH 110) Public Speaking OR CMST& 230 (was SPCH 114) Small Group Communication.

- **Quantitative / Symbolic Reasoning Skills:**

5 credits - MATH& 107 or higher (excluding MATH& 131)

- **Humanities:**

15 credits – Selected from at least two disciplines on the Distribution List. No more than 5 credits in foreign language at the 100 level, no more than 10 credits from any one discipline. No more than 5 credits in performance/skills courses are allowed.

- **Natural Sciences:**

15 credits – Selected from at least two disciplines on the Distribution List; must include 5 credits of lab courses. At least 10 credits in physical, biological and/or earth sciences. No more than 5 credits from Computer Science, Mathematics, and Engineering. Courses used to satisfy this requirement may not be used to satisfy the Quantitative Skills requirement. ANTH& 205, BIOL& 100 and 5 additional credits from physical and/or earth science are recommended. BIOL& 100 meets the laboratory requirement.

- **Social Sciences:**

15 credits – Selected from at least two disciplines on the Distribution List. No more than 10 credits from any one discipline. PSYC, SOC, and POLS are recommended.

- **Diversity:**

5 credits – from the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title. Example: SOC& 101 Introduction to Sociology:DIV.

- **Electives:**

25 credits - See advisor for approved list of electives. No more than 15 credits may be taken from the Restricted Course List on the Distribution List.

Recommended Electives

ACCT& 201	Principles of Accounting I	5
ACCT& 202	Principles of Accounting II	5
ECON 105	Introduction to Economics	5

ECON& 201	Micro Economics	5
ECON& 202	Macro Economics	5
HIST& 137	U.S. History 2	5
MATH& 151	Calculus I	5
MATH& 152	Calculus II	5
POLS& 202	American Government	5
POLS& 203	International Relations	5
PSYC& 100	General Psychology	5

iversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total transferable credits required to earn this degree: 90 in courses numbered 100 or above with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

Students completing this program should acquire the following skills and abilities:

AA DTA Outcomes

Upon the completion of the AA DTA, students will be prepared for transfer to a four-year institution for the student's intended career pathway, and have the following skills and abilities:

Global Skills (assessed at degree level):

- **Communication:** Express ideas and information in writing and speaking in a manner that is clear and appropriate to the audience, and read and listen effectively.
- **Critical thinking:** Apply objective, valid methods of inquiry and problem-solving to draw rational, ethical, and coherent conclusions.
- **Interpersonal relations:** Interact effectively with individuals and/or within groups.
- **Numeracy:** Achieve competency with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills in practical and abstract contexts.

General education outcomes (assessed at course level):

- **Diversity:** Examine the causes and expressions of difference, power, and discrimination.
- **Humanities:** Explore how people process, document, and express their social and cultural experience.
- **Social Science:** Examine society, behavior, and relationships among individuals within a society.

- **Natural Science:** Develop familiarity with various aspects of the physical world and scientific explanations of observed phenomena.

Area of study outcomes:

- Define scarcity and apply to the processes of production, distribution, and exchange.
- Define opportunity costs. Analyze the relationships between scarcity, costs, and the necessity for economic outcomes.
- Analyze market exchange through the equilibrium process and identify, describe, and explain price and output determination.
- Apply market exchange between individuals, business, government, and foreign markets to the economic choices available to individuals and society.
- Use economic models and theories to analyze economic data to draw logical conclusions about economic problems.
- Examine the impact of economic analysis on contemporary issues.

Revised June 2019

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor *and* with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements.

Most four-year universities require one year of a single foreign language as a graduation requirement.

Associate in Applied Science (AAS)

Education

Pathway to LCC BAS-TE and BAS-OLTM

This program provides students with both academic coursework and field experience necessary to become a paraeducator in the K-12 educational system. The program allows the student to experience working with students and mentor teachers. The program includes teaching methods in supporting social skills development, mathematics, science, and the arts. Emphasis is placed on educational foundations, child development, families, communities, schools and other agencies. EDUC& 101 meets the state's required 28-hour Fundamental Course of Study for para educators.

This two-year program is a pipeline to LCC's Bachelor of Applied Science in Teacher Education degree and meets the academic requirements to apply for admittance into LCC's Bachelor of Applied Science degree in Organizational Leadership and Technical Management which prepares professionals for positions in leadership, technical management and supervision.

Students in the Education program must be able to pass the required school district background clearance and have proof of required immunizations.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Education - AAS (lowercolumbia.edu/program-maps/education/AAS-Education)**

Degree Requirements

- **Communications:**
10 credits - ENGL& 101 English Composition I AND CMST& 220 Public Speaking
- **Quantitative Skills:**
10 credits – MATH& 132 Math for Elementary Educators 2
- **Humanities:**
5 credits - CMST& 210 Interpersonal Communication OR ENGL 270 Literature for Children recommended
- **Natural Sciences:**
10 credits - MATH& 131 Math for Elementary Educators 1 and Natural Science with a Lab/Choose from the Distribution List
- **Social Sciences:**
10 credits – HIST& 136 US History I OR HIST& 137 US History II AND EDUC& 115 Child development
- **Diversity:**
5 credits – EDUC& 205 Intro to Education with Field Experience: DIV is required

Program Requirements

EDUC& 101	Paraeducator Basics	3
EDUC& 130	Guiding Behavior	3
EDUC& 150	Child/Family/Community	3
EDUC 191	Field Experience I	5
EDUC& 204	Inclusive Education: Birth-21 Focus	5
EDUC 230	Social Skill Development & Trauma Informed Teaching	5
EDUC 240	Diversity in Education	5
EDUC 246	Linguistically Diverse Education	5
EDUC 291	Field Experience II	5
ECED 225	STEAM in Early Childhood	5
CS 110	Intro to Microcomputer Applications	3

SUDS 114	Suicide Assessment, Prevention, and Crisis Management	2
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Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 94 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.

Students completing this program should acquire the following skills and abilities:

- Develop effective relationships with students, families and colleagues. (GS - Teamwork)
- Provide behavioral support using social emotional learning (SEL) strategies. (GS - Critical Thinking)
- Develop individualized instructional practices. (GS - Critical Thinking)
- Collect and analyze data obtained through assessments. (GS - Quantitative Literacy)
- Develop culturally responsive instructional strategies.

March 2023 (Effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Associate in Arts - Direct Transfer Agreement (AA-DTA)

Education Focus

This program provides students with academic coursework necessary to transfer into a bachelor's degree in a field of study related to education and early learning. The program sets the foundation for education methods and theory classes and includes recommendations for specific electives to meet teacher preparation program requirements at WSU-V and LCC's BAS-TE. For specific transfer requirements, please contact your transfer institution or meet with an LCC advisor.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Education - AA-DTA** (lowercolumbia.edu/program-maps/education/AADTA-Education)

Degree Requirements

- **Communications:**

15 credits - ENGL& 101 English Composition I AND ENGL& 102 Composition II AND CMST& 220 Public Speaking OR CMST& 230 Small Group Communication.

- **Quantitative Skills:**

5 credits – MATH& 107 or higher. MATH& 132 recommended.

- **Humanities:**

15 credits – Selected from at least two disciplines on the Distribution List. No more than 5 credits in foreign language at the 100 level, no more than 10 credits from any one discipline. No more than 5 credits in performance/skills courses are allowed. HIST& 126 recommended.

- **Natural Sciences:**

15 credits – Selected from at least two disciplines on the Distribution List; must include 5 credits of lab courses. At least 10 credits in physical, biological and/or earth sciences. No more than 5 credits from Computer Science, Mathematics, and Engineering. Courses used to satisfy this requirement may not be used to satisfy the Quantitative Skills requirement. BIOL& 100 or BIOL& 160 and GEOL& 101 recommended.

- **Social Sciences:**

15 credits – Selected from at least two disciplines on the Distribution List. No more than 10 credits from any one discipline. EDUC& 115, HIST& 136 OR HIST& 137 and PSYC& 200 recommended.

- **Diversity:**

5 credits – From the Diversity Course List. Can be used to meet other requirements. EDUC& 205 recommended.

- **Electives:**

25 credits - See advisor for approved list of electives for your transfer institution. No more than 15 credits may be taken from the Restricted Course List. POLS& 202, MATH& 131, ASTR& 101 and ENVS 215 recommended for WSU-V. EDUC& 150 recommended for LCC BAS-TE.

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total transferable credits required to earn this degree: 90 in courses numbered 100 or above with a cumulative grade point average (GPA) of at least 2.0.

Students completing this program should acquire the following skills and abilities:

AA DTA Outcomes

Upon the completion of the AA DTA, students will be prepared for transfer to a four-year institution for the student's intended career pathway, and have the following skills and abilities:

Global Skills (assessed at degree level):

- Communication: Express ideas and information in writing and speaking in a manner that is clear and appropriate to the audience and read and listen effectively.
- Critical thinking: Apply objective, valid methods of inquiry and problem-solving to draw rational, ethical, and coherent conclusions.
- Interpersonal relations: Interact effectively with individuals and/or within groups.
- Numeracy: Achieve competency with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills in practical and abstract contexts.

General education outcomes (assessed at course level):

- Diversity: Examine the causes and expressions of difference, power, and discrimination.
- Humanities: Explore how people process, document, and express their social and cultural experience.
- Social Science: Examine society, behavior, and relationships among individuals within a society.
- Natural Science: Develop familiarity with various aspects of the physical world and scientific explanations of observed phenomena.

Revised May 2023 (Effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor *and* with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements.

Most four-year universities require one year of a single foreign language as a graduation requirement.

Certificate of Proficiency (COP)**Engineering Technician**

An engineering technician provides technical support to an engineer, and may work in the fields of mechanical, industrial, civil, electrical, aerospace, computer, or environmental engineering. They assist engineers with research and development, computer aided drafting, quality control or design. They may also work alongside scientists or as quality assurance inspectors. Engineering technicians need the ability to work well on a team, and have strong analytical and problem-solving skills. In this program students learn to use math and science skills to assist engineers with creating products, improving manufacturing methods and maintaining assembly systems.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Engineering Technician - COP** (lowercolumbia.edu/program-maps/trades/COP-Engineering-Technician)

Certificate Requirements

- **Communications:**
5 credits – ENGL& 101 English Composition I OR ENGL 110 Industrial Communications (recommended)
- **Quantitative Skills:**
5 credits – MATH 106 Industrial Mathematics
- **Human Relations / Social Science:**
5 credits – BUS 144 Management of Human Relations

Program Requirements

BLPT 150 <i>OR</i> BLPT 160	Machinists Blueprint Reading <i>OR</i> Blueprint Reading for Welders	5
BTEC 131	Introduction to Spreadsheets	5
CS 110	Intro to Microcomputer Apps	3
COLL 289	Employment Portfolio Seminar	1
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
ENGR& 121	Engineering Graphics I	3
ENGR& 122	Engineering Graphics II	3
ENGR& 123	Engineering Graphics III	3
MFG 105	Industrial Safety	3
MFG 130	Materials Science	5
MFG 230	Computer Integrated Manufacturing	4
MFG 288	Cooperative Work Experience	2*

*MFG 299 Independent Study may be substituted for MFG 288 with faculty program advisor permission.

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this certificate: 53.

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to an industrial technology work environment (GS).
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS).
- Apply mathematical information to perform tasks in industrial technology (GS).
- Interact effectively with individuals and groups (GS).
- Display work appropriate behavior including positive attitude, timeliness and teamwork.
- Apply industry standard safety and hazardous material handling guidelines.
- Apply knowledge of computer programs to create professional, academic, or business documents following current industry standards.
- Interpret blueprints, diagrams and schematics associated with various manufacturing processes.
- Apply knowledge of properties of industrial influence and the selection of primary materials and conversion into useful products.
- Demonstrate competency in manual drafting and engineering graphics software.

Revised March 2021 (Effective Fall 2021)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Associate in Arts - Direct Transfer Agreement (AA-DTA)

English Focus

Courses in composition, creative writing and literature teach essential skills for clear written communication and provide insight into past and present cultures across the world. Prepare for transfer to a bachelor's degree program leading to possible careers in professional writing, journalism, teaching and related fields.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **English - AA-DTA** (lowercolumbia.edu/program-maps/arts/AADTA-English)

Degree Requirements

- **Communications:**

15 credits - ENGL& 101 English Composition I AND ENGL& 102 Composition II AND CMST& 220 (was SPCH 110) Public Speaking OR CMST& 230 (was SPCH 114) Small Group Communication.

- **Quantitative/Symbolic Reasoning Skills:**

5 credits – MATH& 107 or higher (excluding MATH& 131).

- **Humanities:**

15 credits – Selected from at least two disciplines on the Distribution List. No more than 5 credits in foreign language at the 100 level, no more than 10 credits from any one discipline. No more than 5 credits in performance/skills courses are allowed.

- **Natural Sciences:**

15 credits – Selected from at least two disciplines on the Distribution List; must include 5 credits of lab courses. At least 10 credits in physical, biological and/or earth sciences. No more than 5 credits from Computer Science, Mathematics, and Engineering. Courses used to satisfy this requirement may not be used to satisfy the Quantitative Skills requirement.

- **Social Sciences:**

15 credits – Selected from at least two disciplines on the Distribution List. No more than 10 credits from any one discipline.

- **Diversity:**

5 credits – From the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title. Example: SOC& 101 – Introduction to Sociology:DIV.

- **Electives:**

25 credits - See advisor for approved list of electives. No more than 15 credits may be taken from the Restricted Course List.

Recommended Electives

ENGL 108	Introduction to Literature	5
ENGL 140	Intro to Women Writers:DIV	5
ENGL 231	Creative Writing	5
ENGL 232	Creative Writing	5
ENGL 233	Creative Writing	5
ENGL 245	Contemporary Literature:DIV	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total transferable credits required to earn this degree: 90 in courses numbered 100 or above with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

Students completing this program should acquire the following skills and abilities:

AA DTA Outcomes

Upon the completion of the AA DTA, students will be prepared for transfer to a four-year institution for the student's intended career pathway, and have the following skills and abilities:

Global Skills (assessed at degree level):

- Communication: Express ideas and information in writing and speaking in a manner that is clear and appropriate to the audience, and read and listen effectively.
- Critical thinking: Apply objective, valid methods of inquiry and problem-solving to draw rational, ethical, and coherent conclusions.
- Interpersonal relations: Interact effectively with individuals and/or within groups.
- Numeracy: Achieve competency with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills in practical and abstract contexts.

General education outcomes (assessed at course level):

- Diversity: Examine the causes and expressions of difference, power, and discrimination.
- Humanities: Explore how people process, document, and express their social and cultural experience.
- Social Science: Examine society, behavior, and relationships among individuals within a society.
- Natural Science: Develop familiarity with various aspects of the physical world and scientific explanations of observed phenomena.

Area of study outcomes:

- Students will be able to write an academic essay supporting a central assertion with appropriate evidence drawn from their own research.
- Students will develop an individual voice through a writing and editing process that involves the conscious consideration of critical audience responses.
- Students in literature courses will demonstrate an understanding of the fundamental characteristics of literature, such as plot and setting.
- Students will analyze literature from a variety of perspectives.
- Students of foreign language will be able to communicate in writing and in speech in the target language, and will demonstrate an awareness of the interaction between English-speaking culture and the cultures of the target language.

Revised July 2018

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor *and* with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements.

Most four-year universities require one year of a single foreign language as a graduation requirement.

Associate in Science - Transfer (AS-T)

Environmental Science

Today's environmental problems call for people who are educated in more than one discipline, highly trained in scientific and technical skills, and aware of the ecological, political, economic, and social dimensions of environmental decisions. The Associate in Science-Transfer (AS-T) degree in Environmental Science provides a foundation in basic physical, biological, and social sciences, and also addresses the human element in environmental issues. This curriculum prepares students to transfer and complete a BS or BA in an Environmental Science field for subsequent graduate study in MS, PhD, and law degree programs and careers in government agencies or the private sector.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Environmental Science - AS-T (lowercolumbia.edu/program-maps/stem/AST-Environmental-Science)**

Degree Requirements

- **Communications:**
5 credits - ENGL& 101 English Composition I.
- **Quantitative / Symbolic Reasoning Skills:**
10 credits – MATH& 151* Calculus I AND MATH& 152* Calculus II.
- **Humanities / Social Sciences:**
15 credits – Selected from at least three disciplines on the Distribution List. A minimum of 5 credits in Humanities, and a minimum of 5 credits in Social Science, and an additional 5 credits in either Humanities or Social Science.
- **Diversity:**
5 credits – from the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title.
- **Electives:**
15 credits - These remaining credits must include program advisor approved credits.

Pre-Major Requirements (45 credits)

BIOL& 221*	Majors Ecology/Evolution: w/Lab	5
BIOL& 222*	Majors Cell/Molecular: w/ Lab	5
BIOL& 223*	Majors Organismal Phys: w/ Lab	5
CHEM& 161*	General Chemistry w/Lab I	5
CHEM& 162*	General Chemistry w/Lab II	5
CHEM& 163*	General Chemistry w/Lab III	5
ENVS& 100	Survey of Environmental Science	5
ENVS 215	Environmental Issues	5
MATH& 153*	Calculus III OR	5
MATH& 146	Introduction to Statistics	

Recommended Electives

BIOL 130	Biodiversity of the Pacific Northwest	5
BIOL& 260	Microbiology	5
GEOG 105	Physical Geography	5
GEOL 118	Historical Geology	5
GEOL& 208	Geology of Pacific Northwest	5
OCEA& 101	Intro to Oceanography	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total transferable credits required to earn this degree: 90 with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

* It is recommended that sequence courses be completed at one institution.

Students completing this program should acquire the following skills and abilities:

- Familiarity with the (empirical) scientific method of problem solving.
- Perform competitively with peers at four-year institutions or professional programs.
- Express ideas and information in writing in a format that is clear and appropriate to a science-literate audience.
- Ability to apply various techniques and processes using information, data, and situation, to draw logical, rational and ethical and coherent conclusions.
- Competent with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills in practical and abstract contexts.

Revised August 202 (Effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor *and* for checking specific major requirements of baccalaureate institutions in the year prior to transferring. Consult the LCC catalog for LCC graduation requirements.

Most four-year universities require one year of a single foreign language as a graduation requirement.

Certificate of Completion (COC)

Fitness Specialist

Provides the content and experience for students to acquire a firm foundation for a career as a personal trainer or group exercise instructor working within athletic clubs, starting their own business, or working with community health and fitness organizations. This certificate can be taken independently, or in conjunction with a DTA program as part of a two-year preparation to transfer to a four-year university. With the completion of this program, students will be set up to take the NCAA-accredited Personal Trainer Exam and/or Group Exercise Exam through the American Council on Exercise (ACE) to become a certified personal trainer and/or group exercise instructor.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Health and Fitness - AA-DTA (with Fitness Specialist Certificate) (lowercolumbia.edu/program-maps/health/AADTA-Health-and-Fitness)**

Program Requirements

HLTH 105	First Aid and CPR	1
PHED 285	Fitness Marketing	3
HLTH 245	Health and Exercise Behavior Change	3
HLTH 135 - OR NUTR& 101	Food and Fitness - OR Nutrition	2 5
BIOL 179	Human Biology and Exercise	5
PHED 288	Cooperative Education (Internship)	1
COLL 289	Employment Portfolio	1
PHED 295 - AND/OR PHED 296	Personal Training Instruction - AND/OR Group Fitness Instructor Course	3

Recommended Electives

HLTH 106	Health and Wellness	2
PHED 171	Prevention and Care of Athletic Injuries	3
	PHED Activity Courses	

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 19 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.

Students completing this program should acquire the following skills and abilities:

- Apply knowledge of human anatomy, exercise physiology, kinesiology and nutrition to prescribing fitness programs specific to individual needs.
- Understand the basics of marketing and motivational approaches to reaching potential clients.
- Design and successfully lead individuals, small groups, and classes in fitness instruction while addressing all components of fitness.

Created February 2020 (Effective Spring 2020)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Associate in Arts - Direct Transfer Agreement (AA-DTA)

General AA-DTA

Earn a degree completely online at Lower Columbia College! If you need to fit classes in to your busy home or work life, or don't live near Lower Columbia College, our ONLINE degree program may be the option for you.

Not all online courses are taught every quarter. View the online quarterly schedule to find the online/distance ed courses for the quarter. (Select current or upcoming Class Schedule. Click on "D" or "O", and then click on ONLINE to view only online classes.)

Degree Requirements

- **Communications:**

15 credits - ENGLISH 101 and ENGLISH 102. Choose one from COMMUNICATION STUDIES 220 or COMMUNICATION STUDIES 230.

- **Quantitative Skills:**

5 credits – Intermediate Algebra Proficiency required. Choose one of the following: MATH& 107 or higher with the exception of MATH& 131

- **Humanities:**

15 credits – Select from at least two disciplines from the following: No more than 5 credits in foreign language at the 100 level, no more than 10 credits from any one discipline. No more than 5 credits in performance/skills courses (indicated by *): ART& 100, ART 101*, 102*, 103*, 106*, 107*, 108*, 111*, 112*, 113*, 130, 151*, 152*, 154*, 157*, 158*, 162, 214, 224, 226, 227, 228, 241*, 242*, 243*, AMERICAN SIGN LANGUAGE 121, 122, 123, CHINESE 121, 122, 123, COMMUNICATION STUDIES 210, 220, 230, 240, 250, DANCE 100*, 105*, 110*, 151*, 152*, 153*, 251*, 252*, 253*, DRAMA 106*, 107*, 108*, DRAMA& 101, ENGLISH 106, 108, 124*, 125*, 126*, 140, 204, 205, 215, 221, 222, 224*, 225*, 226*, 231, 232, 233, 234, 245, 246, 251, 252, 254, 255, 256, 260, 270, 280, ENGL& 244, HISTORY 116, 126, HUMANITIES 104, 107, 150, 164, 210, 230, 250, 251, 255, HUM& 116, 117, 118, MUSIC 100, 106, 107, 108, 115*, 117, 119, 121*, 122*, 123*, 130*, 131*, 132*, 133*, 134*, 135*, 145, 150*, 151*, 152*, 153*, 176*, 177*, 178*, 206, 207, 208, 209, 221*, 222*, 223*, 251*, 252*, 253*, 276*, 277*, 278*, MUSC& 105, 141, 142, 143, 241, 242, 243, PHILOSOPHY 260, PHIL& 101, SPANISH 121, 122, 123, 221, 222, 223

• **Social Science:**

15 credits - Select from at least two disciplines from the following: ANTHROPOLOGY 100, 204, 206, BUSINESS 101, 201, CHEMICAL DEPENDENCY 101, CRIMINAL JUSTICE 101, 110, ECONOMICS 104, 105, ECON& 201, 202, EDUCATION 115, HISTORY 117, 127, 128, 136, 137, 205, 214, 215, 254, POLITICAL SCIENCE 101, 202, 203, 204, 220, PSYCHOLOGY 100, 150, 198, 200, 204, 214, 220, 250, 255, 298, SOCIOLOGY 101, 210, 225

• **Natural Science:**

15 credits – Selected from at least two disciplines on the Distribution List; must include 5 credits of lab courses (indicated by **). At least 10 credits in physical, biological and/or earth sciences. No more than 5 credits from Computer Science, Mathematics, and Engineering. Courses used to satisfy this requirement may not be used to satisfy the Quantitative Skills requirement. PHYSICAL SCIENCES: CHEMISTRY 110**, 121**, 131**, 161**, 162**, 163**, 231**, 261**, 262**, 263**, PHYSICS 100**, 114**, 115**, 116**, 221**, 222**, 223**, PHYSICAL SCIENCE 108**, 109**, BIOLOGICAL SCIENCES: ANTHROPOLOGY 205, BIOLOGY 100**, 109**, 130**, 150**, 160**, 179**, 221**, 222**, 223**, 241**, 242**, 260**, 297, 298, NUTR& 101, EARTH SCIENCES: ASTRONOMY 101**, EARTH SCIENCE 104**, 105**, 109**, ENVIRONMENTAL SCIENCE 150, 215**, GEOGRAPHY 105**, GEOLOGY 101**, 105**, 118**, 124, 208**, OCEANOGRAPHY 101**, GENERAL SCIENCES: BUSINESS 207, COMPUTER SCIENCE 270, ENGINEERING 106, 210, MATH 107, 125, 131, 132, 141, 142, 146, 148, 151, 152, 153, 211, 215, 220, 240, 246, 254

• **Electives:**

25 credits – See advisor for approved list of electives. No more than 15 credits may be taken from the Restricted Course List. See Distribution List for Restricted Course List.

• **Diversity:**

5 credits – Courses that meet this requirement may also be used toward other graduation requirements. The following courses meet the Diversity requirement: AMERICAN SIGN LANGUAGE 123, ANTHROPOLOGY 100, 206, ART 100, 224, 227, 228, BUSINESS 144, BUSINESS TECHNOLOGY 165, CHINESE 121, 122, 123, COMMUNICATION STUDIES 240, 250, EDUCATION 205, ENGLISH 140, 245, 246, 280, ENVIRONMENTAL SCIENCE 150, HISTORY 126, 127, 128, 205, 215, HUMANITIES 104, 164, 210, MUSIC 117, 119, 209, SOCIOLOGY 101, 210, 225, SPANISH 121, 122, 123

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 90 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.

AA DTA Outcomes

Upon the completion of the AA DTA, students will be prepared for transfer to a four-year institution for the student's intended career pathway, and have the following skills and abilities:

Global Skills (assessed at degree level):

- **Communication:** Express ideas and information in writing and speaking in a manner that is clear and appropriate to the audience, and read and listen effectively.
- **Critical thinking:** Apply objective, valid methods of inquiry and problem-solving to draw rational, ethical, and coherent conclusions.
- **Interpersonal relations:** Interact effectively with individuals and/or within groups.
- **Numeracy:** Achieve competency with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills in practical and abstract contexts.

General education outcomes (assessed at course level):

- **Diversity:** Examine the causes and expressions of difference, power, and discrimination.
- **Humanities:** Explore how people process, document, and express their social and cultural experience.
- **Social Science:** Examine society, behavior, and relationships among individuals within a society.
- **Natural Science:** Develop familiarity with various aspects of the physical world and scientific explanations of observed phenomena.

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Associate in Arts - Direct Transfer Agreement (AA-DTA)**General AA-DTA Online**

Earn a degree completely online at Lower Columbia College! If you need to fit classes in to your busy home or work life, or don't live near Lower Columbia College, our ONLINE degree program may be the option for you.

Not all online courses are taught every quarter. View the online quarterly schedule to find the online/distance ed courses for the quarter. (Select current or upcoming Class Schedule. Click on "D" or "O", and then click on ONLINE to view only online classes.)

Degree Requirements**• Communications:**

15 credits - ENGLISH 101 and ENGLISH 102. Choose one from COMMUNICATION STUDIES 220 or COMMUNICATION STUDIES 230.

- **Quantitative Skills:**

5 credits – Intermediate Algebra Proficiency required. Choose one of the following: MATH& 107 or higher with the exception of MATH& 131

- **Humanities:**

15 credits – Select from at least two disciplines from the following: No more than 5 credits in foreign language at the 100 level, no more than 10 credits from any one discipline. No more than 5 credits in performance/skills courses (indicated by *): ART& 100, ART 224, 226 227, 228, COMMUNICATION STUDIES& 210, 220, 230, DRAMA& 101, ENGLISH 204, 270, 280, HUMANITIES 104, 210, 230, 250, 255, HUM& 117, MUSIC 117, 119, 145, 209, MUSC& 105, PHILOSOPHY& 101, SPANISH& 121, 122, 123, 221, 222, 223

- **Social Science:**

15 credits – Select from at least two disciplines from the following: No more than 10 credits in any one discipline: BUSINESS& 101, 201, CHEMICAL DEPENDENCY 101, CRIMINAL JUSTICE& 110, ECONOMICS 105, ECON& 201, 202, EDUCATION& 115, HISTORY& 128, 136, 137, 205, 254, POLITICAL SCIENCE& 202, PSYCHOLOGY& 100, 150, 200, 255

- **Natural Science:**

15 credits – Selected from at least two disciplines on the Distribution List; must include 5 credits of lab courses. At least 10 credits in physical, biological and/or earth sciences. No more than 5 credits from Computer Science, Mathematics, and Engineering. Courses used to satisfy this requirement may not be used to satisfy the Quantitative Skills requirement: CHEMISTRY 110**, 121**, BIOLOGY 100**, 160**, 241**, 242**, 260**, NUTRITION& 101, EARTH SCIENCE 105**, ENVIRONMENTAL SCIENCE 150, GEOLOGY& 208**, OCEANOGRAPHY& 101**, MATH& 107, 146, 148, MATH 125, 246

- **Electives:**

See advisor for approved list of electives. No more than 15 credits may be taken from the Restricted Course List. See Distribution List for Restricted Course List.

- **Diversity:**

Courses that meet this requirement may also be used toward other graduation requirements. The following courses meet the Diversity requirement: ART& 100, ART 224, 227, 228, BUSINESS 144, ENGLISH 280, ENVIRONMENTAL SCIENCE 150, HISTORY 128, 205, HUMANITIES 104, 210, MUSIC 117, 119, 209, SOCIOLOGY 101, SPANISH 121, 122, 123

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 90 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.

AA DTA Outcomes

Upon the completion of the AA DTA, students will be prepared for transfer to a four-year institution for the student's intended career pathway, and have the following skills and abilities:

Global Skills (assessed at degree level):

- **Communication:** Express ideas and information in writing and speaking in a manner that is clear and appropriate to the audience, and read and listen effectively.
- **Critical thinking:** Apply objective, valid methods of inquiry and problem-solving to draw rational, ethical, and coherent conclusions.
- **Interpersonal relations:** Interact effectively with individuals and/or within groups.
- **Numeracy:** Achieve competency with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills in practical and abstract contexts.

General education outcomes (assessed at course level):

- **Diversity:** Examine the causes and expressions of difference, power, and discrimination.
- **Humanities:** Explore how people process, document, and express their social and cultural experience.
- **Social Science:** Examine society, behavior, and relationships among individuals within a society.
- **Natural Science:** Develop familiarity with various aspects of the physical world and scientific explanations of observed phenomena.

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Certificate of Proficiency (COP)

General Business

The General Business Certificate Program prepares students for entry-level employment in a variety of business support positions. The program generally can be completed within one academic year. Students may enter the program in the fall, winter or spring quarter.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **General Business – COP** (lowercolumbia.edu/program-maps/business/COP-General-Business)

Certificate Requirements

- **Communications:**
5 credits - ENGL& 101 English Composition I OR BUS 119 Business Communications.
- **Quantitative Skills:**
5 credits – BUS 104 Business Math Applications.
- **Human Relations / Social Science**
5 credits – BUS 144 Management of Human Relations.

Program Requirements

ACCT 101	Intro to Accounting Concepts	5
BTEC 146	PowerPoint Fundamentals	1
BTEC 149	Internet Fundamentals	1
BUS& 101	Introduction to Business	5
BUS 150	Customer Service/ Management	5
BUS 165	Salesmanship	5
CS 110	Intro to Microcomputer Apps	3
BTEC 131 (was CS 121)	Intro to Spreadsheets	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this certificate: 45

Students completing this program should acquire the following skills and abilities:

- Articulate the relationship between human behavior, customer service, and business outcomes.
- Perform basic bookkeeping and accounting tasks using spreadsheets and industry standard accounting software.
- Compose written business documents, including email and reports, using industry standard software.
- Identify the relationships between business functions, such as accounting, marketing, purchasing, human resources, and operations management.

- Communicate professionally in writing and speaking as appropriate to a business work environment (GS Communication).
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS Critical Thinking).
- Apply mathematical information to make decisions and solve problems in business (GS Numeracy/Quantitative Literacy).
- Interact effectively with individuals and groups (GS Interpersonal Relations).

Revised February 2021 (Effective Summer 2021)

Notes:

Consult an advisor if you have any questions.

Associate in Arts - Direct Transfer Agreement (AA-DTA)

Health & Fitness Focus

Prepare for careers in health and fitness. After earning a bachelor's degree, or related certificate, graduates can work in careers such as; personal training, group fitness instruction, health coaching, K-12 physical education or health teaching, sports management, athletic training, coaching, exercise science, and recreation.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Health and Fitness - AA-DTA (with Fitness Specialist Certificate) (lowercolumbia.edu/program-maps/health/AADTA-Health-and-Fitness)**

Degree Requirements

- **Communications:**
15 credits - ENGL& 101 English Composition I AND ENGL& 102 Composition II, AND CMST& 220 Public Speaking OR CMST& 230 Small Group Communication.
- **Quantitative/Symbolic Reasoning Skills:**
5 credits of MATH& 107 or higher (with the exception of MATH& 131).
- **Humanities:**
15 credits – Selected from at least two disciplines on the Distribution List. No more than 5 credits in foreign language at the 100 level. No more than 5 credits in performance/skills courses are allowed.
- **Natural Sciences:**
15 credits – Selected from at least two disciplines on the Distribution List; must include 5 credits of lab courses. At least 10 credits in physical, biological and/or earth sciences. No more than 5 credits from Computer Science, Mathematics, and Engineering. Courses used to satisfy this requirement may not be used to satisfy the

Quantitative Skills requirement. It is strongly recommended that NUTR& 101 and BIOL 179 are taken as 10 of the 15 credits for Natural Science. Specific chemistry classes are recommended for students going into nutrition or exercise science. Anatomy and Physiology is recommended for athletic training and exercise science.

- **Social Sciences:**

15 credits – Selected from at least two disciplines on the Distribution List. HIST 214, Sports in American History, is recommended.

- **Diversity:**

5 credits – From the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title. Example: SOC& 101 – Introduction to Sociology:DIV.

- **Electives:**

25 credits - See advisor for approved list of electives. No more than 15 credits may be taken from the Restricted Course List on the Distribution List. No more than 3 PE activity courses may be taken as electives. PE activity courses are marked with a *.

Recommended Electives

COLL 289	Employment Portfolio Seminar	1
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
HLTH 106	Health and Wellness	2
HLTH 245	Health and Exercise Behavior Change	3
*PHED 128/228	Weight Training	2
*PHED 152/252	Personalized Fitness	2
PHED 171	Prevention & Care of Athletic Injuries	3
PHED 285	Fitness Marketing	3
PHED 288	Cooperative Education	1
PHED 295	Personal Training Instruction	3
PHED 296	Group Exercise Instruction	3

Students who complete certain elective credits will also earn their Fitness Specialist Certificate through LCC. See advisor for details.

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Minimum transferable credits required to earn this degree: 90 in courses numbered 100 or above with a cumulative grade point average (GPA) of at least 2.0.

****** No more than 10 credits from any one discipline will be applied to the requirements within a distribution area.

Students completing this program should acquire the following skills and abilities:

AA DTA Outcomes

Upon the completion of the AA DTA, students will be prepared for transfer to a four-year institution for the student's intended career pathway, and have the following skills and abilities:

Global Skills (assessed at degree level):

- **Communication:** Express ideas and information in writing and speaking in a manner that is clear and appropriate to the audience, and read and listen effectively.
- **Critical thinking:** Apply objective, valid methods of inquiry and problem-solving to draw rational, ethical, and coherent conclusions.
- **Interpersonal relations:** Interact effectively with individuals and/or within groups.
- **Numeracy:** Achieve competency with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills in practical and abstract contexts.

General education outcomes (assessed at course level):

- **Diversity:** Examine the causes and expressions of difference, power, and discrimination.
- **Humanities:** Explore how people process, document, and express their social and cultural experience.
- **Social Science:** Examine society, behavior, and relationships among individuals within a society.
- **Natural Science:** Develop familiarity with various aspects of the physical world and scientific explanations of observed phenomena.

Area of study outcomes:

- Students will have a basic understanding of exercise physiology and how various exercises and training routines contribute to strength, endurance, and overall physical health.
- Students will demonstrate proficiency in developing health and fitness goals as well as health and fitness programs catering to individual needs both for themselves and others.
- Students will understand the basics of nutrition and the impact of nutrition on overall health.

- Students will understand the beneficial effects of health and fitness in their personal lives as well as all other aspects of life.

Revised February 2020 (Effective Spring 2020)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements.

Most four-year universities require one year of a single foreign language as a graduation requirement.

Associate in Arts - Direct Transfer Agreement (AA-DTA)

History Focus

The study of history provides an opportunity to explain the development of human societies over time through examination of the records (cultural, economic, political and scientific) of past generations. Transfer studies leading to a bachelor's degree prepares you for government service, legal fields, education and other research careers.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **History - AA-DTA (lowercolumbia.edu/program-maps/social-science/AADTA-History)**

Degree Requirements

• Communications:

15 credits - ENGL& 101 English Composition I AND ENGL& 102 Composition II, AND CMST& 220 (was SPCH 110) Public Speaking OR CMST& 230 (was SPCH 114) Small Group Communication.

• Quantitative / Symbolic Reasoning Skills:

5 credits - MATH& 107 or higher (excluding MATH& 131).

• Humanities:

15 credits – Selected from at least two disciplines on the Distribution List. No more than 5 credits in foreign language at the 100 level, no more than 10 credits from any one discipline. No more than 5 credits in performance/skills courses are allowed. 5 credits of a foreign language recommended.

• Natural Sciences:

15 credits – Selected from at least two disciplines on the Distribution List; must include 5 credits of lab courses. At least 10 credits in physical, biological and/or earth sciences. No more than 5 credits from Computer Science, Mathematics, and Engineering. Courses

used to satisfy this requirement may not be used to satisfy the Quantitative Skills requirement.

- **Social Sciences:**

15 credits – Selected from at least two disciplines on the Distribution List. No more than 10 credits from any one discipline. ECON, HIST, POLS and SOC are recommended courses.

- **Diversity:**

5 credits – From the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title. Example: HIST& 215 – Women in U.S. History:DIV.

- **Electives:**

25 credits - See advisor for approved list of electives. No more than 15 credits may be taken from the Restricted Course List on the Distribution List.

Recommended Electives

HIST& 126	World Civilizations I:DIV	5
HIST& 127	World Civilizations II:DIV	5
HIST& 128	World Civilizations III:DIV	5
HIST& 136	U.S. History 1	5
HIST& 137	U.S. History 2	5
HIST& 215	Women in U.S. History:DIV	5
HIST 254	History of WA & Pacific NW	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Minimum transferable credits required to earn this degree: 90 in courses numbered 100 or above with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

Students completing this program should acquire the following skills and abilities:

AA DTA Outcomes

Upon the completion of the AA DTA, students will be prepared for transfer to a four-year institution for the student's intended career pathway, and have the following skills and abilities:

Global Skills (assessed at degree level):

- **Communication:** Express ideas and information in writing and speaking in a manner that is clear and appropriate to the audience, and read and listen effectively.
- **Critical thinking:** Apply objective, valid methods of inquiry and problem-solving to draw rational, ethical, and coherent conclusions.
- **Interpersonal relations:** Interact effectively with individuals and/or within groups.
- **Numeracy:** Achieve competency with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills in practical and abstract contexts.

General education outcomes (assessed at course level):

- **Diversity:** Examine the causes and expressions of difference, power, and discrimination.
- **Humanities:** Explore how people process, document, and express their social and cultural experience.
- **Social Science:** Examine society, behavior, and relationships among individuals within a society.
- **Natural Science:** Develop familiarity with various aspects of the physical world and scientific explanations of observed phenomena.

Area of study outcomes:

- Comprehend and chronologically organize important geographical features, ideas, developments, events, people and institutions.
- Distinguish between and analyze primary and secondary sources, and historical facts and interpretations.
- Identify and describe cause and effect relationships for major historical events, and describe and explain changes over time.
- Empathetically understand differing perspectives of peoples of the past, and be able to compare and contrast among different sources, different ideas, and different explanations.
- Write coherently and accurately about the past.
- Discuss how the past continues to shape students and their contemporary world.

Revised June 2019 (Effective Summer 2019)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements. Most four-year universities require one year of a single foreign language as a graduation requirement.

Associate in Applied Science (AAS)**Information Technology Systems**

Qualify for entry-level employment as a computer support specialist, utilizing skills in networking, programming, and applications support by successfully completing program requirements and select areas of emphasis. The AAS - Information Technology Systems program meets the academic requirements to apply for admittance into Lower Columbia's Bachelor of Applied Science degree in Organizational Leadership and Technical Management which prepares industry professionals for positions in leadership, management and supervision.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Information Technology Systems - AAS (Plan 1)** (lowercolumbia.edu/program-maps/info-tech/AAS-Information-Technology-Systems-Plan-1)
- **Information Technology Systems - AAS (Plan 2)** (lowercolumbia.edu/program-maps/info-tech/AAS-Information-Technology-Systems-Plan-2)

Degree Requirements

- **Communications:**
10 credits - ENGL& 101 English Composition I AND ENGL& 235 Technical Writing
- **Quantitative Skills:**
5 credits – MATH& 107 Math in Society OR higher except MATH& 131
- **Human Relations/ Social Science/ Diversity:**
5 credits – BUS 144 Management of Human Relations: DIV OR SOC& 101 Intro to Sociology: DIV
- **Natural Sciences:**
5 credits - CS 170 Fundamentals of Computer Programming
- **Electives:**
2-10 credits from BTEC, BUS, CS, IT or choose from the Distribution List. If applying to the BAS-OLTM degree, students must take 5 credits of natural science with lab. See advisor for recommendations that meet individual needs.

Program Requirements

IT 100	IT Fundamentals	5
IT 102	Introduction to Web Design	5
BTEC 131	Introduction to Spreadsheets	5
BTEC 135	Advanced Data Analysis	5
BUS 150	Customer Service/ Management	5

IT 140	Configuring Windows Operating System	4
IT 141	PC Technician I	4
IT 142	PC Technician II	4
IT 211	Introduction to Networking	5
IT 212	Installing and Configuring Windows Server	5
IT 220	Intro to Cloud Computing	3
IT 230	Database Development	5
IT 235	Introduction to Big Data	5
IT 249	Linux Operating Systems	5
IT 260	Info Tech Security	5
CS 275	Object-Oriented Programming	5
BUS 294	Career Success	2
IT 288	Cooperative Work Experience	1

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 105-113 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.

Students completing this program should acquire the following skills and abilities:

- Demonstrate core IT competency in client computing and user support.
- Demonstrate core IT competency in database and information management.
- Demonstrate core IT competency in networking and convergence.
- Demonstrate core IT competency in programming and application development.
- Apply mathematical information to perform tasks in Information Technology (GS).
- Research and assess new ideas and information in Information Technology (GS).
- Identify the importance of lifelong learning (GS).
- Demonstrate core IT competency in servers, storage and virtualization.
- Function effectively as a member of a diverse team to accomplish common goals (GS).
- Read and interpret technical information.
- Communicate orally with, and write clearly for a wide range of audiences (GS).
- Exhibit professional, legal, and ethical behavior.

- Demonstrate business awareness and workplace effectiveness.

Revised May 2023 (Effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. *Depending on area of emphasis, other courses may be substituted for ones listed in suggested schedule above.*

Associate in Applied Science (AAS)

Machine Trades

Prepare for a job as a machinist, millwright, and tool and die maker, or another occupation related to manufacturing through LCC's Machine Trades program. Graduates may work as advanced apprentice machinists, machine operators, or programmers.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Machine Trades - AAS (lowercolumbia.edu/program-maps/trades/AAS-Machine-Trades)**

Degree Requirements

- **Communications:**
5 credits - ENGL 110 Industrial Communications
- **Quantitative / Symbolic Reasoning Skills:**
5 credits – MATH 106 Industrial Mathematics
- **Human Relations / Social Science:**
5 credits – BUS 144 Management of Human Relations is recommended.
- **Humanities/ Natural Sciences:**
5 credits – DHET 240 Fluid Power/Electrical Theory & Design OR TECH 100 Advanced Principles of Technology OR MFG 130 Materials Science OR choose from the Distribution List.
- **Diversity:**
5 credits – From the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title.

Program Requirements

BLPT 150	Machinists Blueprint Reading	5
HLTH 105	First-Aid, CPR and Bloodborne Pathogens	1
MASP 111	Machine Shop I	10
MASP 112	Machine Shop II	10
MASP 113	Machine Shop III	10
MASP 204	CNC Machining Center Fundamentals	3
MASP 205	CNC Turning Center Fundamentals	3
MASP 221	CNC Milling	10
MASP 222	CNC Turning	10
MASP 223	Advanced CNC Processes	10
MFG 105	Industrial Safety	3
MFG 115	Manufacturing Processes	5
MFG 230	Computer Integrated Manufacturing	4
COLL 289	Employment Portfolio Seminar	1
MASP 288	Cooperative Work Experience	2

3 credits of WELD 105 may be substituted for COLL 289/MASP 288 with program advisor permission.

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 107 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to an industrial technology work environment (GS).

- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS).
- Apply mathematical information to perform tasks in industrial technology (GS).
- Interact effectively with individuals and groups (GS).
- Apply industry standard safety and hazardous material handling guidelines.
- Display work appropriate behavior including positive attitude, timeliness and teamwork.
- Apply knowledge of computer programs to create professional, academic, or business documents following current industry standards.
- Demonstrate competencies required for entry level machinist.
- Interpret industrial blueprints to accurately inspect machined parts.
- Demonstrate competency in documenting and communicating work performed using trade specific language.
- Demonstrate competency in set up and operation of manual machine tools to manufacture parts per specification.
- Program computer numerical control (CNC) mill and CNC lathe to manufacture parts per specification.
- Apply CAD/CAM software to design and manufacture parts per specification.

Revised December 2021 (Effective Summer 2022)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements.

Associate in Applied Science - Transfer (AAS-T)

Machine Trades

for LCC BAS-OLTM

Prepare for a job as a machinist, millwright, and tool and die maker, or another occupation related to manufacturing through LCC's Machine Trades program. Graduates may work as advanced apprentice machinists, machine operators, or programmers. This program also meets the academic requirements to apply for admittance into Lower Columbia's Bachelor of Applied Science degree in Organizational Leadership and Technical Management which prepares industry professionals for positions in leadership, management and supervision.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Machine Trades - AAS-T (BAS-OLTM Option) (lowercolumbia.edu/program-maps/trades/AAS-Machine-Trades-to-BAS-OLTM)**

Degree Requirements

- **Communications:**
5 credits - ENGL& 101 English Composition I
- **Quantitative Skills:**
5 credits – MATH& 107 Math in Society or higher except for MATH& 131
- **Natural Sciences:**
5 credits – Natural Science with lab from the Distribution List
- **Diversity / Human Relations:**
5 credits – BUS 144 Management of Human Relations: DIV

Program Requirements

BLPT 150	Machinists Blueprint Reading	5
CS 110	Introduction to Microcomputer Applications	3
HLTH 105	First-Aid, CPR and Bloodborne Pathogens	1
MASP 111	Machine Shop I	10
MASP 112	Machine Shop II	10
MASP 113	Machine Shop III	10
MASP 204	CNC Machining Center Fundamentals	3
MASP 205	CNC Turning Center Fundamentals	3
MASP 221	CNC Milling	10
MASP 222	CNC Turning	10
MASP 223	Advanced CNC Processes	10
MFG 105	Industrial Safety	3
MFG 115	Manufacturing Processes	5
MFG 230	Computer Integrated Manufacturing	4
COLL 289	Employment Portfolio Seminar	1
MASP 288	Cooperative Work Experience	2

3 credits of WELD 105 may be substituted for COLL 289/MASP 288 with program advisor permission.

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 110 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to an industrial technology work environment (GS).
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS).
- Apply mathematical information to perform tasks in industrial technology (GS).
- Interact effectively with individuals and groups (GS).
- Apply industry standard safety and hazardous material handling guidelines.
- Display work appropriate behavior including positive attitude, timeliness and teamwork.
- Apply knowledge of computer programs to create professional, academic, or business documents following current industry standards.
- Demonstrate competencies required for entry level machinist.
- Interpret industrial blueprints to accurately inspect machined parts.
- Demonstrate competency in documenting and communicating work performed using trade specific language.
- Demonstrate competency in set up and operation of manual machine tools to manufacture parts per specification.
- Program computer numerical control (CNC) mill and CNC lathe to manufacture parts per specification.
- Apply CAD/CAM software to design and manufacture parts per specification.

Revised May 2023 (Effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements.

Certificate of Proficiency (COP)

Machinist

The Machine Trades certificate program is another route to employment as a machinist, millwright, tool and die maker, or other occupation related to manufacturing. Graduates may work as advanced apprentice machinists, machine operators, or programmers.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Machinist - COP (lowercolumbia.edu/program-maps/trades/COP-Machinist)**

Certificate Requirements

- **Communications:**
5 credits - ENGL 110 Industrial Communications is recommended.
- **Quantitative Skills:**
5 credits – MATH 106 Industrial Mathematics.
- **Human Relations / Social Sciences:**
5 credits – BUS 144 Management of Human Relations is recommended.

Program Requirements

BLPT 150	Machinists Blueprint Reading	5
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
MASP 112	Machine Shop II	10
MASP 113	Machine Shop III	10
MFG 105	Industrial Safety	3
MFG 115	Manufacturing Processes	5
WELD 143	SMAW - Stick Welding with E6010	6
MASP 107 AND/OR MASP 111	Machining for Related Occupations <i>AND/OR</i> Machine Shop I (2-10 cr variable) for a combined total of 10 credits	10

iversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this certificate: 65.

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to an industrial technology work environment (GS).
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS).
- Apply mathematical information to perform tasks in industrial technology (GS).
- Interact effectively with individuals and groups (GS).
- Apply industry standard safety and hazardous material handling guidelines.
- Display work appropriate behavior including positive attitude, timeliness and teamwork.
- Apply knowledge of computer programs to create professional, academic, or business documents following current industry standards.
- Demonstrate competencies required for entry level machinist.
- Interpret industrial blueprints for inspection of machined parts.
- Demonstrate competency in set up and operation of manual machine tools to manufacture parts per specification.
- Demonstrate competency in documenting and communicating work performed using trade specific language.

Revised December 2021 (Effective Summer 2022)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Associate in Math Education - DTA/MRP

Math Education

Mathematics is the language of science and a powerful mechanism for describing the world around us. A mathematics degree at Lower Columbia College prepares students for bachelor's programs in areas such as mathematics, statistics, or math education.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Math Education - DTA/MRP (lowercolumbia.edu/program-maps/education/DTAMRP-Math-Education)**

Degree Requirements

- **Communications:**

10 credits - ENGL& 101 English Composition I AND ENGL& 102 Composition II.

- **Quantitative / Symbolic Reasoning Skills:**

5 credits – MATH& 151* Calculus I (must be proficient in MATH 098/099 Pre-College Math III).

- **Humanities:**

15-20 credits – CMST& 220 (was SPCH 110) Public Speaking AND an additional 10 credits from the Distribution List. No more than 5 credits in foreign language at the 100 level, no more than 10 credits from any one discipline. No more than 5 credits of performance/skills courses are allowed.

- **Natural Sciences:**

15-20 credits – MATH& 152* Calculus II AND 10 credits of science from Physics, Chemistry, Geology, or Biology from the Distribution List. Shall include at least one lab course.

- **Social Sciences:**

15-20 credits – PSYC& 100 General Psychology AND an additional 10 credits from the Distribution List. No more than 10 credits allowed from any one discipline.

- **Diversity:**

5 credits – From the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title. Example: SOC& 101 – Introduction to Sociology:DIV.

Other Requirements

EDUC& 205	Intro to Education with Field Exp.:DIV	5
MATH& 153*	Calculus III	5
MATH& 254*	Calculus IV (was MATH 154)	5
MATH 220	Linear Algebra	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total transferable credits required to earn this degree: 90 in courses numbered 100 or above with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

If additional credits are required, the remainder shall be fully transferable as defined by the receiving institution.

* It is recommended that sequence courses be completed at one institution.

Students completing this program should acquire the following skills and abilities:

- Prepared for transfer to a mathematics program at a 4-year college or university.
- Communicate mathematical ideas and concepts using appropriate symbols and terminology.
- Apply mathematical principles to find solutions to real world problems.
- Construct a reasonable argument to defend the overall importance of mathematics.
- Promote evidence-based thinking and decision making.

Revised April 2017 (Effective Fall 2017)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor *and* with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements.

Most four-year universities require one year of a single foreign language as a graduation requirement.

AS-T Other Engineer/MRP

Mechanical/ Civil/ Aeronautical/ Industrial/ Materials Science Engineering

Complete basic background studies for transfer to a bachelor's degree program in engineering disciplines. Careers may be found in research, development, design, operations management, teaching, sales and consulting.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Mechanical, Civil, Aeronautical, Industrial, Materials Science Engineering - AS-T (2 year) (lowercolumbia.edu/program-maps/stem/AST-Mechanical-Civil-Aeronautical-Industrial-Materials-Science-Engineering-2-year)**
- **Mechanical, Civil, Aeronautical, Industrial, and Materials Science Engineering AS-T (3 year) (lowercolumbia.edu/program-maps/stem/AST-Mechanical-Civil-Aeronautical-Industrial-Materials-Science-Engineering-3-year)**

Degree Requirements

- **Communications:**

5 credits - ENGL& 101 English Comp I.

- **Quantitative / Symbolic Reasoning Skills:**

25 credits – MATH& 151* Calculus I, MATH& 152* Calculus II, MATH& 153* Calculus III, MATH 220 Linear Algebra AND MATH 240 Differential Equations.

- **Humanities / Social Sciences:**

15 credits – minimum 5 credits in Humanities, minimum 5 credits in Social Science, plus an additional 5 credits in either Humanities or Social Science from the Distribution List. Economics recommended.

- **Diversity:**

5 credits – from the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title. Example: SOC& 101 – Introduction to Sociology:DIV.

- **Electives:**

5 credits minimum – select electives appropriate for your intended major and intended baccalaureate institution.

Pre-Major Requirements (40 credits)

CHEM& 161*	General Chemistry w/Lab I	5
CHEM& 162*	General Chemistry w/Lab II	5
ENGR& 214	Statics	5
ENGR& 215	Dynamics	5
ENGR& 225	Mechanics of Materials	5
PHYS& 221*	Engr Physics I w/Lab	5
PHYS& 222*	Engr Physics II w/Lab	5
PHYS& 223*	Engr Physics III w/Lab	5

Electives

CS 170	Computer Programming	5
CHEM& 163*	General Chemistry w/Lab III	5
ENGL& 235	Technical Writing	5
ENGR& 106	Engineering Problems	5
ENGR& 121*	Engineering Graphics I	3
ENGR& 122*	Engineering Graphics II	3

ENGR& 123*	Engineering Graphics III	3
ENGR& 204	Electrical Circuits	6
ENGR& 224	Thermodynamics	5
MATH& 254*	Calculus IV	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

*It is recommended that sequence courses be completed at one institution.

Total transferable credits required to earn this degree: 90 with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

Students completing this program should acquire the following skills and abilities:

- Demonstrate the ability to use foundational knowledge in mathematics, physics, chemistry, and biology.
- Design and conduct experiments.
- Make measurements, analyze data, and interpret results.
- Problem solving, team, self-assessment and lifelong learning skills.
- Communicate effectively.

Revised December 2020 (Effective Fall 2021)

Notes:

For this degree, specific grade requirements vary from course to course and among transfer institutions. The student will need to check with transfer advisors. Some baccalaureate institutions require physics with calculus. It is your responsibility to check your baccalaureate institution's specific major requirements the year prior to transferring.

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor *and* with the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements.

Most four-year universities require one year of a single foreign language as a graduation requirement.

Certificate of Proficiency (COP)

Medical Assisting

Students develop knowledge and skills necessary for employment in clinical and administrative-support areas of medical clinics. See Learning Outcomes for details.

The Lower Columbia College Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). This assures the highest standards in a medical assisting curriculum and qualifies the successful graduate to sit for the national Certified Medical Assistant (CMA) exam administered by the American Association of Medical Assistants (AAMA).

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Medical Assisting - COP (lowercolumbia.edu/program-maps/health/COP-Medical-Assisting)**

Certificate Requirements

- **Communications:**
5 credits - **ENGL& 101 English Composition I.
- **Quantitative Skills:**
5 credits – MATH 105 Math for Health Sciences OR Any College Level Math.
- **Human Relations/ Social Science:**
5 credits – PSYC& 100 General Psychology (counts for Human Relations and Social Science) OR BUS 144 Management of Human Relations:DIV (counts for Human Relations, Social Science, and Diversity).
- **Strongly Advised:**
MEDA 205 Certification Review for Medical Assisting, 2 cr.

Program Requirements

**AH 114 OR **PSYC& 200	Healthcare Communication Skills OR Lifespan Psychology	2 OR 5
CS 110 ORBTEC 145	Intro to Microcomputer Applications OR Introduction to MS Word	3 OR 5
BTEC 171	Medical Reception Procedures	3

BTEC 172	Medical Office Procedure	3
BTEC 173	Computers in the Medical Office	3
MEDA 101 OR BTEC 181	Medical Vocabulary I OR Medical Terminology I	3
MEDA 102 OR BTEC 182	Medical Vocabulary II OR Medical Terminology II	3
MEDA 120 OR BIOL& 241 AND BIOL& 242	Survey of Human A & P OR Human A&P 1 AND 2	5 OR 10
MEDA 122 OR BTEC 164 AND MEDA 298	Law & Ethics for the Medical Office OR Medical Office Law & Ethics AND Special Topics in Medical Assisting	3 OR 2 AND 1
MEDA 145	Medical Laboratory Techniques	6
MEDA 161*	Exam Room Procedures I	4
MEDA 162*	Exam Room Procedures II	4
MEDA 165	Medications in Medical Assisting & Diseases	5
MEDA 190	Medical Assisting to Preceptorship	6
MEDA 195	Medical Assisting Seminar	1

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this certificate: 70-80. For any course to count toward this certificate, a grade of C or better is required.

****NOTE:** AH 114 OR PSYC& 200, and ENGL& 101, all with a grade of C or better must be completed before MEDA 161.

*MEDA 161 or MEDA 162 fulfill the Health requirement.

Students completing this program should acquire the following skills and abilities:

- Demonstrate critical thinking by applying objective, valid methods of inquiry and problem-solving to draw rational, ethical and coherent conclusions in medical assisting practice.
- Process and utilize quantitative data in professional medical assisting practice.
- Communicate effectively in professional medical assisting practice.
- Incorporate professional interpersonal skills and caring behaviors in medical assisting practice.
- Demonstrate competencies in the following domains, according to CAAHEP accreditation standards, for employment as a medical assistant in clinical and administrative-support areas of ambulatory health-care settings:
 - cognitive (knowledge)
 - psychomotor (performance)
 - affective (attitude and behavior)
- Be prepared for the national certification exam sponsored by the American Association of Medical Assistants (AAMA).
- Be prepared for state credentialing as a "Medical Assistant-Certified" according to educational requirements in the law relating to Medical Assistants, Engrossed Substitute House Bill 1515.

Revised December 2021 (Effective Summer 2022)

Notes:

*MEDA Program Director permission required to enroll.

To comply with health care agency requirements, students must provide documentation of the following before MEDA 190: Current first aid card, current American Heart Association, current Healthcare Provider CPR, negative urine drug screen (must be within 30 days of beginning MEDA 190), all required immunizations or titers, current TB test or chest Xray, a criminal and fraud background check.

This advice for program planning is based on the information available at the time of preparation. It is always advisable to check with your LCC advisor and with the LCC catalog for LCC graduation requirements.

Associate in Applied Science (AAS)

Medical Assisting

Students develop knowledge and skills necessary for employment in clinical and administrative-support areas of medical clinics. See Learning Outcomes for details.

The Lower Columbia College Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). This assures the highest standards in a medical assisting curriculum and qualifies the successful graduate to sit for the national Certified Medical Assistant (CMA) exam administered by the American Association of Medical Assistants (AAMA).

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Medical Assisting - AAS (lowercolumbia.edu/program-maps/health/AAS-Medical-Assisting)**

Degree Requirements

- **Communications:**
10 credits - **ENGL& 101 English Composition I AND ENGL& 102 Composition II OR CMST& 220 Public Speaking.
- **Quantitative Skills:**
5 credits – MATH 105 Math for Health Sciences OR Any College Level Math.
- **Human Relations / Social Science:**
5 credits – PSYC& 100 General Psychology (counts for Human Relations and Social Science) OR BUS 144 Management of Human Relations:DIV (counts for Human Relations, Social Science, and Diversity).
- **Natural Science/ Humanities:**
5 credits from the Distribution List.
- **Diversity:**
5 credits - From the Diversity Course List. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title. Example: ART& 100 Art Appreciation:DIV.
- **Strongly Advised:**
MEDA 205 Certification Review for Medical Assisting, 2 cr.
- **Electives:**
5-6 credits – choose courses numbered 100 or above from the Distribution List OR HLTH OR PHED (up to 5 cr) OR AH 166.

Program Requirements

**AH 114	Healthcare Communication Skills	2
OR		OR
**PSYC& 200	OR Lifespan Psychology	5
CS 110	Intro to Microcomputer Apps	3
OR	OR	OR

BTEC 145	Introduction to MS Word	5
BTEC 171	Medical Reception Procedures	3
BTEC 172	Medical Office Procedure	3
BTEC 173	Computers in the Medical Office	3
MEDA 101 OR BTEC 181	Medical Vocabulary I OR Medical Terminology I	3
MEDA 102 OR BTEC 182	Medical Vocabulary II OR Medical Terminology II	3
MEDA 120 OR BIOL& 241 AND BIOL& 242	Survey of Human A & P OR Human A & P 1 AND 2	5 OR 10
MEDA 122 OR BTEC 164 AND MEDA 298	Law & Ethics for the Medical Office OR Medical Office Law & Ethics AND Special Topics in Medical Assisting	3 OR 2 AND 1
MEDA 145	Medical Laboratory Techniques	6
MEDA 161*	Exam Room Procedures I	4
MEDA 162*	Exam Room Procedures II	4
MEDA 165	Medications in Medical Assisting & Diseases	5
MEDA 190	Medical Assisting to Preceptorship	6
MEDA 195	Medical Assisting Seminar	1

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total minimum credits required to earn this degree: 90. For any course to count toward this degree, a grade of C or better is required.

****NOTE:** AH 114 OR PSYC& 200, and ENGL& 101, all with a grade of C or better must be completed before MEDA 161.

*MEDA 161 or MEDA 162 fulfill the Health requirement.

Students completing this program should acquire the following skills and abilities:

- Demonstrate critical thinking by applying objective, valid methods of inquiry and problem-solving to draw rational, ethical and coherent conclusions in medical assisting practice.
- Process and utilize quantitative data in professional medical assisting practice.
- Communicate effectively in professional medical assisting practice.
- Incorporate professional interpersonal skills and caring behaviors in medical assisting practice.
- Demonstrate competencies in the following domains, according to CAAHEP accreditation standards, for employment as a medical assistant in clinical and administrative-support areas of ambulatory health-care settings:
 - cognitive (knowledge)
 - psychomotor (performance)
 - affective (attitude and behavior)
- Be prepared for the national certification exam sponsored by the American Association of Medical Assistants (AAMA).
- Be prepared for state credentialing as a "Medical Assistant-Certified" according to educational requirements in the law relating to Medical Assistants, Engrossed Substitute House Bill 1515.

Revised October 2022 (Effective Summer 2023)

Notes:

*MEDA Program Director permission required to enroll.

To comply with health care agency requirements, students must provide documentation of the following before MEDA 190: Current first aid card, current healthcare provider CPR, negative urine drug screen (must be within 30 days of beginning MEDA 190), all required immunizations or titers, current TB test or chest Xray, a criminal and fraud background check.

This advice for program planning is based on the information available at the time of preparation. It is always advisable to check with your LCC advisor and with the LCC catalog for LCC graduation requirements.

Associate in Applied Science - Transfer (AAS-T)**Medical Assisting****for LCC BAS-OLTM**

Students develop knowledge and skills necessary for employment in clinical and administrative-support areas of medical clinics. See Learning Outcomes for details.

The Lower Columbia College Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). This assures the highest standards in a medical assisting curriculum and qualifies the successful graduate to sit for the national Certified Medical Assistant (CMA) exam administered by the American Association of Medical Assistants (AAMA). This program meets the academic requirements to apply for admittance into Lower Columbia's Bachelor of Applied Science degree in Organizational Leadership and Technical Management which prepares professionals for positions in leadership, technical management and supervision.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Medical Assisting - AAS-T (BAS-OLTM option) (lowercolumbia.edu/program-maps/health/AAS-T-Medical-Assisting-BAS-OLTM-option)**

Degree Requirements

- **Communications:**

10 credits - **ENGL& 101 English Composition I AND ENGL& 102 Composition II OR CMST& 220 Public Speaking.

- **Quantitative Skills:**

5 credits – MATH& 107 Math in Society or higher with the exception of MATH& 131.

- **Human Relations / Social Science:**

5 credits – PSYC& 100 General Psychology (counts for Human Relations and Social Science) OR BUS 144 Management of Human Relations:DIV (counts for Human Relations, Social Science, and Diversity).

- **Natural Science:**

5 credits Natural Science with lab course from the Distribution List.

- **Diversity:**

5 credits - From the Diversity Course List. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title. Example: ART& 100 Art Appreciation:DIV.

- **Strongly Advised:**

MEDA 205 Certification Review for Medical Assisting, 2 cr.

- **Electives:**

5-6 credits – choose courses numbered 100 or above from the Distribution List OR HLTH OR PHED (up to 5 cr) OR AH 166.

Program Requirements

**AH 114 OR **PSYC& 200	Healthcare Communication Skills OR Lifespan Psychology	2 OR 5	
CS 110 OR BTEC 145	Intro to Microcomputer Apps OR Introduction to MS Word	3 OR 5	
BTEC 171	Medical Reception Procedures		3
BTEC 172	Medical Office Procedures		3
BTEC 173	Computers in the Medical Office		3
MEDA 101 OR BTEC 181	Medical Vocabulary I OR Medical Terminology I		3
MEDA 102 OR BTEC 182	Medical Vocabulary II OR Medical Terminology II		3
MEDA 120 OR BIOL& 241 AND BIOL& 242	Survey of Human A & P OR Human A & P 1 AND 2	5 OR 10	
MEDA 122 OR BTEC 164 AND MEDA 298	Law & Ethics for the Medical Office OR Medical Office Law & Ethics AND Special Topics in Medical Assisting	3 OR 2 AND 1	
MEDA 145	Medical Laboratory Techniques		6
MEDA 161*	Exam Room Procedures I		4
MEDA 162*	Exam Room Procedures II		4

MEDA 165	Medications in Medical Assisting & Diseases	5
MEDA 190	Medical Assisting to Preceptorship	6
MEDA 195	Medical Assisting Seminar	1

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total minimum credits required to earn this degree: 90. For any course to count toward this degree, a grade of C or better is required.

****NOTE:** AH 114 OR PSYC& 200, and ENGL& 101, all with a grade of C or better must be completed before MEDA 161.

*MEDA 161 or MEDA 162 fulfill the Health requirement.

Students completing this program should acquire the following skills and abilities:

- Demonstrate critical thinking by applying objective, valid methods of inquiry and problem-solving to draw rational, ethical and coherent conclusions in medical assisting practice.
- Process and utilize quantitative data in professional medical assisting practice.
- Communicate effectively in professional medical assisting practice.
- Incorporate professional interpersonal skills and caring behaviors in medical assisting practice.
- Demonstrate competencies in the following domains, according to CAAHEP accreditation standards, for employment as a medical assistant in clinical and administrative-support areas of ambulatory health-care settings:
 - cognitive (knowledge)
 - psychomotor (performance)
 - affective (attitude and behavior)
- Be prepared for the national certification exam sponsored by the American Association of Medical Assistants (AAMA).
- Be prepared for state credentialing as a "Medical Assistant-Certified" according to educational requirements in the law relating to Medical Assistants, Engrossed Substitute House Bill 1515.

February 2023 (Effective Summer 2023)

Notes:

*MEDA Program Director permission required to enroll.

To comply with health care agency requirements, students must provide documentation of the following before MEDA 190: Current first aid card, current healthcare provider CPR,

negative urine drug screen (must be within 30 days of beginning MEDA 190), all required immunizations or titers, current TB test or chest Xray, a criminal and fraud background check.

This advice for program planning is based on the information available at the time of preparation. It is always advisable to check with your LCC advisor and with the LCC catalog for LCC graduation requirements.

Certificate of Proficiency (COP)

Medical Billing & Coding Specialist

Administrative support professionals are responsible for performing and coordinating a wide range of activities, managing information flow, providing excellent customer service, and operating and maintaining a wide variety of office equipment. Organizations in a wide variety of industries, including the health care field and medical offices, rely on skilled administrative support staff to keep operations running efficiently and effectively.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Medical Billing and Coding Specialist - COP** (lowercolumbia.edu/program-maps/business/COP-Medical-Billing-and-Coding-Specialist)

Certificate Requirements

- **Communications:**
5 credits - ENGL& 101 English Composition I OR BUS 119 Business Communications.
- **Quantitative Skills:**
5 credits – BUS 104 Business Math Applications
- **Human Relations / Social Science:**
5 credits – BUS 144 Management of Human Relations:DIV OR BUS 150 Customer Service/Management

Program Requirements

BUS 100	Foundations of Business Success	3
BTEC 104	Intro to Business Technology	5
BTEC 131	Intro to Spreadsheets	5
BTEC 135	Advanced Data Analysis	5
BTEC 161	Intro to ICD-10 Coding, Part I	5

BTEC 162	Intro to ICD-10 Coding, Part II	5
BTEC 163	CPT Coding	5
BTEC 164	Medical Office Law & Ethics	2
BTEC 165	Cultural Awareness for Care Professionals:DIV	5
BTEC 181	Medical Terminology I OR	3
MEDA 101	Medical Vocabulary I	
BTEC 182	Medical Terminology II OR	3
MEDA 102	Medical Vocabulary II	
MEDA 120	Survey of Human A & P	5
BUS 294	Career Success	2

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

To earn a Medical Billing & Coding Specialist Certificate of Proficiency, you must complete a minimum of 68 credits and pass each course listed in program requirements with a C or above

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to a business-or business-related work environment (GS Communication)
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS Critical Thinking)
- Apply mathematical information to perform tasks in business and information technology to work environments (GS Numeracy/Quant. Literacy)
- Interact effectively with individuals and groups (GS Interpersonal Relations)
- Demonstrate proficiency in the use of business equipment, computer software, and technology for medical offices
- Assign ICD codes to diagnoses and procedures
- Assign CPT codes for medical services and procedures
- Create and manage business documents, spreadsheets, and databases
- Demonstrate competency in records management
- Demonstrate proficiency in organizational skills and assigning priority
- Demonstrate ethical decision making

Revised December 2021 (Effective Summer 2022)

Notes:

Consult an advisor if you have any questions.

Associate in Applied Science (AAS)

Medical Office Administration

Medical Administrative professionals are responsible for performing and coordinating a wide range of activities, managing information flow, providing excellent customer service, and operating advanced office technology. Organizations in a wide variety of industries, including the healthcare field, rely on skilled administrative staff to keep operations running efficiently and effectively.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Medical Office Administration - AAS (lowercolumbia.edu/program-maps/business/AAS-Medical-Office-Administration)**

Degree Requirements

- **Communications:**
5 credits - ENGL& 101 English Composition I OR BUS 119 Business Communications.
- **Quantitative Skills:**
5 credits – BUS 104 Business Math Applications OR MATH& 107 Math in Society.
- **Human Relations / Social Science:**
5 credits – recommended: BUS 144 Management of Human Relations:DIV.
- **Diversity:**
5 credits - BTEC 165 Cultural Awareness for Care Professionals.
- **Natural Sciences / Humanities:**
5 credits – recommended: NUTR& 101 Nutrition.
- **Electives:**
3-6 credits - ACCT, BUS, BTEC, CS, IT - BTEC 288 Cooperative Education recommended.

Core Program Requirements

ACCT 101 OR ACCT 135	Intro to Accounting Concepts OR Accounting for Non-Accountants	5
AH 166	Mental Health First Aid for Adults	1

BUS 100	Foundations of Business Success	3
BTEC 104 ORCS 110ANDBTEC 146	Intro to Business TechnologyORIntro to Microcomputer ApplicationsANDPowerpoint Fundamentals	5OR3AND2
BTEC 111	Word Processing I	5
BTEC 112	Word Processing II	5
BTEC 120	Specialized Applications for Business	3
BTEC 131	Introduction to Spreadsheets	5
BTEC 135	Advanced Data Analysis	5
BTEC 148	Introduction to Outlook	2
BTEC 164	Medical Office Law & Ethics	2
BTEC 165	Cultural Awareness for Care Professionals: DIV	5
BTEC 171	Medical Reception Procedures	3
BTEC 172	Medical Office Procedures	3
BTEC 173	Computers in the Medical Office	3
BTEC 181 OR MEDA 101	Medical Terminology I OR Medical Vocabulary I	3
BTEC 182 OR MEDA 102	Medical Terminology II OR Medical Vocabulary II	3
BTEC 230	Electronic Calculators II	2
BUS 294	Career Success	2
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
IT 111	Introduction to Windows	4
<i>In addition to the core program requirements, students must select one area of expertise from the following areas of study:</i>		

Medical Billing & Coding:		
BTEC 160	Medical Scribe	5
BTEC 161	Intro to ICD-10 Coding, Part I (F)	5
BTEC 162	Intro to ICD-10 Coding, Part II (W)	5
BTEC 163	CPT Coding (Sp)	5
MEDA 120	Survey of Human Anatomy & Physiology	5
Community, Health, & Wellness Advocate:		
BTEC 170	Community Health Advocacy	5
BTEC 176	Social Determinants of Health	5
BTEC 177	Trauma Informed Care	5
BTEC 178	Building Sustainable Community Capacity	5
EDUC& 115	Child Development	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 118-121 and pass each course listed in the program requirements with a C or better.

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to a business-or business-related work environment (GS Communication)
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS Critical Thinking)
- Apply mathematical information to perform tasks in business and information technology to work environments (GS Numeracy/Quant. Literacy)
- Interact effectively with individuals and groups (GS Interpersonal Relations)
- Demonstrate proficiency in the use of business equipment, computer software, and technology for medical offices
- Create and manage business documents, spreadsheets, and databases
- Demonstrate competency in records management
- Demonstrate proficiency in organizing skills and assigning priority
- Demonstrate ethical decision-making

Revised February 2023 (Effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Associate in Applied Science - Transfer (AAS-T)

Medical Office Administration for LCC BAS-OLTM

Medical Administrative professionals are responsible for performing and coordinating a wide range of activities, managing information flow, providing excellent customer service, and operating advanced office technology. Organizations in a wide variety of industries, including the health care field, rely on skilled administrative staff to keep operations running efficiently and effectively. This program meets the academic requirements to apply for admittance into Lower Columbia's Bachelor of Applied Science degree in Organizational Leadership and Technical Management which prepares administrative professionals for positions in leadership, technical management and supervision.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Medical Office Administration - AAS-T (BAS-OLTM Option) ([lowercolumbia.edu/program-maps/business/AAS-Medical-Office-Administration-to-BAS-OLTM](https://www.lowercolumbia.edu/program-maps/business/AAS-Medical-Office-Administration-to-BAS-OLTM))**

Degree Requirements

- **Communications:**
5 credits - ENGL& 101 English Composition I
- **Quantitative Skills:**
5 credits – MATH& 107 Math in Society or higher with the exception of MATH& 131
- **Natural Sciences:**
5 credits – Natural Science with lab from the Distribution List
- **Human Relations/ Social Sciences:**
5 credits – BUS 144 Management of Human Relations: DIV
- **Diversity:**
5 credits - BTEC 165 Cultural Awareness for Care Providers

Core Program Requirements

ACCT 101	Intro to Accounting Concepts	5
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AH 166	Mental Health First Aid for Adults	1
BUS 100	Foundations of Business Success	3
BTEC 104	Intro to Business Technology	5
BTEC 111	Word Processing I	5
BTEC 112	Word Processing II	5
BTEC 120	Specialized Applications for Business	3
BTEC 131	Introduction to Spreadsheets	5
BTEC 135	Advanced Data Analysis	5
BTEC 148	Introduction to Outlook	2
BTEC 164	Medical Office Law & Ethics	2
BTEC 171	Medical Reception Procedures (F)	3
BTEC 172	Medical Office Procedures (W)	3
BTEC 173	Computers in the Medical Office (Sp)	3
BTEC 181 OR MEDA 101	Medical Terminology I OR Medical Vocabulary I	3
BTEC 182 OR MEDA 102	Medical Terminology II OR Medical Vocabulary II	3
BTEC 230	Electronic Calculators II	2
BUS 294	Career Success	2
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
IT 111	Introduction to Windows	4

In addition to the core program requirements, students must select one area of expertise from the following areas of study:

Medical Billing & Coding:

BTEC 161	Intro to ICD-10 Coding, Part I (F)	5
BTEC 162	Intro to ICD-10 Coding, Part II (W)	5
BTEC 163	CPT Coding (Sp)	5
MEDA 120	Survey of Human Anatomy & Physiology	5
Community, Health, & Wellness Advocate:		
BTEC 170	Community Health Advocacy	5
BTEC 176	Social Determinants of Health	5
BTEC 177	Trauma Informed Care	5
BTEC 178	Building Sustainable Community Capacity	5
ECED& 115	Child Development	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total minimum credits required to earn this degree: 110-115 and pass each course listed in the program requirements with a C or better.

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to a business-or business-related work environment (GS Communication)
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS Critical Thinking)
- Apply mathematical information to perform tasks in business and information technology to work environments (GS Numeracy/Quant. Literacy)
- Interact effectively with individuals and groups (GS Interpersonal Relations)
- Demonstrate proficiency in the use of business equipment, computer software, and technology for medical offices
- Create and manage business documents, spreadsheets, and databases
- Demonstrate competency in records management
- Demonstrate proficiency in organizing skills and assigning priority
- Demonstrate ethical decision-making

Revised May 2023 (Effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Certificate of Proficiency (COP)

Medical Reception

Administrative support professionals are responsible for performing and coordinating a wide range of activities, managing information flow, providing excellent customer service, and operating and maintaining a wide variety of office equipment. Many organizations across a wide variety of industries, including the health care field and medical offices, rely on skilled administrative support staff to keep operations running efficiently and effectively.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Medical Reception - COP** (lowercolumbia.edu/program-maps/business/COP-Medical-Reception)

Certificate Requirements

- **Communications:**
5 credits - ENGL& 101 English Composition I OR BUS 119 Business Communications.
- **Quantitative Skills:**
5 credits – BUS 104 Business Math Applications
- **Human Relations / Social Science:**
5 credits – BUS 144 Management of Human Relations:DIV recommended.

Program Requirements

BUS 100	Foundations of Business Success	3
BTEC 104	Intro to Business Technology	5
BTEC 111	Word Processing I	5
BTEC 165	Culture Awareness f/Healthcare Professionals:DIV	5
BTEC 171	Medical Reception Procedures	3
BTEC 181	Medical Terminology I OR	3

MEDA 101	Medical Vocabulary I	
BTEC 182	Medical Terminology II OR	3
MEDA 102	Medical Vocabulary II	
BTEC 230	Electronic Calculators II	2
BUS 294	Career Success	2
IT 111 (was CS 111)	Intro to Windows	4
HLTH 105	First Aid/CPR/BB Pathogens	1

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

To earn a Medical Reception Certificate of Proficiency, you must complete a **minimum of 51 credits** and pass each course listed in program requirements with a C or better.

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to a business-or business-related work environment (GS Communication)
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS Critical Thinking)
- Apply mathematical information to perform tasks in business and information technology to work environments (GS Numeracy/Quant. Literacy)
- Interact effectively with individuals and groups (GS Interpersonal Relations)
- Demonstrate proficiency in the use of business equipment, computer software, and technology for medical offices
- Create and manage business documents, spreadsheets, and databases
- Demonstrate competency in records management
- Demonstrate proficiency in organizational skills and assigning priority
- Demonstrate ethical decision-making

Revised December 2021 (Effective Summer 2022)

Notes:

Consult an advisor if you have any questions.

Certificate of Proficiency (COP)

Multicraft Trades

Lower Columbia College (LCC) Multicraft Trades Certificate program is designed to prepare individuals to go to work, enter an apprenticeship training program, or enroll in one of LCC's vocational programs. This program promotes a diverse and skilled workforce and prepares participants to meet basic qualifications for entry employment in a skilled trades profession.

Build Your Pathway: This program is a key asset for local workforce systems' career pathway strategies. Through partnerships with K-12 Career & Technical Programs and industry partners, this program is valuable training approach for students to build pathways to family wage careers. Participants can use this program as an entryway to a local apprenticeship, a skilled trade career, or into a LCC degree program such as Advanced Manufacturing, Diesel/Heavy Equipment Technology, Machine Trades, or Welding.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Multicraft Trades - COP (lowercolumbia.edu/program-maps/trades/COP-Multicraft-Trades)**

General Education

- **Communications:**
5 credits – ENGL& 101 English Composition I OR ENGL 110 Industrial Communication (recommended)
- **Quantitative Skills:**
5 credits – MATH 106 Industrial Mathematics
- **Human Relations / Social Science:**
5 credits – BUS 144 Management of Human Relations: DIV

Program Requirements

Multicraft Trades:

BLPT 150 OR BLPT 160	Machinists Blueprint Reading OR Blueprint Reading for Welders	5
COLL 289	Employment Portfolio Seminar	1
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1

MASP 107 AND/OR MASP 111	Machining for Related Occupations (2-6 variable) AND/OR Machine Shop I (2-10 variable for a combined total of 10 credits)	10
MFG 105	Industrial Safety	3
MFG 115	Manufacturing Processes	5
MFG 288	Cooperative Work Experience	2*
TECH 100	Advanced Principles of Technology	5
WELD 105	Related Welding	6

*MFG 299 Independent Study may be substituted for MFG 288 with faculty program advisor permission.

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this certificate: minimum of 53 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to an industrial technology work environment (GS).
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS).
- Apply mathematical information to perform tasks in industrial technology (GS).
- Interact effectively with individuals and groups (GS).
- Display work appropriate behavior including positive attitude, timeliness and teamwork.
- Apply industry standard safety and hazardous material handling guidelines.
- Apply knowledge of computer programs to create professional, academic, or business documents following current industry standards.
- Describe a variety of manufacturing techniques and components common to manufacturing systems.
- Perform basic machining and welding techniques.
- Interpret blueprints, diagrams and schematics associated with various manufacturing processes.

- Describe basic concepts related to mechanical, hydraulic/pneumatic, instrumentation and electrical systems.
- Describe basic process control strategies.
- Perform entry-level maintenance tasks common in manufacturing operations.
- Demonstrate competency in documenting and communicating work performed using trade specific language.
- Apply knowledge of the properties of industrial influence and the selection of primary materials and conversion into useful products.
- Describe various approaches used to ensure quality in manufacturing operations.

Revised March 2021 (Effective Fall 2021)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Associate in Music - DTA/MRP

Music

Designed to serve students seeking careers in music education or performance, the Associate in Music degree offers students foundational music training in technical and academic areas such as: music theory, ear training, sight singing, individual instruction, ensemble participation, and basic keyboard skills. This degree prepares students for transfer to baccalaureate music programs at participating Washington state colleges and universities, and meets the requirements for the statement Direct Transfer Agreement.

Contact your intended transfer institution regarding specific course choices where options are listed.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Music AA-DTA/MRP (lowercolumbia.edu/program-maps/arts/DTA-MRP-Music)**

Degree Requirements

• Communications:

10 credits - ENGL& 101 English Composition I AND one of the following: ENGL& 102 Composition II OR CMST& 220 Public Speaking OR CMST& 230 Small Group Communication.

• Quantitative/Symbolic Reasoning Skills:

5 credits from the following: MATH& 107 or higher.

• Humanities:

15-20 credits – 10 credits of music theory AND 5 credits from another discipline on the Distribution List. No more than 5 credits in performance/skills courses are allowed.

- **Natural Sciences:**

15-20 credits – Selected from at least two disciplines on the Distribution List, including 5 credits of lab courses. At least 10 credits must be in physical, biological and/or earth sciences. No more than 10 credits from any one discipline and no more than 5 credits from Math and Engineering. Courses used to satisfy this requirement may not be used to satisfy the Quantitative Skills requirement.

- **Social Sciences:**

15-20 credits – Selected from at least two disciplines on the Distribution List. No more than 10 credits from any one discipline.

- **Diversity:**

5 credits – from the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title. Example: SOC& 101 - Introduction to Sociology:DIV.

- **Electives:**

41-44 credits - See advisor for approved list of electives. No more than 15 credits may be taken from the Restricted Course List on the Distribution List.

Recommended Electives

MUSC& 141/2/3	Music Theory I,II,III	5 ea.
MUSC 111/2/3	Ear Training I,II,III	1 ea.
MUSC& 241/2/3	Music Theory IV, V, VI	5 ea.
MUSC 176/7/8, 276/7/8	Individual Instruction I-VI	1 ea.
MUSC 106/7/8	Keyboard Skills I,II,III	1 ea.
Ensembles:		
MUSC 150	Symphonic Band	2
MUSC 130	Jazz Ensemble	2
MUSC 121/2/3, 221/2/3	Concert Choir I-VI	2 ea.

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Minimum transferable credits required to earn this degree: 101-104 in courses numbered 100 or above with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

Students will demonstrate the ability to:

- Accurately identify (visually and aurally) harmonies, pitches and rhythms.
- Prepare and perform music with a focus on interpretation (tone quality, musical style and expression), accuracy (pitch and rhythm), and technical proficiency.

- Express ideas and information in writing and speaking in a manner that is clear and appropriate to the audience, and read and listen effectively. (GS Communication)
- Apply objective, valid methods of inquiry and problem-solving to draw rational, ethical, and coherent conclusions. (GS Critical Thinking)
- Interact effectively with individuals and/or within groups. (GS Interpersonal Relations)
- Achieve competency with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills in practical and abstract contexts. (GS Numeracy)
- Examine the causes and expressions of difference, power, and discrimination. (Diversity)
- Explore how people process, document, and express their social and cultural experience. (Humanities)
- Examine society, behavior, and relationships among individuals within a society. (Social Science)
- Develop familiarity with various aspects of the physical world and scientific explanations of observed phenomena. (Natural Science)

Updated June 2019 (Effective Fall 2019)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements.

Admission to baccalaureate music programs is competitive; therefore, no particular GPA can guarantee admission to any specific program.

Notes on Application to a University or College:

1. Admission application deadlines vary; students must meet the deadline for the university or universities to which they plan to apply for after admission.
2. Four-year institutions may have additional "university-specific" requirements for admission which are not prerequisites specifically identified in the requirements of this degree.
3. Four-year institutions may have "university-specific" requirements for graduation (e.g. institutional residency requirements). Students are advised to consult their destination college or university.

Associate in Arts - Direct Transfer Agreement (AA-DTA)

Music Focus

The music program is designed to serve both those planning to major in music and the general college student. Those who intend to major in this field and seek employment in

education or performance are expected to participate in an ensemble and to take private lessons.

Degree Requirements

- **Communications:**

15 credits - ENGL& 101 English Composition I AND ENGL& 102 Composition II, AND CMST& 220 (was SPCH 110) Public Speaking OR CMST& 230 (was SPCH 114) Small Group Communication.

- **Quantitative/Symbolic Reasoning Skills:**

5 credits from the following: MATH& 107 or higher with the exception of MATH& 131.

- **Humanities:**

15 credits – Selected from at least two disciplines on the Distribution List. No more than 5 credits in foreign language at the 100 level, no more than 10 credits from any one discipline. No more than 5 credits in performance/skills courses are allowed.

- **Natural Sciences:**

15 credits – Selected from at least two disciplines on the Distribution List; must include 5 credits of lab courses. At least 10 credits in physical, biological and/or earth sciences. No more than 5 credits from Computer Science, Mathematics, and Engineering. Courses used to satisfy this requirement may not be used to satisfy the Quantitative Skills requirement.

- **Social Sciences:**

15 credits – Selected from at least two disciplines on the Distribution List. No more than 10 credits from any one discipline.

- **Diversity:**

5 credits – from the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title.

- **Electives:**

25 credits - See advisor for approved list of electives. No more than 15 credits may be taken from the Restricted Course List on the Distribution List.

Recommended Electives

MUSC& 141/2/3	Music Theory I,II,III	5 ea.
MUSC 111/112/113	Ear Training I,II,III	1 ea.
MUSC 176/7/8, 276/7/8	Individual Instruction I-VI	1 ea.
MUSC 115	Group Piano Instruction	2
Ensembles:		
MUSC 121/2/3, 221/2/3	Concert Choir I-VI	2 ea.
MUSC 150	Symphonic Band	2
MUSC 130	Jazz Ensemble	2

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Minimum transferable credits required to earn this degree: 90 in courses numbered 100 or above with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

Students completing this program should acquire the following skills and abilities:

AA DTA Outcomes

Upon the completion of the AA DTA, students will be prepared for transfer to a four-year institution for the student's intended career pathway, and have the following skills and abilities:

Global Skills (assessed at degree level):

- Communication: Express ideas and information in writing and speaking in a manner that is clear and appropriate to the audience, and read and listen effectively.
- Critical thinking: Apply objective, valid methods of inquiry and problem-solving to draw rational, ethical, and coherent conclusions.
- Interpersonal relations: Interact effectively with individuals and/or within groups.
- Numeracy: Achieve competency with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills in practical and abstract contexts.

General education outcomes (assessed at course level):

- Diversity: Examine the causes and expressions of difference, power, and discrimination.
- Humanities: Explore how people process, document, and express their social and cultural experience.
- Social Science: Examine society, behavior, and relationships among individuals within a society.
- Natural Science: Develop familiarity with various aspects of the physical world and scientific explanations of observed phenomena.

Area of study outcomes:

- Accurately identify (visually and aurally) harmonies, pitches and rhythms.
- Prepare and perform music with a focus on interpretation (tone quality, musical style and expression), accuracy (pitch and rhythm), and technical proficiency.

Revised May 2022 (Effective Summer 2022)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements. Most four-year universities require one year of a single foreign language as a graduation requirement.

Associate in Pre-Nursing - DTA/MRP

Nursing - Associate in Pre-Nursing

The Associate in Pre-Nursing DTA/MRP Degree prepares students to transfer to an entry-to practice baccalaureate degree program in Nursing (BSN) and meets pre-requisite course requirements for entry into an Associate in Nursing Degree DTA/MRP program at community colleges in Washington. Students are encouraged to continue their education in a BSN program after completing the Associate in Nursing DTA/MRP degree at LCC. The Pre-Nursing DTA/MRP is applicable to other pre-healthcare programs such as dental hygiene or radiography technician. Please consult with the transfer institution and your academic advisor.

This degree includes pre-requisite coursework for pre-licensure BSN programs at participating baccalaureate institutions, which include University of Washington, Washington State University, Pacific Lutheran University, Seattle Pacific University, Seattle University, and Walla Walla University. Additional institutions may accept this degree. Each institution may have specific requirements. Students must contact the potential transfer institution and work closely with their advisor to ensure specific requirements are met. Students completing this degree who have also met any specific institutional requirements will be regarded as having the minimum preparation for consideration for admission to the institution's Bachelor of Science Nursing program.

Degree Requirements

- **Communications:**

10 credits - ENGL& 101 English Composition I AND ENGL& 102 English Composition II

- **Quantitative Skills:**

5 credits – MATH& 146 Introduction to Statistics

- **Humanities:**

15 credits – CMST& 220 Public Speaking. Remaining 10 credits from Humanities Distribution List.

- **Natural Sciences:**

35 credits – BIOL& 160 General Biology with Lab; BIOL& 241 Human A & P 1; BIOL& 242 Human A & P 2; BIOL& 260 Microbiology; CHEM& 121 Intro to Chemistry; CHEM& 131 Intro to Organic/Biochem; NUTR& 101 Nutrition

- **Social Sciences:**

15 credits – PSYC& 100 General Psychology; PSYC& 200 Lifespan Psychology; SOC& 101 Introduction to Sociology: DIV OR ANTH& 206 Cultural Anthropology: DIV

- **Diversity:**

5 credits: SOC& 101 Introduction to Sociology: DIV OR ANTH& 206 Cultural Anthropology: DIV OR other course(s) totaling 5 credits from Diversity Course List

- **Electives:**

10 credits: up to 5 credits in any college-level course; remainder of the credits must be transferable (not from "restricted list")

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 90

Students completing this program should acquire the following skills and abilities:

AA DTA Outcomes

Upon the completion of the AA DTA, students will be prepared for transfer to a four-year institution for the student's intended career pathway, and have the following skills and abilities:

Global Skills (assessed at degree level):

- Communication: Express ideas and information in writing and speaking in a manner that is clear and appropriate to the audience, and read and listen effectively.
- Critical thinking: Apply objective, valid methods of inquiry and problem-solving to draw rational, ethical, and coherent conclusions.
- Interpersonal relations: Interact effectively with individuals and/or within groups.
- Numeracy: Achieve competency with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills in practical and abstract contexts.

General education outcomes (assessed at course level):

- Diversity: Examine the causes and expressions of difference, power, and discrimination.
- Humanities: Explore how people process, document, and express their social and cultural experience.
- Social Science: Examine society, behavior, and relationships among individuals within a society.
- Natural Science: Develop familiarity with various aspects of the physical world and scientific explanations of observed phenomena.

Area of study outcomes:

- Examine foundational concepts in the natural sciences (anatomy, physiology, microbiology, chemistry, nutrition) and the social sciences (sociology and psychology) as they apply to the field of healthcare.

- Communicate effectively in written and spoken English.
- Describe the role of statistical concepts in research.
- Examine the many influences on and expression of the human condition and human experience.
- Complete preparation for further education in nursing.

Effective Summer 2022

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements. Most four-year universities require one year of a single foreign language as a graduation requirement.

Associate in Nursing - Direct Transfer Agreement (AN-DTA/MRP)

Nursing - LPN2RN Campus Based Opt-in Option

This degree prepares students for licensure and employment as a registered nurse, as well as for continuing nursing education for a baccalaureate degree in nursing. Students who complete this degree and pass the registered nurse license exam (NCLEX-RN) may enter participating Bachelor of Science in Nursing programs in Washington State as seniors. The Nursing Program is approved by the Washington State Nursing Care Quality Assurance Commission and accredited by the Accreditation Commission for Education in Nursing.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Nursing - AN-DTA/MRP (LPN2RN Campus Based Opt-in Option) (lowercolumbia.edu/program-maps/health/ANDTAMRP-Nursing-LPN2RN-Campus-Based-Opt-in-Option)**

Degree Requirements

- **Communications:**
10 credits - ENGL& 101 English Composition I AND ENGL& 102 English Composition II OR CMST& 220 (was SPCH 110) Public Speaking.
- **Quantitative Skills:**
5 credits – MATH& 146 Introduction to Statistics
- **Humanities:**
15 credits – HUM 255: Ethics and Policy in Healthcare (taken after admission to nursing program). 10 credits selected from at least two disciplines on the distribution list for

transfer degrees. No more than 5 credits in foreign language at the 100 level, no more than 10 credits from any one discipline. No more than 5 credits in performance/skills courses are allowed. Five of these credits must also meet the DIV requirement.

• **Natural Sciences:**

30 credits – BIOL& 160, BIOL& 241, BIOL& 242, BIOL& 260, CHEM& 121, NUTR& 101

• **Social Sciences:**

15 credits – PSYC& 100 General Psychology; PSYC& 200 Lifespan Psychology; AND PSYC 255 (taken after admission to Nursing program)

• **Diversity:**

5 credits. Must be met by a course on both the Humanities distribution list and the DIV course list to stay within 135 credits.

• **Electives:**

Fulfilled by 15 credits of the Nursing courses

Program Requirements:

NURS 150	Pharmacology in Nursing I	2
NURS 151	Nurs Concepts/Health & Illness I	3
NURS 152	Nurs Concepts/Health & Illness II	5
NURS 153	Nurs Concepts/Health & Illness III	5
NURS 160	Skills in Nursing I	2
NURS 161	Nursing Practicum I	3
NURS 162	Nursing Practicum II	5
NURS 163	Nursing Practicum III	5
NURS 250	Pharmacology in Nursing II	1
NURS 251	Nurs Concepts/Health & Illness IV	4
NURS 252	Nurs Concepts/Health & Illness V	5
NURS 253	Nurs Concepts/Health & Illness VI	5
NURS 261	Nursing Practicum IV	5
NURS 262	Nursing Practicum V	5
NURS 263	Nursing Practicum VI	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 135

***Note:** Admission to the nursing program is required for all NURS courses and **HUM 255 and PSYC 255**.

Admission is competitive. **Grade of C or higher is required in all courses.** ENGL& 101, MATH 210, PSYC& 100, PSYC& 200, BIOL& 160, BIOL& 241, BIOL& 242, BIOL& 260, and CHEM& 121 must be completed or in process to apply. NUTR& 101 must be completed prior to beginning the nursing coursework. It is highly recommended that the communications courses and the 10 credits of humanities (5 of which must be DIV) be completed prior to beginning the nursing coursework. To be considered for admission to the LPN2RN level of the Nursing program, the student must have graduated from a state board approved PN program and hold a current, unencumbered PN license in WA or OR. **Accepted PN license is equivalent to 30 credits (NURS 150, 151, 160, 161, 152, 162, 153, 163).** Successful completion of NURS 209 - Nursing Success, 2 credits is required before beginning NURS 261.

Students completing this program should acquire the following skills and abilities:

- Demonstrate critical thinking by applying objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions in nursing practice.
- Demonstrate competence in basic nursing knowledge and skills in the performance of the nursing roles as provider of care, manager of care, and member of the profession.
- Communicate effectively in professional nursing practice.
- Process and utilize quantitative data in professional nursing practice.
- Incorporate professional interpersonal skills and caring behaviors in nursing practice.
- Initiate equitable and inclusive nursing practices to promote and maintain health and reduce risk in diverse healthcare settings across the lifespan.

Revised May 2023 (Effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements. Most four-year universities require one year of a single foreign language as a graduation requirement.

To comply with health care agency requirements, students must provide documentation of the following upon admission to the program: Current first aid card, current Healthcare Provider CPR, negative urine drug screen within 30 days prior to beginning nursing coursework, all required immunizations and titers, current TB test or chest X-ray, and completion of a criminal and fraud background check. Certain criminal convictions or

pending charges automatically disqualify an individual from having unsupervised access to vulnerable adults, juveniles, and children, hence may disqualify a student from the program. Please refer to the Nursing Program website Practicum requirements, as well as the DSHS Secretary's List of Disqualifying Crimes.

Associate in Nursing - Direct Transfer Agreement (AN-DTA/MRP)

Nursing - LPN2RN eLearning

This degree prepares students for licensure and employment as a registered nurse, as well as for continuing nursing education for a baccalaureate degree in nursing. Students who complete this degree and pass the registered nurse license exam (NCLEX-RN) may enter participating Bachelor of Science in Nursing programs in Washington State as seniors. The Nursing Program is approved by the Washington State Nursing Care Quality Assurance Commission and accredited by the Accreditation Commission for Education in Nursing.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Nursing - AN-DTA/MRP (LPN2RN eLearning Option) (lowercolumbia.edu/program-maps/health/ANDTAMRP-Nursing-LPN2RN-eLearning)**

Degree Requirements

- **Communications:**
10 credits - ENGL& 101 English Composition I AND ENGL& 102 English Composition II OR CMST& 220 (was SPCH 110) Public Speaking.
- **Quantitative Skills:**
5 credits – MATH& 146 Introduction to Statistics
- **Humanities:**
15 credits – *HUM 255: Ethics and Policy in Healthcare (5 cr) (taken after admission to Nursing Program); 10 credits selected from at least two disciplines on the distribution list for transfer degrees. No more than 5 credits in foreign language at the 100 level, no more than 10 credits from any one discipline. No more than 5 credits in performance/skills courses are allowed. Five of these credits must also meet the DIV requirement.
- **Natural Sciences:**
30 credits – BIOL& 160, BIOL& 241, BIOL& 242, BIOL& 260, CHEM& 121, NUTR& 101
- **Social Sciences:**
15 credits – PSYC& 100 General Psychology; PSYC& 200 Lifespan Psychology; *PSYC 255 Psychosocial Issues in Healthcare (5 cr) (taken after admission to Nursing Program)
- **Diversity:**
5 credits. Must be met by a course on both the Humanities distribution list and the DIV course list.
- **Electives:**
Fulfilled by 15 credits of the Nursing courses

Nursing Courses

NURS 150	Pharmacology in Nursing I	2
NURS 151	Nurs Concepts/Health & Illness I	3
NURS 152	Nurs Concepts/Health & Illness II	5
NURS 153	Nurs Concepts/Health & Illness III	5
NURS 160	Skills in Nursing I	2
NURS 161	Nursing Practicum I	3
NURS 162	Nursing Practicum II	5
NURS 163	Nursing Practicum III	5
NURS 241	Essential Concepts of Nursing Practice	2
NURS 242	Nursing throughout the Lifespan	3
NURS 244	Physiological Health I	4
NURS 245	Physiological Health II	4
NURS 246	Skills Laboratory	2
NURS 247	Clinical Practicum	10
NURS 248	Advanced Clinical Practicum	5
	Total Credits	60

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 135

*Note: Admission to the nursing program is required for all NURS courses, as well as **HUM 255 and PSYC 255**.

Admission is competitive. **Grade of C or higher is required in all courses.** ENGL& 101, MATH 210, PSYC& 100, PSYC& 200, BIOL& 160, BIOL& 241, BIOL& 242, BIOL& 260, and CHEM& 121 must be completed or in process to apply. NUTR& 101 must be completed prior to beginning nursing coursework. It is highly recommended that the communications courses and the 10 credits of humanities (5 of which must be DIV) be completed prior to beginning the nursing coursework. To be considered for admission to the LPN2RN level of the Nursing program, the student must have graduated from a state

board approved PN program and hold a PN license in WA or OR. **Accepted PN license is equivalent to 30 credits (NURS 150, 151, 160, 161, 152, 162, 153, 163).** You must have a current, unencumbered LPN license in WA or OR to enter this program and have documented 1000 hours work experience as an LPN within the last five years.

Students completing this program should acquire the following skills and abilities:

- Demonstrate critical thinking by applying objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions in nursing practice.
- Demonstrate competence in basic nursing knowledge and skills in the performance of the nursing roles as provider of care, manager of care, and member of the profession.
- Communicate effectively in professional nursing practice.
- Process and utilize quantitative data in professional nursing practice.
- Incorporate professional interpersonal skills and caring behaviors in nursing practice.
- Initiate equitable and inclusive nursing practices to promote and maintain health and reduce risk in diverse healthcare settings across the lifespan.

Revised May 2023 (Effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements. Most four-year universities require one year of a single foreign language as a graduation requirement.

To comply with health care agency requirements, students must provide documentation of the following upon admission to the program: Current first aid card, current Healthcare Provider CPR, negative urine drug screen within 30 days prior to beginning nursing coursework, all required immunizations and titers, current TB test or chest X-ray, and completion of a criminal and fraud background check. Certain criminal convictions or pending charges automatically disqualify an individual from having unsupervised access to vulnerable adults, juveniles, and children, hence may disqualify a student from the program. Please refer to the Nursing Program website Practicum requirements, as well as the DSHS Secretary's List of Disqualifying Crimes

Associate in Nursing - Direct Transfer Agreement (AN-DTA/MRP)

Nursing - Registered Nurse

This degree prepares students for licensure and employment as a registered nurse, as well as for continuing nursing education for a baccalaureate degree in nursing. Students who complete this degree and pass the registered nurse license exam (NCLEX-RN) may enter participating Bachelor of Science in Nursing programs in Washington State as

seniors. The Nursing Program is approved by the Washington State Nursing Care Quality Assurance Commission and accredited by the Accreditation Commission for Education in Nursing.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Nursing - AN-DTA/MRP (LPN2RN Campus Based Opt-in Option) (lowercolumbia.edu/program-maps/health/ANDTAMRP-Nursing-LPN2RN-Campus-Based-Opt-in-Option)**
- **Nursing - AN-DTA/MRP (lowercolumbia.edu/program-maps/health/ANDTAMRP-Nursing)**
- **Nursing - AN-DTA/MRP (LPN2RN eLearning Option) (lowercolumbia.edu/program-maps/health/ANDTAMRP-Nursing-LPN2RN-eLearning)**

Degree Requirements

- **Communications:**
10 credits - ENGL& 101 English Composition I AND ENGL& 102 English Composition II OR CMST& 220 (was SPCH 110) Public Speaking.
- **Quantitative Skills:**
5 credits – MATH& 146 Introduction to Statistics
- **Humanities:**
15 credits – *HUM 150, 250, 251: Ethics and Policy in Healthcare I (1 cr), II (2 cr), & III (2 cr) (taken after admission to Nursing Program); 10 credits selected from at least two disciplines on the distribution list for transfer degrees. No more than 5 credits in foreign language at the 100 level, no more than 10 credits from any one discipline. No more than 5 credits in performance/skills courses are allowed. Five of these credits must also meet the DIV requirement.
- **Natural Sciences:**
30 credits – BIOL& 160, BIOL& 241, BIOL& 242, BIOL& 260, CHEM& 121, NUTR& 101
- **Social Sciences:**
15 credits – PSYC& 100 General Psychology; PSYC& 200 Lifespan Psychology; *PSYC 150 & 250: Psychosocial Issues in Healthcare I (2 cr), & II (3 cr) (taken after admission to Nursing Program)
- **Diversity:**
5 credits. Must be met by a course on both the Humanities distribution list and the DIV course list.
- **Electives:**
Fulfilled by 15 credits of the Nursing courses

Nursing Courses

NURS 150	Pharmacology in Nursing I	2
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NURS 151	Nurs Concepts/Health & Illness I	3
NURS 152	Nurs concepts/Health & Illness II	5
NURS 153	Nurs Concepts/Health & Illness III	5
NURS 160	Skills in Nursing I	2
NURS 161	Nursing Practicum I	3
NURS 162	Nursing Practicum II	5
NURS 163	Nursing Practicum III	5
NURS 250	Pharmacology in Nursing II	1
NURS 251	Nurs Concepts/Health & Illness IV	4
NURS 252	Nurs concepts/Health & Illness V	5
NURS 253	Nurs Concepts/Health & Illness VI	5
NURS 261	Nursing Practicum IV	5
NURS 262	Nursing Practicum V	5
NURS 263	Nursing Practicum VI	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 135. Additional credits may be used to satisfy degree requirements, but only 135 credits will transfer to four-year institutions.

*Note: Admission to the nursing program is required for all NURS courses, as well as HUM 150, 250, 251, PSYC 150 and 250.

Admission is competitive. **Grade of C or higher is required in all courses.** ENGL& 101, MATH 210, PSYC& 100, PSYC& 200, BIOL& 160, BIOL& 241, BIOL& 242, BIOL& 260, and CHEM& 121 must be completed or in process to apply. NUTR& 101 must be completed prior to beginning nursing coursework. It is highly recommended that the communications courses and the 10 credits of humanities (5 of which must be DIV) be completed prior to beginning the nursing coursework.

Students completing this program should acquire the following skills and abilities:

- Demonstrate critical thinking by applying objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions in nursing practice.

- Demonstrate competence in basic nursing knowledge and skills in the performance of the nursing roles as provider of care, manager of care, and member of the profession.
- Communicate effectively in professional nursing practice.
- Process and utilize quantitative data in professional nursing practice.
- Incorporate professional interpersonal skills and caring behaviors in nursing practice.
- Initiate equitable and inclusive nursing practices to promote and maintain health and reduce risk in diverse healthcare settings across the lifespan.

Revised May 2023 (Effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements. Most four-year universities require one year of a single foreign language as a graduation requirement.

Nursing Program admission requirements include current Nursing Assistant Certification issued by the Washington or Oregon Department of Health. To comply with health care agency requirements, students must provide documentation of the following upon admission to the program: Current first aid card, current Healthcare Provider CPR, negative urine drug screen within 30 days prior to beginning nursing coursework, all required immunizations and titers, current TB test or chest X-ray, and completion of a criminal and fraud background check. Certain criminal convictions or pending charges automatically disqualify an individual from having unsupervised access to vulnerable adults, juveniles, and children, hence may disqualify a student from the program. Please refer to the Nursing Program website Practicum requirements, as well as the DSHS Secretary's List of Disqualifying Crimes

Certificate of Completion (COC)

Nursing Assistant

The Nursing Assistant Certificate provides the content and experiences for students to achieve mastery of the state-defined competencies required to assist in giving basic nursing care to residents/clients under the supervision of a licensed nurse.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Nursing Assistant - COC (lowercolumbia.edu/program-maps/health/COC-Nursing-Assistant)**

Program Requirements

NURS 090	Nursing Assistant	8
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NOTES:

- Nursing 090 is open to all students.
- Call 360.442.2860 for registration information.
- This course meets Washington Department of Social and Health Service's requirements as an approved Nursing Assistant course. Students who successfully complete this course are eligible to take Washington State written and skills tests to become an NA-C.

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 8

Students completing this program should acquire the following skills and abilities:

- Demonstrate mastery of competencies and standards of practice as listed in WAC 246-841-400 required to assist in giving basic nursing care to residents/clients under the supervision of licensed nurse.

Revised January 2014 (Effective Fall 2014)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements. Most four-year universities require one year of a single foreign language as a graduation requirement.

Bachelor in Applied Science (BAS)

Organizational Leadership and Technical Management

The Bachelor of Applied Science in Organizational Leadership and Technical Management (BAS-OLTM) is a career focused, applied degree to prepare graduates for positions in leadership, management, and supervisory roles in private, public, and nonprofit organizations. The program is designed for working adults with a range of professional technical associate degrees and a diverse set of work experiences and

professional goals. LCC's program will help you gain the skills and knowledge needed to effectively lead and manage others through the study of areas such as behavioral and leadership theory, professional communications, project management, workplace and environmental safety, conflict resolution, theories of decision making, change management, ethics and diversity.

LCC's BAS-OLTM builds on existing associate degrees in a variety of areas, adding upper division coursework to complete a four-year degree. The BAS-OLTM operates as a cohort-based program. Full-time cohorts will complete the program in two years (six quarters) and part-time cohorts will complete in two and a half years (9 quarters). Evening classes are conducted using the hybrid modality with a blend of face to face and online instruction. Admission into the BAS-OLTM program is merit-based. Meeting the minimum entrance requirements does not guarantee admission as the number of qualified applicants may exceed the number of available enrollment spaces.

To be placed into the admission pool, applicants must complete or submit the following:

- BAS application packet
- Proof of an earned associated degree or 90 college level credits from a nationally accredited college or university with a minimum cumulative GPA of 2.5
- Successful completion of (with a 2.0 or better):
 - ENGL& 101 English Composition I
 - A college-level math course for which intermediate algebra is a prerequisite from the quantitative distribution list

The following courses must be completed prior to a bachelor's degree obtainment. Upper division general education requirements are included in the two-year degree. Lower division general education requirements can be completed during the bachelor's program in addition to the required upper division courses. A minimum of 50 quarter credits of general education courses are required in the following distribution areas prior to graduation.

DEGREE REQUIREMENTS

The following courses must be completed prior to a bachelor's degree obtainment. Some courses can be included in the two-year degree or be completed during the bachelor's program in addition to the required courses. Students must complete a total of 50 credits of General Education courses carrying the following distributions prior to graduation.

Communications: 10 credits

- ENGL& 101 English Composition I
- CMST 330 Professional/Organizational Communications

Quantitative Skills: 5 credits

- MATH& 107 Math in Society or college-level math course for which intermediate algebra is a prerequisite

Humanities: 10 credits

- HUM 315 Ethics
- OLTM 440 Ethics and Leadership

Natural Science: 10 credits

- ENVS 440 Environmental Issues
- Elective natural science with lab credits from the Natural Science Distribution List

Social Science: 20 credits

- PSYC 320 Leadership and Organizational Psychology
- OLTM 300 Foundations of Leadership
- OLTM 445 Global Systems & Change Management
- OLTM 330 Entrepreneurship

Diversity: 5 credits

- OLTM 440 Ethics and Leadership

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Advanced Manufacturing for BAS-OLTM - AAS-T (Transfer Option)** (lowercolumbia.edu/program-maps/trades/AAS-T-Advanced-Manufacturing-for-BAS-OLTM)
- **Business Management for BAS-OLTM - AAS-T** (lowercolumbia.edu/program-maps/business/AAS-T-Business-Management-for-BAS-OLTM-)
- **Medical Assisting - AAS-T (BAS-OLTM option)** (lowercolumbia.edu/program-maps/health/AAS-T-Medical-Assisting-BAS-OLTM-option)
- **Organizational Leadership and Technical Management, Full-Time Cohort - BAS** (lowercolumbia.edu/program-maps/business/BAS-OLTM-FT)
- **Organizational Leadership and Technical Management, Part-Time Cohort - BAS** (lowercolumbia.edu/program-maps/business/BAS-OLTM-PT)
- **Substance Use Disorder Studies - AAS-T (BAS-OLTM option)** (lowercolumbia.edu/program-maps/health/AAS-T-Substance-Use-Disorder-Studies-BAS-OLTM-option)
- **Welding for BAS-OLTM - AAS-T (Transfer Option)** (lowercolumbia.edu/program-maps/trades/AAS-T-Welding-for-BAS-OLTM)

See below for a list of AAS degrees that transfer directly to the BAS-OLTM program:

- **Accounting Technician - AAS-T (BAS-OLTM Option)** (lowercolumbia.edu/program-maps/business/AAS-T-Accounting-Technician-to-BAS-OLTM)
- **Administrative Services Manager - AAS-T (BAS-OLTM Option)** (lowercolumbia.edu/program-maps/business/AAS-T-Administrative-Services-Manager-to-BAS-OLTM)
- **Automotive Technology - AAS-T (BAS-OLTM Option)** (lowercolumbia.edu/program-maps/trades/AAS-T-Automotive-Technology-to-BAS-OLTM)
- **Criminal Justice - AAS-T (BAS-OLTM Transfer Option)** (lowercolumbia.edu/program-maps/social-science/AAS-T-Criminal-Justice-to-BAS-OLTM)
- **Diesel/Heavy Equipment Technology - AAS-T (BAS-OLTM Option)** (lowercolumbia.edu/program-maps/trades/AAS-T-Diesel-Heavy-Equipment-to-BAS-OLTM)

- **Information Technology Systems - AAS-T (BAS-OLTM Option) (lowercolumbia.edu/program-maps/info-tech/AAST-Information-Technology-Systems-to-BAS-OLTM)**
- **Machine Trades - AAS-T (BAS-OLTM Option) (lowercolumbia.edu/program-maps/trades/AAST-Machine-Trades-to-BAS-OLTM)**
- **Medical Office Administration - AAS-T (BAS-OLTM Option) (lowercolumbia.edu/program-maps/business/AAST-Medical-Office-Administration-to-BAS-OLTM)**

Program Requirements

OLTM 300	Foundations of Leadership	5
CMST 330	Professional/Organizational Communications	5
ENVS 440	Environmental Issues	5
HUM 315	Ethics	5
OLTM 320	Workplace and Environmental Safety	5
OLTM 325	Transformative Leadership & Decision Making	5
OLTM 329	Foundations of Business Practices & Emerging Technologies	5
OLTM 330	Entrepreneurship	5
OLTM 335	Developing and Leading High-Performance Teams	5
OLTM 440	Ethics and Leadership: Leading and Managing in a Diverse Society	5
OLTM 445	Global Systems & Change Management	5
OLTM 449	Financial Management	5
OLTM 450	Negotiations, Mediation and Conflict Resolution	5
OLTM 455	Advanced Project Management	5
OLTM 460	Coaching and Mentoring	5
OLTM 465	Current Issues in Human Resource Management	5
OLTM 495	Capstone	5

PSYCH 320	Leadership and Organizational Psychology	5
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Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 90 lower-division credits and 90 upper-division credits for a total of 180 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.

Students completing this program should acquire the following skills and abilities:

- Produce oral and written communications in appropriate business formats. (GS - Communication)
- Examine data to design solutions to a problem. (GS - Critical Thinking)
- Collaborate effectively with others within the context of a work environment. (GS - Teamwork)
- Construct a philosophy of leadership to guide action.
- Analyze strategies to effectively lead others to achieve a common goal. (GS - Teamwork)
- Deliberate the moral implications of workplace dilemmas utilizing ethical reasoning.
- Examine the significance of diversity and cultural awareness within the context of management and supervision.
- Analyze strategies and methods to facilitate improvements to organizational capacity and function. (GS - Critical Thinking)
- Implement effective organizational leadership strategies to supervise others.
- Research strategies for effective professional growth and continuous improvement.

Revised October 2022 (Effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Associate in Arts - Direct Transfer Agreement (AA-DTA)

Philosophy Focus

The field of philosophy focuses on methods and systems of reasoning, critical examination of philosophic answers to questions of values and obligations, and justification of ethical beliefs. Begin studies for transfer to a baccalaureate institution to complete an advanced degree. Possible career fields include research, consulting and education.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Philosophy - AA-DTA (lowercolumbia.edu/program-maps/social-science/AADTA-Philosophy)**

Degree Requirements

- **Communications:**

15 credits - ENGL& 101 English Composition I AND ENGL& 102 Composition II, AND CMST& 220 (was SPCH 110) Public Speaking OR CMST& 230 (was SPCH 114) Small Group Communication.

- **Quantitative / Symbolic Reasoning Skills:**

5 credits - MATH& 107 or higher (excluding MATH& 131).

- **Humanities:**

15 credits – Selected from at least two disciplines on the Distribution List. No more than 5 credits in foreign language at the 100 level, no more than 10 credits from any one discipline. No more than 5 credits in performance/skills courses are allowed.

- **Natural Sciences:**

15 credits – Selected from at least two disciplines on the Distribution List; must include 5 credits of lab courses. At least 10 credits in physical, biological and/or earth sciences. No more than 5 credits from Computer Science, Mathematics, and Engineering. Courses used to satisfy this requirement may not be used to satisfy the Quantitative Skills requirement.

- **Social Sciences:**

15 credits – Selected from at least two disciplines on the Distribution List. No more than 10 credits from any one discipline.

- **Diversity:**

5 credits – From the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title. Example: SOC& 101 – Introduction to Sociology:DIV.

- **Electives:**

25 credits - See advisor for approved list of electives. No more than 15 credits may be taken from the Restricted Course List on the Distribution List.

Recommended Electives

PHIL& 101	Intro to Philosophy	5
PHIL 120	Critical Reasoning	5
PHIL 210	Ethics	5
PHIL 260	Philosophy of Religion	5
PSYC& 100	General Psychology	5
SOC& 101	Intro to Sociology	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Minimum transferable credits required to earn this degree: 90 in courses numbered 100 or above with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

Students completing this program should acquire the following skills and abilities:

AA DTA Outcomes

Upon the completion of the AA DTA, students will be prepared for transfer to a four-year institution for the student's intended career pathway, and have the following skills and abilities:

Global Skills (assessed at degree level):

- Communication: Express ideas and information in writing and speaking in a manner that is clear and appropriate to the audience, and read and listen effectively.
- Critical thinking: Apply objective, valid methods of inquiry and problem-solving to draw rational, ethical, and coherent conclusions.
- Interpersonal relations: Interact effectively with individuals and/or within groups.
- Numeracy: Achieve competency with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills in practical and abstract contexts.

General education outcomes (assessed at course level):

- Diversity: Examine the causes and expressions of difference, power, and discrimination.
- Humanities: Explore how people process, document, and express their social and cultural experience.
- Social Science: Examine society, behavior, and relationships among individuals within a society.
- Natural Science: Develop familiarity with various aspects of the physical world and scientific explanations of observed phenomena.

Area of study outcomes:

- Ability to understand and restate accurately in different words positions or arguments with which are initially disagreed upon or which are entirely new.
- The skill to temporarily detach or remain neutral to discern strengths and weaknesses in different positions.
- Awareness of the importance of holding coherent and integrated views.
- Independence of thought through which responsibility is taken for understanding and evaluating ideas in careful, responsible ways.

- Ability to reflect upon own views and consider whether other positions are stronger.

Revised June 2019 (Effective Summer 2019)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements. Most four-year universities require one year of a single foreign language as a graduation requirement.

Associate in Science - Transfer (AS-T)

Physics

A bachelor's degree in physics is an excellent preparation for advanced study in astronomy and astrophysics, atmospheric science, biophysics, chemical physics, computer science and engineering. Students can complete the first two years of studies toward a bachelor's degree and can also specialize in physics education. Professional careers include research positions with government, universities and private industrial laboratories, observatories and science museums.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Physics - AS-T (lowercolumbia.edu/program-maps/stem/AST-Physics)**
- **Physics - AS-T (Math Transfer Option) (lowercolumbia.edu/program-maps/stem/AST-Physics-Math-Transfer-Option)**

Degree Requirements

- **Communications:**
5 credits - ENGL& 101 English Composition I.
- **Quantitative / Symbolic Reasoning Skills:**
10 credits – MATH& 151* Calculus I AND MATH& 152* Calculus II.
- **Humanities / Social Science:**
15 credits – Selected from at least three disciplines on the Distribution List. A minimum of 5 credits in Humanities, and a minimum of 5 credits in Social Science, and an additional 5 credits in either Humanities or Social Science.
- **Diversity:**
5 credits – From the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title. Example: SOC& 101 – Introduction to Sociology:DIV.
- **Pre-Major Requirements:**
35 credits. *It is recommended that sequence courses be completed at one institution.

- **Remaining Credits:**

25 credits - These remaining credits must include program advisor approved credits and should be based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend.

Pre-Major Requirements

CHEM& 161*	General Chemistry w/Lab I	5
MATH& 153*	Calculus III	5
MATH& 254*	Calculus IV (was MATH 154)	5
MATH 220	Linear Algebra	5
PHYS& 221*	Engr Physics I w/Lab	5
PHYS& 222*	Engr Physics II w/Lab	5
PHYS& 223*	Engr Physics III w/Lab	5

Recommended Courses

ASTR& 101	Intro to Astronomy	5
CHEM& 162*	General Chemistry w/Lab II	5
CHEM& 163*	General Chemistry w/Lab III	5
CHEM& 261*	Organic Chemistry w/Lab I	5
CHEM& 262*	Organic Chemistry w/Lab II	5
CS 170	Fundamentals of Computer Prog	5
MATH 240	Differential Equations	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

*It is recommended that sequence courses be completed at one institution.

Minimum transferable credits required to earn this degree: 90 with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

Students completing this program should acquire the following skills and abilities:

- Developed the foundational background in physics and mathematics to further pursue a Bachelor's degree in Physics.

- Ability to abstract and then analyze problems or situations in physics through basic concepts and principled.
- Communicate effectively in a scientific setting.
- Developed an appreciation of the nature of physics both as a science consisting of a few fundamental principles of sweeping power, and as a process where one develops physical principles through observation, hypothesis, and experiment.

Revised March 2013 (Effective Fall 2013)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor *and* for checking specific major requirements of baccalaureate institutions in the year prior to transferring. Consult the LCC catalog for LCC graduation requirements.

Most four-year universities require one year of a single foreign language as a graduation requirement.

Associate in Arts - Direct Transfer Agreement (AA-DTA)

Political Science Focus

The study of political science concentrates on the philosophy, structure and function of government. Career opportunities exist in law, private business, public administration, nonprofit organizations and teaching. Complete studies to transfer to earn a bachelor's degree.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **AA DTA with Political Science focus (lowercolumbia.edu/program-maps/social-science/AADTA-Political-Science)**

Degree Requirements

• Communications:

15 credits - ENGL& 101 English Composition I AND ENGL& 102 Composition II, AND CMST& 220 (was SPCH 110) Public Speaking OR CMST& 230 (was SPCH 114) Small Group Communication.

• Quantitative/Symbolic Reasoning Skills:

5 credits - MATH& 107 or higher (excluding MATH& 131).

• Humanities:

15 credits – Selected from at least two disciplines on the Distribution List. No more than 5 credits in foreign language at the 100 level, no more than 10 credits from any one discipline. No more than 5 credits in performance/skills courses are allowed.

- **Natural Sciences:**

15 credits – Selected from at least two disciplines on the Distribution List; must include 5 credits of lab courses. At least 10 credits in physical, biological and/or earth sciences. No more than 5 credits from Computer Science, Mathematics, and Engineering. Courses used to satisfy this requirement may not be used to satisfy the Quantitative Skills requirement. ANTH& 205, BIOL& 100 and 5 additional credits from physical and/or earth science are recommended. BIOL& 100 meets the laboratory requirement.

- **Social Sciences:**

15 credits – Selected from at least two disciplines on the Distribution List. No more than 10 credits from any one discipline.

- **Diversity:**

5 credits – From the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title. Example: SOC& 101 – Introduction to Sociology:DIV.

- **Electives:**

25 credits - See advisor for approved list of electives. No more than 15 credits may be taken from the Restricted Course List on the Distribution List.

Recommended Electives

POLS& 101	Intro to Political Science	5
POLS 107	Comparative Government	5
POLS& 202	American Government	5
POLS& 203	International Relations	5
POLS 220	The Law and Social Issues	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Minimum transferable credits required to earn this degree: 90 in courses numbered 100 or above with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

Students completing this program should acquire the following skills and abilities:

AA DTA Outcomes

Upon the completion of the AA DTA, students will be prepared for transfer to a four-year institution for the student's intended career pathway, and have the following skills and abilities:

Global Skills (assessed at degree level):

- **Communication:** Express ideas and information in writing and speaking in a manner that is clear and appropriate to the audience, and read and listen effectively.
- **Critical thinking:** Apply objective, valid methods of inquiry and problem-solving to draw rational, ethical, and coherent conclusions.
- **Interpersonal relations:** Interact effectively with individuals and/or within groups.
- **Numeracy:** Achieve competency with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills in practical and abstract contexts.

General education outcomes (assessed at course level):

- **Diversity:** Examine the causes and expressions of difference, power, and discrimination.
- **Humanities:** Explore how people process, document, and express their social and cultural experience.
- **Social Science:** Examine society, behavior, and relationships among individuals within a society.
- **Natural Science:** Develop familiarity with various aspects of the physical world and scientific explanations of observed phenomena.

Area of study outcomes:

- Clearly communicate complex information and concepts in writing and/or verbally.
- Examine political issues and policies from diverse perspectives, evaluating them in terms of both private and public good.
- Apply social science reasoning to a range of political issues and problems.
- Critically question political claims, analyzing their supporting evidence and identifying their underlying values and assumptions.
- Comprehend how politics influences students and their world.

Revised June 2019 (Effective Summer 2019)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements. Most four-year universities require one year of a single foreign language as a graduation requirement.

Associate in Arts & Sciences (AA)

Pre-Dental Hygiene

Careers in medical professions require several years of advanced study. Medical coursework is rigorous and entry into professional schools is very competitive. Students planning a career in medicine, medical technology, dentistry, pharmacy or veterinary can

begin their studies at LCC and gain a solid foundation in the basic sciences required in those fields. A number of medical schools require a foreign language.

NOTE: The program-specific Associate in Arts & Sciences (AA) transfer degree is for students who are sure of the baccalaureate institution they wish to attend. This may be a good option for students who plan to earn a bachelor's degree in a professional field. Students must work closely with their program advisor to design a program that will fulfill the transfer institution's general admission and program entry requirements. Students should expect to have courses evaluated on a course-by-course basis upon transfer to the upper division. *The LCC program advisor and the appropriate department chair must approve the intended program.*

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Pre-Dental Hygiene - AA (lowercolumbia.edu/program-maps/health/AA-Pre-Dental-Hygiene)**

Degree Requirements

- **Communications:**

15 credits – ENGL& 101 English Composition I (5 credits), AND ENGL& 102 English Composition II OR ENGL& 235 Technical Writing (5 credits), AND CMST& 220 (was SPCH 110) Public Speaking OR CMST& 230 (was SPCH 114) Small Group Communication (5 credits).

- **Diversity:**

5 credits – from the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title. Example: SOC& 101 – Intro to Sociology:DIV.

- **Electives:**

37 credits. One (1) year of foreign language recommended. Completion of the courses as prescribed by faculty and accepted by the advisor and Department Chairperson is necessary.

Program Requirements

BIOL& 241	Human A & P 1	5
BIOL& 242	Human A & P 2	5
BIOL& 260	Microbiology	5
CHEM& 121	Intro to Chemistry	5
CHEM& 131	Intro to Organic/ Biochemistry	5
NUTR& 101	Nutrition	5
MATH 210	Elements of Statistics	5

PSYC& 100	General Psychology	5
SOC& 101	Intro to Sociology:DIV	5
PE Elective	Must be fitness/activity course	1

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Minimum credits required to earn this degree: 97. Must have a cumulative grade point average (GPA) of at least 2.0.

Students completing this program should acquire the following skills and abilities:

- Biology students will become familiar with the (empirical) scientific method of problem solving.
- Majors-level biology students will perform competitively with their peers at four-year institutions or professional programs.
- Majors-level biology students will demonstrate proficiency with life process mechanisms such as biological chemistry; cellular metabolism; heredity, anatomy and physiology of major animal organ systems; plant structure, as well as transport and reproductive function; diversity and classification of Organisms; evolution; and ecology.
- Biology students will express ideas and information in writing in a format that is clear and appropriate to a science-literate audience.
- Biology students will apply various techniques and processes using information, data, and situations, to draw logical, rational, ethical and coherent conclusions.
- Major-level biology students will achieve competency with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills and abstract contexts.

Revised March 2018 (Effective Winter 2018)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements. Most four-year universities require one year of a single foreign language as a graduation requirement.

Associate in Arts - Direct Transfer Agreement (AA-DTA)

Pre-Law Focus

Law careers can be built upon interests in accounting, corporate management, public administration, politics, criminal investigation, as well as legal practice. Most law schools do not require specific undergraduate programs, but recommend courses appropriate for the baccalaureate degree of the student's choice. Pre-law students should have the ability to read, write, and speak English well, a critical understanding of human values and institutions, and the creative power to think.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Pre-Law - AA-DTA (lowercolumbia.edu/program-maps/social-science/AADTA-Pre-Law)**

Degree Requirements

- **Communications:**
15 credits - ENGL& 101 English Composition I AND ENGL& 102 Composition II, AND CMST& 220 (was SPCH 110) Intro to Public Speaking OR CMST& 230 (was SPCH 114) Small Group Communication.
- **Quantitative / Symbolic Reasoning Skills:**
5 credits - MATH& 107 or higher (excluding MATH& 131).
- **Humanities:**
15 credits – Selected from at least two disciplines on the Distribution List. No more than 5 credits in foreign language at the 100 level, no more than 10 credits from any one discipline. No more than 5 credits in performance/skills courses are allowed.
- **Natural Sciences:**
15 credits – Selected from at least two disciplines on the Distribution List; must include 5 credits of lab courses. At least 10 credits in physical, biological and/or earth sciences. No more than 5 credits from Computer Science, Mathematics, and Engineering. Courses used to satisfy this requirement may not be used to satisfy the Quantitative Skills requirement.
- **Social Sciences:**
15 credits – Selected from at least two disciplines on the Distribution List. No more than 10 credits from any one discipline. PSYC and SOC are recommended courses.
- **Diversity:**
5 credits – from the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title. Example: SOC& 101 – Intro to Sociology:DIV.
- **Electives:**
25 credits - See advisor for approved list of electives. No more than 15 credits may be taken from the Restricted Course List on the Distribution List.

Recommended Electives

BUS& 201	Business Law	5
CJ 154	The American Legal System	5
POLS& 101	Intro Political Science	5
POLS 220	The Law and Social Issues	5
SOC& 101	Introduction to Sociology:DIV	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Minimum transferable credits required to earn this degree: 90 in courses numbered 100 or above with a cumulative grade point average of at least 2.0. A course cannot be credited toward more than one distribution area.

Students completing this program should acquire the following skills and abilities:

AA DTA Outcomes

Upon the completion of the AA DTA, students will be prepared for transfer to a four-year institution for the student's intended career pathway, and have the following skills and abilities:

Global Skills (assessed at degree level):

- Communication: Express ideas and information in writing and speaking in a manner that is clear and appropriate to the audience, and read and listen effectively.
- Critical thinking: Apply objective, valid methods of inquiry and problem-solving to draw rational, ethical, and coherent conclusions.
- Interpersonal relations: Interact effectively with individuals and/or within groups.
- Numeracy: Achieve competency with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills in practical and abstract contexts.

General education outcomes (assessed at course level):

- Diversity: Examine the causes and expressions of difference, power, and discrimination.
- Humanities: Explore how people process, document, and express their social and cultural experience.
- Social Science: Examine society, behavior, and relationships among individuals within a society.

- Natural Science: Develop familiarity with various aspects of the physical world and scientific explanations of observed phenomena.

Area of study outcomes:

- A basic understanding of the institutions that develop law.
- Ability to read for a clear understanding of content and relationships.
- Reason logically and think critically.
- Solve problems given specific factual situations.
- Write and speak with clarity, precision, and style.

Revised June 2023 (Effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements. Most four-year universities require one year of a single foreign language as a graduation requirement.

Certificate of Proficiency (COP)

Production Technician

The Production Technician Certificate of Proficiency is designed to prepare production operators for industries using high technology equipment and processes. Producers of coated steel, biofuels, energy, petrochemicals, pulp and paper, pharmaceuticals, food, and dimensional lumber are some of the industries that use automation to control production processes.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Production Technician - COP** (lowercolumbia.edu/program-maps/trades/COP-Production-Technician)

Certificate Requirements

- **Communications:**
5 credits – ENGL& 101 English Composition I OR ENGL 110 Industrial Communications (ENGL 110 recommended)
- **Quantitative Skills:**
5 credits – MATH 106 Industrial Mathematics
- **Human Relations/ Social Science:**
5 credits – BUS 144 Management of Human Relations

Program Requirements

CS 110	Intro to Microcomputer Apps	3
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
MFG 105	Industrial Safety	3
MFG 120	Quality Assurance	4
MFG 140	Industrial Hydraulics	4
PMFG 110	Industrial and Predictive Maintenance Fundamentals	5
PMFG 150	Electrical/Electronic Fundamentals	6
PMFG 151	Process Control Equipment	5
PMFG 154	Instrumentation Fundamentals & PLCs	5
PMFG 201	Electrical Control Equipment	3
PMFG 202	Electric Motors	2
PMFG 210	Advanced Industrial Maintenance	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this certificate: 61.

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to an industrial technology work environment (GS).
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS).
- Apply mathematical information to perform tasks in industrial technology (GS).
- Interact effectively with individuals and groups (GS).
- Display work appropriate behavior including positive attitude, timeliness and teamwork.
- Apply industry standard safety and hazardous material handling guidelines.
- Apply knowledge of computer programs to create professional, academic, or business documents following current industry standards.

- Identify the various components commonly used in process manufacturing operations.
- Describe basic concepts related to mechanical, hydraulic/pneumatic, instrumentation and electrical systems.
- Describe basic process control strategies.
- Perform basic maintenance tasks on common process manufacturing devices.
- Demonstrate competency in documenting and communicating work performed using trade specific language.

Revised March 2021 (Effective Summer 2021)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Associate in Arts - Direct Transfer Agreement (AA-DTA)

Psychology Focus

Work as a guidance counselor, clinical psychologist, social worker or educator after earning your bachelor's degree. Psychology courses also supplement majors in health sciences, social sciences, business and law.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Psychology - AA-DTA ([lowercolumbia.edu/program-maps/social-science/AADT A-Psychology](http://lowercolumbia.edu/program-maps/social-science/AADT-A-Psychology))**

Degree Requirements

- **Communications:**
15 credits - ENGL& 101 English Composition I AND ENGL& 102 Composition II, AND CMST& 220 (was SPCH 110) Public Speaking OR CMST& 230 (was SPCH 114) Small Group Communication.
- **Quantitative / Symbolic Reasoning Skills:**
5 credits - MATH& 107 or higher (excluding MATH& 131).
- **Humanities:**
15 credits – Selected from at least two disciplines on the Distribution List. No more than 5 credits in foreign language at the 100 level, no more than 10 credits from any one discipline. No more than 5 credits in performance/skills courses are allowed.
- **Natural Sciences:**
15 credits – Selected from at least two disciplines on the Distribution List; must include 5 credits of lab courses. At least 10 credits in physical, biological and/or earth sciences. No more than 5 credits from Computer Science, Mathematics, and Engineering. Courses used to satisfy this requirement may not be used to satisfy the Quantitative Skills

requirement. ANTH& 205, BIOL& 100 and 5 additional credits from physical and/or earth science are recommended. BIOL& 100 meets the laboratory requirement.

- **Social Sciences:**

15 credits – Selected from at least two disciplines on the Distribution List. No more than 10 credits from any one discipline.

- **Diversity:**

5 credits – From the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title. Example: SOC& 101 – Introduction to Sociology:DIV.

- **Electives:**

25 credits - See advisor for approved list of electives. No more than 15 credits may be taken from the Restricted Course List on the Distribution List.

Recommended Electives

ANTH& 206	Cultural Anthropology	5
PSYC& 100	General Psychology	5
PSYC& 200	Lifespan Psychology	5
PSYC& 220	Abnormal Psychology	5
SOC& 101	Intro to Sociology	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Minimum transferable credits required to earn this degree: 90 in courses numbered 100 or above with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution area.

Students completing this program should acquire the following skills and abilities:

AA DTA Outcomes

Upon the completion of the AA DTA, students will be prepared for transfer to a four-year institution for the student's intended career pathway, and have the following skills and abilities:

Global Skills (assessed at degree level):

- **Communication:** Express ideas and information in writing and speaking in a manner that is clear and appropriate to the audience, and read and listen effectively.
- **Critical thinking:** Apply objective, valid methods of inquiry and problem-solving to draw rational, ethical, and coherent conclusions.

- Interpersonal relations: Interact effectively with individuals and/or within groups.
- Numeracy: Achieve competency with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills in practical and abstract contexts.

General education outcomes (assessed at course level):

- Diversity: Examine the causes and expressions of difference, power, and discrimination.
- Humanities: Explore how people process, document, and express their social and cultural experience.
- Social Science: Examine society, behavior, and relationships among individuals within a society.
- Natural Science: Develop familiarity with various aspects of the physical world and scientific explanations of observed phenomena.

Area of study outcomes:

- Develop an understanding of scientific methods of research as they apply to the study of human behavior and mental processes.
- Comprehend how the individual's immediate environment, past experience, physiological makeup, development and socio-cultural context influence thinking, emotions and behavior.
- Comprehend and articulate the major psychological theories and contemporary trends in psychological research.
- Develop some degree of self-awareness with strategies for fostering greater psychological health.
- Acquire the knowledge necessary to enjoy meaningful personal and professional relationships; as students, parents, domestic partners, co-workers and community members.
- Develop an understanding of statistics as related to correlational and causal research.
- Demonstrate effective communication skills by reading primary and secondary source material, discussing course content, and writing coherent essays.

Revised June 2023 (Effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements. Most four-year universities require one year of a single foreign language as a graduation requirement.

Certificate of Completion (COC)**Retail Management**

The Retail Management Certificate of Completion prepares current and future retail employees for success in the fast-paced retail industry. Students develop an understanding of the scope and requirements of a management position in a retail business. To stay competitive, grocery stores, department stores, specialty retailers, and “eTailers” need skilled people. LCC’s Retail Management certificate program was developed with, and is endorsed by, the Western Association of Food Chains (WAFC). Certificate graduates may continue their studies by applying certificate course work towards the AAS degree in Business Management.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Retail Management – COC (lowercolumbia.edu/program-maps/business/COC-Retail-Management)**

Certificate Requirements

- **Communications:**
5 credits - BUS 119 Business Communications
- **Human Relations / Social Science:**
5 credits – BUS 144 Management of Human Relations.

Program Requirements

ACCT 101	Intro to Accounting Concepts	5
BUS 159	Principles of Retailing	5
BUS 244	Human Resource Management	5
BUS 245	Principles of Management	5
BUS 264	Principles of Marketing	5
CS 110	Intro to Microcomputer Apps	3

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this certificate: 38

Students completing this program should acquire the following skills and abilities:

- Articulate the relationship between human behavior, customer service, and retail business outcomes.
- Perform basic bookkeeping and accounting tasks using spreadsheets and industry standard accounting software.
- Compose written business documents, including email and reports, using industry standard software.
- Describe the core management functions of planning, organizing, leading, and controlling.
- Describe marketing principles utilized by retail organizations.
- Communicate professionally in writing and speaking as appropriate to a business work environment (GS Communication).
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS Critical Thinking).
- Apply mathematical information to make decisions and solve problems in business (GS Numeracy/Quantitative Literacy).
- Interact effectively with individuals and groups (GS Interpersonal Relations).

Revised October 2019 (Effective Winter 2020)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Associate in Arts - Direct Transfer Agreement (AA-DTA)

Sociology Focus

Study the origin, development, organization and functioning of human society as you prepare for a career in social work, public opinion research, public relations, guidance counseling, education, personnel relations or community planning. Complete a two-year degree or studies to transfer to earn a bachelor's degree.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Sociology - AA-DTA (lowercolumbia.edu/program-maps/social-science/AADTA-Sociology)**

Degree Requirements

- **Communications:**

15 credits - ENGL& 101 English Composition I AND ENGL& 102 Composition II, AND CMST& 220 (was SPCH 110) Public Speaking OR CMST& 230 (was SPCH 114) Small Group Communication.

- **Quantitative / Symbolic Reasoning Skills:**

5 credits - MATH& 107 or higher (excluding MATH& 131).

- **Humanities:**

15 credits – Selected from at least two disciplines on the Distribution List. No more than 5 credits in foreign language at the 100 level, no more than 10 credits from any one discipline. No more than 5 credits in performance/skills courses are allowed.

- **Natural Sciences:**

15 credits – Selected from at least two disciplines on the Distribution List; must include 5 credits of lab courses. At least 10 credits in physical, biological and/or earth sciences. No more than 5 credits from Computer Science, Mathematics, and Engineering. Courses used to satisfy this requirement may not be used to satisfy the Quantitative Skills requirement. ANTH& 205, BIOL& 100 and 5 additional credits from physical and/or earth science are recommended. BIOL& 100 meets the laboratory requirement.

- **Social Sciences:**

15 credits – Selected from at least two disciplines on the Distribution List. No more than 10 credits from any one discipline.

- **Diversity:**

5 credits – From the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title. Example: SOC& 101 – Introduction to Sociology:DIV.

- **Electives:**

25 credits - See advisor for approved list of electives. No more than 15 credits may be taken from the Restricted Course List on the Distribution List.

Recommended Electives

PSYC& 100	General Psychology	5
SOC 210	Human Sexuality:DIV	5
SOC 225	Race and Ethnicity:DIV	5
CMST& 210 (was SPCH 104)	Interpersonal Communication	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Minimum transferable credits required to earn this degree: 90 in courses numbered 100 or above with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

Students completing this program should acquire the following skills and abilities:

AA DTA Outcomes

Upon the completion of the AA DTA, students will be prepared for transfer to a four-year institution for the student's intended career pathway, and have the following skills and abilities:

Global Skills (assessed at degree level):

- Communication: Express ideas and information in writing and speaking in a manner that is clear and appropriate to the audience, and read and listen effectively.
- Critical thinking: Apply objective, valid methods of inquiry and problem-solving to draw rational, ethical, and coherent conclusions.
- Interpersonal relations: Interact effectively with individuals and/or within groups.
- Numeracy: Achieve competency with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills in practical and abstract contexts.

General education outcomes (assessed at course level):

- Diversity: Examine the causes and expressions of difference, power, and discrimination.
- Humanities: Explore how people process, document, and express their social and cultural experience.
- Social Science: Examine society, behavior, and relationships among individuals within a society.
- Natural Science: Develop familiarity with various aspects of the physical world and scientific explanations of observed phenomena.

Area of study outcomes:

- Develop an understanding of scientific methods of research as they apply to the study of human societies.
- Develop an understanding of the interpretive approaches to the study of human social interaction.
- Develop an understanding of the role that social structure, social institutions and social identity play in shaping human thought and action.
- Develop a basic understanding of crucial social institutions such as the family that has a paramount role in the structuring of social life and human development.
- Develop a basic understanding of the issues of race, ethnicity, class, gender and religion.

- Develop a basic understanding of the crucial issues of social, economic, and political inequality and the role that a history of social exclusion has played in perpetuating these inequalities.
- Gain an understanding of the role that dynamic social interaction of a society's history plays in the emergence of human diversity.
- Recognize the role that society has played in creating and perpetuating human misery (social problems).

Revised March 2021 (Effective Fall 2021)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements. Most four-year universities require one year of a single foreign language as a graduation requirement.

Associate in Applied Science - Transfer (AAS-T)

Substance Use Disorder Studies for LCC BAS-OLTM

The Substance Use Disorder program provides courses to meet the educational requirements of the State WAC 246-811-030 for licensure of Substance Use Disorder Professional (SUDP). The curriculum includes the understanding of the following topics specific to alcohol and drug addiction treatment of individuals: Pharmacological actions of alcohol and other drugs; treatment methods; record keeping and case management; cultural diversity; health issues; community resources; individual and group counseling; relapse prevention; working with specific groups, such as youth and families; and professional and ethical responsibilities. This program meets the academic requirements to apply for admittance into Lower Columbia's Bachelor of Applied Science degree in Organizational Leadership and Technical Management which prepares professionals for positions in leadership, technical management and supervision.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Substance Use Disorder Studies - AAS-T (BAS-OLTM option) (lowercolumbia.edu/program-maps/health/AAS-T-Substance-Use-Disorder-Studies-BAS-OLTM-option)**

Degree Requirements

- **Communications:**
5 credits - ENGL& 101 English Composition I.

• **Quantitative Skills:**

5 credits – MATH& 107 Math in Society or higher with the exception of MATH& 131

• 5 credits - Natural Science with lab course from the Distribution List

• **Human Relations / Social Science:**

5 credits – PSYC& 100 General Psychology.

• **Diversity:**

5 credits – choose SOC& 101 Intro to Sociology:DIV OR CMST 250 (was SPCH 109) Intercultural Communications:DIV.

• **Electives:**

8 credits minimum.

Program Requirements

SUDS 101*	Intro to Substance Use Disorders	5
SUDS 102*	Intro to Theories and Counseling	3
SUDS 107	Adolescent Substance Use Disorder Assess/Treat	3
SUDS 110*	Alcohol/Drug Pathophysiology and Pharmacology	3
SUDS 111*	Record Keeping and Case Management	3
SUDS 113	Substance Abuse and Addiction Treatment Methods	3
SUDS 121*	SUD Professional and Ethical Responsibilities	3
SUDS 201	SUD and the Family System	3
SUDS 202	SUD Counseling with Diverse Populations	3
SUDS 203	Relapse Prevention and Intervention	3
SUDS 215*	Group Counseling: Theories/Applications	3
SUDS 220	Co-Occurring Disorders	3
SUDS 288	Cooperative Work Experience	10

COLL 289*	Employment Portfolio Seminar	1
HLTH 100	Occupational Safety and Health	3
PSYC& 200	Lifespan Psychology	5

Electives

(choose 2 or 3 of the following for a minimum of 8 credits)

SUDS 105	Substance Use Disorders/ Domestic Violence	3
SUDS 109	Process of Addiction/ Compulsive Behaviors	4
SUDS 114	Suicide Assessment/ Prevention/Crisis Mgmt	2
PSYC& 220	Abnormal Psychology (PSYC& 220 not offered every quarter. Check with advisor.)	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 90-92 with a "C" or higher in the program requirements.

*These SUDS courses must be completed along with Math, English, Psychology, and Natural Science requirements to be eligible for your field work credits.

Students completing this program should acquire the following skills and abilities:

- Demonstrate critical thinking by applying objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions to client situations in chemical dependency.
- Demonstrate competency in chemical dependency principles, topics, knowledge and skills.
- Communicate effectively with faculty, peers, clients, client family systems, health care professionals, community agencies and the judicial system.
- Incorporate interpersonal skills and caring behaviors in interactions with faculty, peers, clients, client family systems, health care professionals, community agencies, the judicial system and employers.

Revised February 2023 (effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Associate in Applied Science (AAS)

Substance Use Disorder Studies

The Substance Use Disorder program provides courses to meet the educational requirements of the State WAC 246-811-030 for licensure of Substance Use Disorder Professional (SUDP). The curriculum includes the understanding of the following topics specific to alcohol and drug addiction treatment of individuals: Pharmacological actions of alcohol and other drugs; treatment methods; record keeping and case management; cultural diversity; health issues; community resources; individual and group counseling; relapse prevention; working with specific groups, such as youth and families; and professional and ethical responsibilities.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Substance Use Disorder Studies - AAS (lowercolumbia.edu/program-maps/health/AAS-Substance-Use-Disorder-Studies)**

Degree Requirements

- **Communications:**
5 credits - ENGL& 101 English Composition I.
- **Quantitative Skills:**
5 credits – MATH 105 Math for Health Sciences OR higher (MATH 105 is not accepted for AA-DTA)
- **Human Relations / Social Science:**
5 credits – PSYC& 100 General Psychology.
- **Natural Sciences:**
5 or 6 credits – Choose from the following: BIOL& 100 Survey of Biology (5 cr.), OR BIOL& 170 Human Biology (5 cr.), OR BIOL& 241 Human A & P I (5 cr.), OR BIOL& 242 Human A & P II (5 cr.), OR CHEM& 100 Preparatory Chemistry (5 cr.), OR NUTR& 101 Nutrition (5 cr.)
- **Diversity:**
5 credits – choose SOC& 101 Intro to Sociology:DIV OR CMST 250 (was SPCH 109) Intercultural Communications:DIV.

- **Electives:**

8 credits minimum.

Program Requirements

SUDS 101	Intro to Substance Use Disorders	5
SUDS 102	Intro to Theories and Counseling	3
SUDS 107	Adolescent Substance Use Disorder Assess/Treat	3
SUDS 110	Alcohol/Drug Pathophysiology and Pharmacology	3
SUDS 111	Record Keeping and Case Management	3
SUDS 113	Substance Abuse and Addiction Treatment Methods	3
SUDS 121	SUD Professional and Ethical Responsibilities	3
SUDS 201	SUD and the Family System	3
SUDS 202	SUD Counseling with Diverse Populations	3
SUDS 203	Relapse Prevention and Intervention	3
SUDS 215	Group Counseling: Theories/Applications	3
SUDS 220	Co-Occurring Disorders	3
SUDS 288	Cooperative Work Experience	10
COLL 289	Employment Portfolio Seminar	1
HLTH 100	Occupational Safety and Health	3
PSYC& 200	Lifespan Psychology	5

Electives

(choose 2 or 3 of the following for a minimum of 8 credits)

SUDS 105	Substance Use Disorders/ Domestic Violence	3
SUDS 109	Process of Addiction/ Compulsive Behaviors	4
SUDS 114	Suicide Assessment/ Prevention/Crisis Mgmt	2
PSYC& 220	Abnormal Psychology (PSYC& 220 not offered every quarter. Check with advisor.)	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 90-92 with a "C" or higher in the program requirements.

Students completing this program should acquire the following skills and abilities:

- Demonstrate critical thinking by applying objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions to client situations in chemical dependency.
- Demonstrate competency in chemical dependency principles, topics, knowledge and skills.
- Communicate effectively with faculty, peers, clients, client family systems, health care professionals, community agencies and the judicial system.
- Incorporate interpersonal skills and caring behaviors in interactions with faculty, peers, clients, client family systems, health care professionals, community agencies, the judicial system and employers.

Revised February 2023 (effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Associate in Arts - Direct Transfer Agreement (AA-DTA)

Substance Use Disorder Studies Focus

Prepare for baccalaureate coursework in psychology, human development, or other related discipline. This option is designed for students who intend to complete the Associate in Applied Science degree in Substance Use Disorder Studies at LCC and plan to continue their education for a baccalaureate degree in a related field.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Substance Use Disorder Studies - AA/DTA (lowercolumbia.edu/program-maps/health/AADTA-Substance-Use-Disorder-Studies)**

Degree Requirements

- **Communications:**

15 credits - ENGL& 101 English Composition I AND ENGL& 102 English Composition II AND CMST& 220 (was SPCH 110) Public Speaking OR CMST& 230 (was SPCH 114) Small Group Communication.

- **Quantitative Skills:**

5 credits - MATH& 107 or higher with the exception of MATH& 131.

- **Humanities:**

15 credits – selected from at least two disciplines on the Distribution List. No more than 5 credits in foreign language at the 100 level, no more than 10 credits from any one discipline. No more than 5 credits in performance/skills courses are allowed.

- **Natural Sciences:**

15 credits – Selected from at least two disciplines on the Distribution List; must include 5 credits of lab courses. At least 10 credits in physical, biological and/or earth sciences. No more than 5 credits from Computer Science, Mathematics, and Engineering. Courses used to satisfy this requirement may not be used to satisfy the Quantitative Skills requirement. Recommended from the following: BIOL& 100, BIOL& 160, BIOL& 241, BIOL& 242, CHEM& 110, CHEM& 121, NUTR& 101.

- **Social Sciences / Diversity:**

15 credits – SOC& 101:DIV, PSYC& 100, SUDS 101.

- **Electives:**

25 credits – PSYC& 200, 15 credits of SUDS courses (not including SUDS 101), and 5 credits from the non-restricted course list.

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 90 in courses numbered 100 or above with a cumulative grade point average (GPA) of at least 2.0. A course cannot be credited toward more than one distribution or skill area.

Students completing this program should acquire the following skills and abilities:

AA DTA Outcomes

Upon the completion of the AA DTA, students will be prepared for transfer to a four-year institution for the student's intended career pathway, and have the following skills and abilities:

Global Skills (assessed at degree level):

- **Communication:** Express ideas and information in writing and speaking in a manner that is clear and appropriate to the audience, and read and listen effectively.
- **Critical thinking:** Apply objective, valid methods of inquiry and problem-solving to draw rational, ethical, and coherent conclusions.
- **Interpersonal relations:** Interact effectively with individuals and/or within groups.
- **Numeracy:** Achieve competency with numbers and graphical skills to interpret and communicate quantifiable information, and apply mathematical and statistical skills in practical and abstract contexts.

General education outcomes (assessed at course level):

- **Diversity:** Examine the causes and expressions of difference, power, and discrimination.
- **Humanities:** Explore how people process, document, and express their social and cultural experience.
- **Social Science:** Examine society, behavior, and relationships among individuals within a society.
- **Natural Science:** Develop familiarity with various aspects of the physical world and scientific explanations of observed phenomena.

Area of study outcomes:

- Solve problems using quantitative/symbolic reasoning skills.
- Communicate effectively in written and spoken English.
- Develop a basic understanding of the many influences on human behavior and expression of the human experience.
- Demonstrate foundational skills required for entry-level counseling experience in chemical dependency.
- Develop a basic understanding of scientific reasoning as it applies to the study of human behavior
- Articulate the major concepts involved in chemical dependency and its treatment.

Revised February 2023 (effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Bachelor in Applied Sciences (BAS)

Teacher Education

You can be on the path to making a difference in your community by earning a Bachelor of Applied Science (BAS) degree in Teacher Education. LCC's program will help you gain the skills and knowledge needed to effectively work with students and collaborate with professionals throughout the field. This program is tailored for working adults who desire to work with young children and prepares you for a career teaching in K-8th grade classrooms or in early childhood education settings.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding **program map (lowercolumbia.edu/program-maps/education/)**.

Admission into the BAS-TE program is merit based. Meeting the minimum entrance requirements does not guarantee admission as the number of qualified applicants may exceed the number of available enrollment spaces. To be placed into the admissions pool, applicants must complete and submit the following:

- BAS application packet
- Proof of an earned associate degree or 90 college level credits from a nationally accredited college or university with a minimum cumulative GPA of 2.5
- Successful completion of (with a 2.0 or better):
 - ENGL& 101 - English Composition I
 - A college-level math course for which intermediate algebra is a prerequisite from the quantitative distribution list (MATH& 132 is recommended)
 - EDUC& 115 - Child Development
 - EDUC& 150 - Child/Family/Community
 - EDUC& 205 - Intro to Education w/Field Experience
 - HIST& 136 - US History I or HIST& 137 - US History II

The program offers two tracks: teacher certification (track one) and early childhood education (track two). The teacher certification track offers endorsements in early childhood education and elementary education. The early childhood education track provides specialized coursework for working with children and families in early care and education settings.

ADDITIONAL ADMISSIONS REQUIREMENTS

- Scores from the WEST B, ACT or SAT (track one only). Learn more about the **WEST-B (www.pesb.wa.gov/preparation-programs/assessments/basic-skills-assessment-west-b/)**. Students who score below benchmark will be required to complete a remediation plan once admitted to the program.

- Completion of consent to share data with OSPI and PESB

ADDITIONAL PROGRAM REQUIREMENTS (Completed prior to starting the program)

- Office of the Superintendent for Public Instruction (OSPI) or Department of Children, Youth, and Families (DCYF) Background Check
- Pre-residency clearance (track one only)

DEGREE REQUIREMENTS

The following courses must be completed prior to a bachelor's degree obtainment. Some courses can be included in the two-year degree or be completed during the bachelor's program in addition to the required courses. A minimum of 50 quarter credits of general education courses are required in the following distribution areas prior to graduation.

- **Communications:** 10 credits
 - ENGL& 101 English Composition I
 - 5 additional credits from the LCC communications distribution list (CMST& 220 or ENGL& 102 recommended)
- **Quantitative Skills:** 5 credits
 - MATH& 107 or a college-level math course for which intermediate algebra is a prerequisite (MATH& 132 recommended)
- **Humanities:** 5 credits
 - 5 credits from the LCC Humanities distribution list
- **Natural Sciences:** 5 credits
 - 5 credits with lab, from the LCC Natural Science distribution list
- **Social Science:** 15 credits
 - EDUC& 115 Child Development (also meets Human Relations requirement)
 - HIST& 137 US History II or HIST& 136 US History I
 - EDUC 319 Anti-Bias Education
- **Diversity:** 10 credits
 - EDUC& 205 Introduction to Education
 - EDUC 319 Anti-Bias Education
- **Electives:** 10 credits
 - An additional 10 credits from the distributions above

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Teacher Education - BAS (Full-Time Cohort, Certificated Route) (lowercolumbia.edu/program-maps/education/BAS-Teacher-Education-FT-certificated)**
- **Teacher Education - BAS (Full-Time Cohort, Early Childhood Education) (lowercolumbia.edu/program-maps/education/BAS-Teacher-Education-FT-ECE)**
- **Teacher Education - BAS (Part-Time Cohort, Certificated Route) (lowercolumbia.edu/program-maps/education/BAS-Teacher-Education-PT-certificated)**
- **Teacher Education - BAS (Part-Time Cohort, Early Childhood Education) (lowercolumbia.edu/program-maps/education/BAS-Teacher-Education-PT-ECE)**

Program Requirements:

EDUC 300	Foundations of Teacher Education	5
EDUC 319	Anti-Bias Education	5
EDUC 320	Language Arts for Teachers	5
EDUC 325	Intro to Special Education	5
EDUC 330	Math Methods	5
EDUC 335	Professionalism, Collaboration & Classroom Leadership	5
EDUC 340	Concepts of Motor Skills	1
EDUC 345	Curriculum Development & Design	5
EDUC 350	Creative Arts Across the Curriculum	1
EDUC 410	Inquiry Based Science for Teachers	4
EDUC 414	Guidance Techniques	5
EDUC 420	Social Studies for Teachers	4
EDUC 429	Assessment	5
EDUC 430	Advanced Language & Literacy Methods	4

In addition to core program requirements, students must select one of the following tracks prior to their senior year:

Track 1: Teacher Certification

EDUC 301	Practicum I	4
EDUC 302	Practicum II	4
EDUC 401	Reflective Practice I	1
EDUC 402	Reflective Practice II	1
EDUC 403	Reflective Practice III	1
EDUC 411	Student Teaching I	5
EDUC 412	Student Teaching II	5

EDUC 413	Student Teaching III	5
EDUC 439	Portfolio and Professional Assessment	5

Additional Exit Requirements for Track #1 Certification

- Passing score of either the Early Childhood or Elementary Education endorsement assessment (or both for dual endorsement) National Evaluation Series (NES) Test 101 - early childhood education, or tests 102 and 103 Elementary Education subtests 1 & 2. These are content knowledge assessments required prior to being certified to teach in a particular subject area. Learn more about the **WEST-E/NES** (www.pesb.wa.gov/preparation-programs/assessments/content-knowledge-assessment-west-e-and-nes/) .
- Complete the pedagogy (teacher performance) assessment. **Learn more about testing and assessments** (www.pesb.wa.gov/preparation-programs/assessment-s/) .
- Successful completion of required clinical hours.
- Meet all requirements of OSPI for residency teacher certification.

Track 2: Early Childhood Education

ECED 301	Practicum I	4
ECED 302	Practicum II	4
ECED 401	Reflective Practice I/ Coaching & Mentoring	1
ECED 402	Reflective Practice II/ Leadership	1
ECED 403	Reflective Practice III/ Advocacy	1
ECED 411	Student Teaching I	5
ECED 412	Student Teaching II	5
ECED 413	Student Teaching III	5
ECED 439 OR EDUC 439	Issues and Trends OR Portfolio and Professional Assessment (required for certification)	5

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 180 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.

Students completing this program should acquire the following skills and abilities:

- Compare a variety of assessment, diagnosis, and evaluation practices in collaboration with colleagues and families to guide the learning and holistic development of each student (GS - Teamwork).
- Justify the importance of relationships with students, families, colleagues, and community agencies and is able to create and maintain those relationships to support children's learning and development.
- Evaluate cultural beliefs and biases; articulate and apply an understanding of how people differ in their perspectives and approaches; and create learning opportunities that are culturally responsive for students and their families.
- Predict student behavior and possible external stressors to effectively choose and implement strategies that support each student's success in the learning community (GS - Critical Thinking).
- Discriminate data from a variety of sources to inform decisions about instruction, services, programs, interventions, and practices (GS - Critical Thinking).
- Prepare plans based on theory, regularly analyze, evaluate, and synthesize results of their teaching practice and make appropriate changes that more fully serve each student and their family (GS - Critical Thinking).
- Formulate and apply the central concepts of the arts, Language Arts, health and fitness, mathematics, science, technology and social studies, and identify resources to support student's growth across the disciplines.
- Construct and implement lesson plans that support individual student growth across the developmental continuum utilizing child development theory, including knowledge of typical and atypical developments.
- Value ongoing professional development to ensure research-based best practices, alignment with state and national standards and changing district-wide curriculum protocols.
- Appraise, implement, and monitor Individual Family Service Plans (IFSPs), Individual Educational Programs (IEPs), and 504 Plans in collaboration with families, as well as multi-disciplinary and multi-agency teams, to provide the services and supports necessary for the optimal growth of students with diverse abilities (GS - Teamwork).

Revised March 2023 (Effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Associate in Applied Science - Transfer (AAS-T)

Welding

for LCC BAS-OLTM

The Welding AAS-T degree prepares students for the state commercial welding examination or welding jobs in manufacturing, maintenance, or fabrication. Students must successfully complete the Washington Association of Building Officials (WABO) Qualification Test before earning a degree in Welding. This program also meets the academic requirements to apply for admittance into Lower Columbia's Bachelor of Applied Science degree in Organizational Leadership and Technical Management (BAS-OLTM) which prepares industry professionals for positions in leadership, management and supervision.

Degree Requirements

- **Communications:**
5 credits – ENGL& 101 English Composition I
- **Quantitative Skills:**
5 credits – MATH& 107 Math in Society or higher (excluding MATH& 131)
- **Natural Sciences:**
5 credits – Natural Science with lab from the Distribution List
- **Diversity / Human Relations:**
5 credits – BUS 144 Management of Human Relations: DIV

Program Requirements

BLPT 160	Blueprint Reading for Welders	5
COLL 289	Employment Portfolio Seminar	1
CS 110	Introduction to Microcomputer Applications	3
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
MFG 105	Industrial Safety	3
MASP 107	Machining for Related Occupations	6
WELD 141	SMAW - Stick Welding with E7018	10
WELD 142	Advanced SMAW - WABO	10
WELD 143	SMAW - Stick Welding with E6010	10

WELD 158	Welding Theory and Fabrication	5
WELD 241	FCAW-G - Dual Shield Wire Feed Welding with E71T-1	10
WELD 242	Advanced FCAW-G - WABO	6
WELD 243	GMAW - Solid Wire Feed Welding with ER70S-6 and ER5356	6
WELD 255	GTAW - Tig Welding with ER70S-6 and ER5356	6-10
WELD 288	Cooperative Work Experience	2
WELD 70/75	Welding Certification (WABO)	0

WELD 288 may be substituted for 2 credits of WELD 299 Independent Study or any Elective with program advisor permission.

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: minimum 104-108 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to an industrial technology work environment. (GS Communication)
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions. (GS Critical Thinking)
- Apply mathematical information to perform tasks in industrial technology. (GS Numeracy/Quantitative Literacy)
- Interact effectively with individuals and groups. (GS Interpersonal Relations)
- Display work appropriate behavior including positive attitude, timeliness, and teamwork.
- Apply industry standard safety and hazardous material handling guidelines.
- Apply knowledge of computer programs to create professional, academic, or business documents following current industry standards.
- Safely operate equipment and tools used in welding, cutting, and fabricating.
- Demonstrate competency in advanced level welding and cutting processes.
- Perform welding activities following written and verbal instructions.

- Demonstrate competency interpreting prints, drawings, and symbols for welding and fabricating.
- Communicate work performed using trade specific language.
- Complete tasks accurately, safely, and within a given timeframe.

Revised May 2023 (Effective Summer 2023)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Associate in Applied Science (AAS)

Welding

Prepare for the state commercial welding examination or qualify for welding jobs in manufacturing, maintenance, or construction through LCC's welding program. Students must successfully complete the Washington Association of Building Officials (WABO) Qualification Test before earning a degree in Welding.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Welding - AAS (lowercolumbia.edu/program-maps/trades/AAS-Welding)**

Degree Requirements

- **Communications:**
5 credits – ENGL 110 Industrial Communications recommended.
- **Quantitative Skills:**
5 credits – MATH 106 Industrial Mathematics recommended.
- **Human Relations / Social Science / Diversity:**
5 credits – BUS 144 Management of Human Relations:DIV meets all three requirements and is recommended.
- **Humanities / Natural Sciences:**
5 credits – DHET 240 Fluid Power/Electrical Theory & Design OR TECH 100 Advanced Principles of Technology OR MFG 130 Materials Science OR choose from the Distribution List.

Program Requirements

BLPT 160	Blueprint Reading for Welders	5
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COLL 289	Employment Portfolio Seminar	1
CS 110	Intro to Microcomputer Applications	3
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
MFG 105	Industrial Safety	3
MASP 107	Machining for Related Occupations	6
WELD 141	SMAW - Stick Welding with E7018	10
WELD 142	Advanced SMAW - WABO	10
WELD 143	SMAW - Stick Welding with E6010	10
WELD 158	Welding Theory and Fabrication	5
WELD 241	FCAW-G - Dual Shield Wire Feed Welding with E71T-1	10
WELD 242	Advanced FCAW-G - WABO	6
WELD 243	GMAW - Solid Wire Feed Welding with ER70S-6 and ER5356	6
WELD 255	GTAW - Tig Welding with ER70S-6 and ER5356	6-10
WELD 288	Cooperative Work Experience	2
WELD 70/75	Welding Certification (WABO)	0

WELD 288 may be substituted for 2 credits of WELD 299 Independent Study or any Elective with program advisor permission.

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 104-108 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to an industrial technology work environment. (GS Communication)
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions. (GS Critical Thinking)
- Apply mathematical information to perform tasks in industrial technology. (GS Numeracy/Quantitative Literacy)
- Interact effectively with individuals and groups. (GS Interpersonal Relations)
- Display work appropriate behavior including positive attitude, timeliness, and teamwork.
- Apply industry standard safety and hazardous material handling guidelines.
- Apply knowledge of computer programs to create professional, academic, or business documents following current industry standards.
- Safely operate equipment and tools used in welding, cutting, and fabricating.
- Demonstrate competency in advanced level welding and cutting processes.
- Perform welding activities following written and verbal instructions.
- Demonstrate competency interpreting prints, drawings, and symbols for welding and fabricating.
- Communicate work performed using trade specific language.
- Complete tasks accurately, safely, and within a given timeframe.

Revised December 2021 (Effective Summer 2022)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Certificate of Proficiency (COP)

Welding

The welding certificate program helps prepare the student for employment in manufacturing or maintenance.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- **Welding - COP (lowercolumbia.edu/program-maps/trades/COP-Welding)**

Certificate Requirements

- **Communications:**
5 credits – ENGL 110 Industrial Communications recommended.
- **Quantitative Skills:**
5 credits – MATH 106 Industrial Mathematics recommended.
- **Human Relations / Social Sciences / Diversity:**
5 credits – BUS 144 Management of Human Relations: DIV meets all three requirements and is recommended.

Program Requirements

BLPT 160	Blueprint Reading for Welders	5
CS 110	Intro to Microcomputer Applications	3
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
MFG 105	Industrial Safety	3
WELD 141	SMAW - Stick Welding with E7018	10
WELD 158	Welding Theory and Fabrication	5
WELD 241	FCAW-G - Dual Shield Wire Feed Welding w/ E71T-1	10
WELD 243	GMAW - Solid Wire Feed Welding with ER70S-6 and ER5356	6

Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists) are available in the Lower Columbia College Catalog located at lowercolumbia.edu/catalog.

Total credits required to earn this certificate: 58.

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to an industrial technology work environment. (GS Communication)
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions. (GS Critical Thinking)

- Apply mathematical information to perform tasks in industrial technology. (GS Numeracy/Quant. Literacy)
- Interact effectively with individuals and groups. (GS Interpersonal Relations)
- Display work appropriate behavior including positive attitude, timeliness, and teamwork.
- Apply industry standard safety and hazardous material handling guidelines.
- Apply knowledge of computer programs to create professional, academic, or business documents following current industry standards.
- Safely operate equipment and tools used in welding, cutting, and fabricating.
- Demonstrate competency in entry level welding and cutting processes.
- Perform welding activities following written and verbal instructions.
- Demonstrate competency in interpreting prints, drawings, and symbols for welding and fabricating.
- Communicate work performed using trade specific language.
- Complete tasks accurately, safely, and within a given timeframe.

Revised December 2021 (Effective Summer 2022)

Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

Course Descriptions

Distribution List Symbols

Symbol	Definition
HUM	Course meets distribution credit in Humanities.
SOCS	Course meets distribution credit in Social Science.
NSCI	Course meets distribution credit in Natural Sciences.
NSL	Course meets distribution credits in Natural Sciences as a lab course.
PERF	*Course meets distribution credits as a performance based course.
PAC	Course meets distribution credits as physical education activity course.
REEL	Course meets distribution credits as a restricted elective.
DIV	Course meets diversity requirement.
&	Course is part of the Washington Community Colleges' Common

Symbol	Definition
	Course Numbering system.
F	Course usually offered Fall Quarter.
W	Course usually offered Winter Quarter.
Sp	Course usually offered Spring Quarter.
S	Course usually offered Summer Quarter.

Accounting (ACCT).....	277
Allied Health (AH).....	279
American Sign Language (ASL).....	280
Anthropology (ANTH).....	281
Art (ART).....	282
Astronomy (ASTR).....	287
Automotive Technology (AMTC).....	288
Biology (BIOL).....	290
Blueprint (BLPT).....	293
Business (BUS).....	294
Business Technology (BTEC).....	297
Chemistry (CHEM).....	304
Chinese (CHIN).....	307
College Success (COLL).....	307
College and Career Preparation (CCP).....	309
Communication Studies (CMST).....	317
Computer Science (CS).....	319
Criminal Justice (CJ).....	321
Dance (DANCE).....	323
Diesel and Heavy Equipment Technology (DHET).....	326
Drafting (DRFT).....	329
Drama (DRMA).....	330
Early Childhood Education (ECED)....	333
Earth Science (ERSI).....	338
Economics (ECON).....	339
Education (EDUC).....	340

Engineering (ENGR).....	348
English (ENGL).....	350
English Language Learning (ELL).....	356
Environmental Science (ENVS).....	360
Geography (GEOG).....	361
Geology (GEOL).....	361
Health (HLTH).....	363
History (HIST).....	364
Human Development (HDEV).....	366
Humanities (HUM).....	373
Information Technology (IT).....	377
Intensive English as a Second Language (IESL).....	380
Library (LIBR).....	386
Machine Trades (MASP).....	387
Manufacturing (MFG).....	389
Math (MATH).....	391
Medical Assisting (MEDA).....	395
Music (MUSC).....	398
Nursing (NURS).....	405
Nutrition (NUTR).....	410
Oceanography (OCEA).....	411
Organizational Leadership and Technical Management (OLTM).....	411
Philosophy (PHIL).....	415
Physical Education (PHED).....	416
Physical Science (PHSC).....	423
Physics (PHYS).....	424
Political Science (POLS).....	426
Process Control Manufacturing (PMFG).....	427
Psychology (PSYC).....	429
Sociology (SOC).....	431
Spanish (SPAN).....	432
Substance Use Disorders (SUDS).....	435
Technology Education (TECH).....	438
Welding (WELD).....	438
WorkFirst (WFC).....	441
Youth Reengagement (YR).....	441

Accounting (ACCT)

ACCT& 201 F,W 5 credits **Principles of Accounting I ELEC**

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

Prerequisites: BUS 104, MATH 088 with a grade of C or higher or instructor permission. No previous accounting courses are required.

ACCT& 202 W,Sp 5 credits **Principles of Accounting II ELEC**

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

Prerequisite: ACCT& 201 (was ACCT 231) with a grade of C or better and BUS 104 with a grade of C or better or MATH& 125 or higher Co-requisite: MATH& 125 or higher

ACCT 275 **Sp** **5 credits**
Accounting Tech Capstone **REEL**

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

Prerequisites: A grade of C or better in ACCT 150, ACCT& 202, and ACCT 241 or instructor permission.

ACCT 288 **1-15 credits**
Cooperative Work Experience

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

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

ACCT 299 **1-10 credits**
Independent Study

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

Prerequisites: By instructor permission only.

Allied Health (AH)

AH 114 **W,Sp** **2 credits**
Healthcare Communication Skills
REEL

Provides introductory content on the communication process in health care settings. Introduces principles of communication, therapeutic communication skills, barriers to effective communication, and principles of verbal and written reporting in health care. Explores communication with clients who have complex needs, conflict resolution, team work, health care informatics, and cultural competency in health care. Techniques for acquiring employment will be discussed, and internet websites will be evaluated for credibility.

Prerequisite: ENGL 099 with a grade of C or higher (or ENGL& 101 placement), or instructor permission.

AH 166 **1 credit**
Mental Health First Aid for Adults **REEL**

Prepares participants to assist an individual who may be developing a mental health problem or experiencing a mental health crisis. Includes risk factors and warning signs of mental health problems. Provides information on depression, anxiety, trauma, psychosis, and addiction. Presents a 5-step action plan for assisting an individual with a mental health problem or crisis. Discusses identification and utilization of resources. Content is based on the National Council for Behavioral Mental Health First Aid USA training program. Upon successful completion of the course, certification in Mental Health First Aid is awarded.

Prerequisites: None

AH 167 **1 credit**
Mental Health First Aid for Youth REEL
 Prepares participants to assist an individual who may be developing a mental health problem or experiencing a mental health crisis. Includes risk factors and warning signs of mental health problems. Provides information on depression, anxiety, trauma, psychosis, and addiction. Presents a 5-step action plan for assisting an individual with a mental health problem or crisis. Discusses identification and utilization of resources. Content is based on the National Council for Behavioral Mental Health First Aid USA training program. Upon successful completion of the course, certification in Mental Health First Aid is awarded.
 Prerequisites: None

AH 288 **1-5 credits**
Cooperative Work Experience
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.
 Prerequisites: Instructor or Cooperative Education Coordinator permission
 Concurrent requirements: COLL 289 or BUS 294 must be taken prior to or concurrent with this course.

AH 299 **1-10 credits**
Independent Study
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.
 Prerequisites: By instructor permission only.

American Sign Language (ASL)

ASL& 121 **F** **5 credits**
American Sign Language I HUM
 Introduces the basics of American Sign Language (ASL). Designed for students who have little or no previous knowledge of ASL. Readiness for learning will be approached via visual-gestural communication techniques, visual discrimination, and visual memory exercises. ASL questions, commands, and other simple sentence structures are introduced to develop rudimentary conversational skills in ASL. Information about the Deaf Community and Deaf Culture will be introduced.
 Prerequisites: None

ASL& 122 **W** **5 credits**
American Sign Language II HUM
 Continues development of American Sign Language (ASL) skills, with primary focus on refining the use of basic ASL sentence types. Pronominalization, classifiers, spatial referencing, pluralization, and temporal and distributional aspects are introduced. Students learn routine communicative functions of the language: asking, requesting, providing clarification, and giving and asking for directions. Information about the Deaf Community and Deaf Culture is included.
 Prerequisites: ASL& 121 with a grade of C or better.

ANTH& 205 F,Sp 5 credits
Biological Anthropology NSCI

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

Prerequisite: None

ANTH& 206 W 5 credits
Cultural Anthropology: DIV DIV, SOCS

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

Prerequisite: None

ANTH 288 1-17 credits
Cooperative Work Experience

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

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

ANTH 299 1-10 credits
Independent Study

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

Prerequisites: By instructor permission only.

Art (ART)

ART& 100 S,F,W,Sp 5 credits
Art Appreciation: DIV HUM, DIV

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

Prerequisite: none

ART 101 S,F,W,Sp 3 credits
Beginning Drawing HUM, PERF

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

Prerequisite: None

ART 102 S,F,W,Sp 3 credits
Intermediate Drawing HUM, PERF

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

Prerequisite: ART 101 or instructor permission.

ART 103 S,F,W,Sp 3 credits
Advanced Drawing HUM, PERF

Expands on experience gained in ART 101 and 102, and adds more in-depth understanding of the materials and concepts in visual communication. This is a project oriented class, and may include nude model.

Prerequisite: ART 102 or instructor permission.

ART 106 F,W,Sp 5 credits
Two-Dimensional Design HUM

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

Prerequisites: None

ART 107 F,W,Sp 5 credits
Color Theory and Design HUM

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

Prerequisites: None

ART 108 5 credits
Three-Dimensional Design HUM, PERF

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

Prerequisites: None

ART 109 Sp 1 credit
Art Gallery I ELEC, HUM

Introduces the process of handling, installing, and de-installing artworks for an art exhibition. Focuses on artwork handling, install, and de-install process will focus on safety practices and proper art handling methods. This is a co-curricular course with Art Club.

Prerequisites: None

ART 110 Sp 1 credit
Art Gallery Skills II ELEC, HUM

Introduces the process of handling and installing artworks for the annual student exhibition. Focuses on safety practices, proper art handling methods, exhibition planning skills through communication with the juror. This is a co-curricular course with Art Club.

Prerequisite: None

ART 111 F,W,Sp 3 credits
Beginning Painting HUM, PERF, ELEC
 Introduces the use of oil and acrylic painting media and the study of traditional and contemporary painting concepts and techniques. Course may include a nude model.

Prerequisite: None

ART 112 F,W,Sp 3 credits
Intermediate Painting HUM, PERF, ELEC

Presents more in-depth exploration of painting materials, techniques, and subject matter. Course may include a nude model.

Prerequisite: ART 111 or Instructor permission

ART 113 F,W,Sp 3 credits
Advanced Painting HUM, PERF, ELEC

Offers advanced painting theory and practice and the development of individual expression in subject matter and composition. Course may include a nude model.

Prerequisite: ART 112 or Instructor permission

ART 121 W,Sp 5 credits
Intro to Digital Imaging and Illustration ELEC, HUM

Introduces basic technical skills, key concepts, and software training for the creation of digital images and illustrations. Provides an overview of Adobe Photoshop and Illustrator covering the Mac operating system. Presents creation, control, and manipulation of raster images and vector graphics for print, web, and motion media. Covers tools, techniques, devices, electronic color theory, graphic formats, image and device resolution, layering and combining images. Basic computing skills recommended.

Prerequisites: None

ART 122 W,Sp 5 credits
Intermediate Digital Imaging and Illustration ELEC, HUM

Develops technical skills and concepts for the creation of digital images and illustrations. Emphasizes creation, control, and manipulation of raster images and vector graphics for print, web, and motion media. Expands knowledge of tools in Adobe Photoshop, Adobe Illustrator, and the Mac operating system. Prerequisite: ART 121 or Instructor permission

ART 123 W,Sp 5 credits
Advanced Digital Imaging and Illustration ELEC, HUM

Expands on experiences in ART 121 and ART 122. Emphasis is placed on research, ideation, and personal expression through the creation of raster and vector graphics. Further develops knowledge of tools in Adobe Photoshop, Adobe Illustrator, and the Mac operating system.

Prerequisite: ART 122 or Instructor permission

ART 131 W,Sp 5 credits
Intro to Graphic Design ELEC, HUM

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

Prerequisites: None

ART 132	W,Sp	5 credits
Intermediate Graphic Design		
ELEC.		HUM

Develops use of concepts and methods to create intermediate level graphic design. Emphasizes document design, layout, use of color, and typography for print and web communications. Expands knowledge of Adobe InDesign tools and Mac operating systems.

Prerequisite: ART 131 or Instructor permission

ART 133 W,Sp 5 credits
Advanced Graphic Design ELEC, HUM

Expands on experiences in ART 131 and ART 132. Emphasizes research, ideation, and the process of design thinking to achieve professional graphic design solutions for print and web communications. Advances knowledge of Adobe InDesign tools and Mac operating systems.

Prerequisite: ART 132 or Instructor permission

ART 141	F,W,Sp	3 credits
Beginning Ceramics		HUM, PERF

Introduces the study of ceramic materials, and techniques including hand construction and wheel throwing.

Prerequisites: None

ART 142	F,W,Sp	3 credits
Intermediate Ceramics	HUM, PERF	

Involves more advanced techniques of hand construction and wheel throwing. Beginning glaze formation and kiln-firing processes are included.

Prerequisite: ART 141 or Instructor permission

ART 143	F,W,Sp	3 credits
Advanced Ceramics		HUM, PERF

Continues wheel and hand forming techniques with emphasis on aesthetics, including decoration and glazing.

Prerequisite: ART 142 or Instructor permission

ART 150	F	3 credits
Black and White	White	Darkroom
Photography		HUM, PERF

Explores the fundamentals of black and white film photography. Introduces camera and lens operations, exposure, and composition. Students will process black and white film and make photographic prints in the darkroom. Students will need their own manual 35mm SLR camera, and are responsible for purchasing film and darkroom supplies. Course supply kits will be available in the college bookstore.

Prerequisites: None

ART 151	F,W	5 credits
Introduction to Digital Photography		
HUM.		PERF

Introduces the fundamentals of digital photography; camera and lens operation, exposure, composition, and inkjet printing. Develops skills related to digital editing by using software to correct, and enhance photographs. Examines artists, and photographic techniques that influence the field of fine art photography. Students must provide their own manually adjustable digital camera.

Prerequisites: None

Prerequisite: None

ART 227 **W** **5 credits**
History of Western Art II: DIV HUM, DIV
 History of Western Art is an investigation into the development of art from early medieval through Renaissance Europe, approximately 500 CE to 1600 CE. This study includes a comprehensive look at art and architecture as it reflects changing world views as art continues to interpret culture and to shape contemporary lives. Prerequisite: None

ART 228 **Sp** **5 credits**
History of Western Art III: DIV HUM, DIV
 Investigates the development of art from 17th century Europe, through its introduction to America, and into 21st Century Europe and the United States. This study includes a critical evaluation of interpretations by artists through their art to address issues of difference, power, power, and discrimination. Art continues to reflect culture and to shape contemporary lives. Prerequisite: None.

ART 230 **Sp** **4 credits**
Typography **ELEC, HUM**
 Introduces typographic history via projects that emphasize letter forms, use of the grid, developing typographic hierarchies and syntax, and combining type and image. Focuses on identifying and applying typographic details in order to communicate effectively. Basic design and computer skills or completion of ART 131 Intro to Graphic Design recommended. Prerequisites: None

ART 288 **1-15 credits**
Cooperative Work Experience
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success. Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BUS 294 must be taken prior to or concurrent with this course.

ART 299 **1-10 credits**
Independent Study
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract. Prerequisites: By instructor permission only.

Astronomy (ASTR)

ASTR& 101 **S,F** **5 credits**
Intro to Astronomy **NSL**
 Provides for student investigation of information gathered on distant objects by telescope, spectrometer, radio, satellites, and other instruments. Students pursue both the knowledge and processes for acquiring knowledge of the moon, sun, planets, comets, and meteors of the solar system, distant stars, nebulae, clusters, and galaxies, and their theoretical evolution. Prerequisite: None.

ASTR 288 **1-15 credits**
Cooperative Work Experience

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

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

ASTR 299 **1-10 credits**
Independent Study

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

Prerequisites: By instructor permission only.

Automotive Technology (AMTC)

AMTC 100 **S,W** **5 credits**
Essentials of Mechanics **REEL**

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

Prerequisites: None

AMTC 104 F 15 credits**Automotive Electrical Systems REEL**

Introduces the theory of electricity fundamentals including solid state technology. Discusses electrical safety. Includes solving and proving Ohm's Law in series, parallel, and series-parallel circuits. Includes automotive wiring and circuits, including how to read and understand wiring diagrams to diagnose an electrical malfunction. Covers circuit tracing and wiring repair techniques. Presents diagnosis and repair of low voltage systems (12V), including batteries, starting systems, charging systems, instrumentation and warning devices, lighting systems, power accessories, and computer operation and circuit analysis. Discusses high voltage energy and electronic ignition systems.

Prerequisites: None

AMTC 105 S,Sp 5 credits**Vehicle Climate Control REEL**

Introduces the theory of operation, design, diagnosis and repair of both manual and automatic heating, ventilation and air conditioning systems (HVAC) used in automobiles, trucks and heavy equipment. Emphasizes component identifications, performance testing, recovering, evacuation and recharging. Covers materials necessary to pass ASE (A7) test. Course is cross listed with DHET 105.

Prerequisite: AMTC 104 or DHET 104 or Instructor Permission

AMTC 114 W 15 credits**Automotive Chassis REEL**

Introduces the theory of hydraulics, fundamentals of manual, power, drum, and disc brake systems. Covers theory, diagnosis, and repairing anti-lock brakes and traction control systems. Include scan tool diagnosis as well as functional and visual tests. Prepares the student to perform all aspects of automotive type suspension and alignment work, including powered and non-powered steering systems, inspection, diagnosis, adjustment, and repair of front and rear suspension systems, and related components such as tires and wheels. Use of four-wheel alignment equipment is an integral part of this course.

Prerequisites: None

AMTC 124 Sp 15 credits**Automotive Engines REEL**

Provides introductory content for the student with little or no experience with gasoline engines. Covers theory of operation, performance factors, and routine diagnosis and maintenance of spark ignition engines. Includes removing, inspecting, cleaning, measuring, machining, re-assembling, re-installing, and testing gasoline engines. Includes rebuilding a gasoline engine.

Prerequisites: None

AMTC 206 W 15 credits**Fuels and Emissions REEL**

Introduces the theory of operation, design, diagnosis and repair of automotive fuel systems. Includes injection, storage, and delivery systems. Covers materials necessary to pass ASE (A8) certification.

Prerequisite: AMTC 104 or Instructor Permission

AMTC 207 Sp 15 credits
Computer Engine Controls REEL

Introduces advanced theory, operation, diagnosis and repair of automotive fuel systems. Discusses injection, storage, and delivery systems. Covers materials necessary to pass ASE (A8 and L1) certification.

Prerequisite: AMTC 104 or Instructor Permission

AMTC 214 F 15 credits
Automotive Drivetrains REEL

Introduces hydraulic principle of pressure and force multiplication, operation, diagnosis and repair of automotive automatic transmissions and transaxles. Presents the theory of operation, diagnosis and repair of clutches, manual transmission/transaxles, drivelines, drive axles and transfer cases. Covers all of the mechanical components used to transfer power from the engine to the drive wheels - both 2 and 4 wheel drive.

Prerequisite: AMTC 104 or Instructor Permission

AMTC 288 1-15 credits
Cooperative Work Experience

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

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

AMTC 299 1-10 credits
Independent Study

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

Prerequisites: By instructor permission only.

Biology (BIOL)

BIOL& 100 F,W,Sp 5 credits
Survey of Biology NSL

Examines major concepts in biology -- the science of life -- and the nature of science itself and includes survey of fundamental life processes by which organisms live, grow, reproduce, and interact with their environment. This course is recommended for students interested in a brief overview of biology. Laboratory is included.

Prerequisite: None

BIOL& 160 F,W,Sp 5 credits
General Biology with Lab: Cell/ Molecular NSL

Introduces cell biology including the chemistry of life, the structure, reproduction, and metabolism of cells, genetics, and evolutionary biology. Includes inquiry based lab.

Prerequisite course for BIOL& 241 (Human Anatomy and Physiology I) and BIOL& 260 (Microbiology). A grade of C or higher is required in order to advance to BIOL& 241 or BIOL& 260. Prerequisites: None Corequisites: None

BIOL& 221 **F** **5 credits**
Majors Ecology/Evolution: w/Lab **NSL**
 Examines evolution, Mendelian genetics, biodiversity, and ecology. First of a three course series. Laboratory included.
 Prerequisites: None Corequisites: None

BIOL& 222 **W** **5 credits**
Majors Cell/Molecular: w/Lab **NSL**
 Examines structure and function of biomolecules, cell structure and function, metabolism and energetics, current applications of biotechnology and molecular biology. Second of a three course series. Laboratory included.
 Prerequisite: None Corequisite: None

BIOL& 223 **Sp** **5 credits**
Majors Organismal Phys: w/Lab **NSL**
 Examines organismal (animal and plant) development and physiology. Final course of a three course series. Laboratory included.
 Prerequisites: None

BIOL& 241 **S,F,W,Sp** **5 credits**
Human A & P 1 **NSL**
 Provides a study of structure and function of the human body. Topics include the cell, tissues, skeletal system, articulations, muscular system, and nervous system. This is the first of a two-course sequence. This course may not be transferable unless the entire sequence (BIOL& 241 and 242) is taken at LCC.
 Prerequisite: BIOL& 160, BIOL& 260 or BIOL& 222 with a grade of C or above.
 Prerequisite waiver may be granted with appropriate documentation to the instructor.

BIOL& 242 **S,F,W,Sp** **5 credits**
Human A & P 2 **NSL**
 Continues the study of structure and function of the human body. Topics include endocrine, circulatory, lymphatic, respiratory, digestive, urinary, and reproductive systems; and fluid and electrolyte balance. This is the second part of a two-course sequence. This course may not be transferable unless the entire sequence (BIOL& 241 and 242) is taken at LCC. Laboratory is included.
 Prerequisites: BIOL& 241 with a C or better. Prerequisite waiver may be granted with appropriate documentation to the instructor.

BIOL& 260 **S,F,W,Sp** **5 credits**
Microbiology **NSL**
 Introduces the fundamentals of microbiology, including: evolution, microbial structures and functions, metabolism, growth, genetics, classification and pathogenesis; virology; principles of infectious disease; host defenses and antimicrobial drugs. Laboratory includes techniques for isolation, cultivation and identification of microbes.
 Prerequisites: BIOL& 160 or BIOL& 222 with a grade of C or better or instructor permission.

BIOL 109 S 5 credits
Energy and Life: Biological
Sciences NSL

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

BIOL 127 W 5 credits
Natural Science of Selected Global
Regions NSCI

Focuses on the ecology of selected regions, including ecosystems and human impact on ecosystems. Investigates the biodiversity, characteristics, and interactions of the flora and fauna within various habitats and ecosystems. Involves field observations and experiences. Does not include a lab component.

Prerequisites: Enrollment in Study Abroad Program and eligible for ENGL& 101 OR instructor permission.

BIOL 130 5 credits
Biodiversity of the Pacific
Northwest NSL

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

Prerequisite: ENGL& 101 or instructor permission.

BIOL 150 W 5 credits
Genetics and Society NSL

Introduces the discipline of genetics by interweaving classical genetics concepts with current issues including genetic diversity, the human genome, biotechnology, and genetic disorders. Presents the tools necessary for making informed decisions regarding the impact of genetic advances on individual lives and society, Laboratory includes exploration of DNA structure, DNA, gene, and protein identification, and problem solving using activities and biotechnology equipment.

Prerequisites: None

BIOL 179 **W,Sp** **5 credits**
Human Biology & Exercise **NSL**
 Introduces fundamental biological principles from cells to human organ systems. Provides comprehensive coverage of the physiology of exercise and its role in successful integration of exercise principles into exercise programs. Laboratory is included.
 Prerequisites: None

BIOL 288 **1-15 credits**
Cooperative Work Experience
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.
 Prerequisites: Instructor or Cooperative Education Coordinator permission
 Concurrent requirements: COLL 289 or BUS 294 must be taken prior to or concurrent with this course.

BIOL 297 **F,W,Sp** **1 credit**
Special Topics in Microbiology **NSCI**
 Discusses selected advanced topics in microbiology. May be repeated for credit as topics change each time course is offered.
 Prerequisites: BIOL& 260 or concurrent enrollment

BIOL 298 **F,W,Sp** **1 credit**
Special Topics in Human Physiology **NSCI**
 Discusses selected advanced topics in human physiology. May be repeated for credit as topics change each time course is offered.
 Prerequisites: BIOL& 241 or concurrent enrollment.

BIOL 299 **1-10 credits**
Independent Study
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.
 Prerequisites: By instructor permission only.

Blueprint (BLPT)

BLPT 150 **5 credits**
Machinists Blueprint Reading **REEL**
 Provides basic general information in reading and understanding plans and drawings that will be useful to vocational students. Focusing on line and symbol conventions used in industrial blueprints and visualization of solid objects from orthographic and isometric projections, the course leads to development of required skills for industrial design and problem solving. It also provides comprehensive information needed by persons in the machine trades for reading industrial blueprints and emphasizes specifications of materials, geometrical tolerancing, surface finishes, AWS welding symbols, and related foundry processes.
 Prerequisite: None

BLPT 160 **5 credits**
Blueprint Reading for Welders **REEL**
 Provides basic general information in reading and understanding plans and drawings that will be useful to students in the welding field, focusing on identifying basic lines, dimensions, structural shapes, welding symbols, and basic joints for welding fabrication and practical layout design.
 Prerequisite: MATH 106 or higher or instructor permission.

BLPT 299 **1-10 credits**
Independent Study
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.
 Prerequisites: By instructor permission only.

Business (BUS)

BUS& 101 **S,F,W,Sp** **5 credits**
Intro to Business **REEL, SOCS**
 Surveys the business environment and many important elements of business including marketing, finance, accounting, computers, labor unions, small business management, economics, and the functions of management.
 Prerequisite: None

BUS& 201 **F,W,Sp** **5 credits**
Business Law **SOCS**
 Introduces the law, sources of law, legal thinking, structure of courts, alternative dispute resolution, basic civil procedure, business organization, government constitutional authority and regulation, agency, employment and criminal law as relating to business, real property and landlord/tenant law, torts, international business law issues and ethics. Includes extensive concentration on contract law including Article 2 of the Uniform Commercial Code.
 Prerequisites: ENGL& 101 OR BUS 119, or equivalent, with a grade of C or better, or instructor permission.

BUS 100 **S,F,W,Sp** **3 credits**
Foundations of Business Success **REEL**
 Explores foundational issues for success in college that correlate to success in business. In order to improve college achievement and business acumen, students will learn strategies in reading, study habits, test-taking, communications, mathematics, critical thinking, and teamwork.
 Prerequisite: None

BUS 104 **S,F,W,Sp** **5 credits**
Business Math Applications **REEL**
 Teaches the use of basic mathematical processes to solve business applications. Topics include percentages, simple interest, compound interest, annuities, markups and markdowns, payroll, trade and cash discounts, banking, and solving problems with equations and formulas.
 Prerequisite: BUS 100 or concurrent enrollment, MATH 78/79 with a grade of C or better or CCP 79 with a grade of B or better or instructor permission.

BUS 118 **F,Sp** **5 credits**
Business & Corporate Ethics **REEL**
 Surveys current business ethical and personal integrity issues through a case study model. Students develop an understanding of the ethical decision making process, focusing on relevant cases, making considerations through a lens of social responsibility, and current ethical perspectives. Emphasis of ethical considerations will be placed on the digital business environment, artificial intelligence, corporate social responsibility, corporate culture, gender identity, and environmental sustainability.
 Prerequisite: None

BUS 207 **3 credits**
Statistical Projects NSCI

Provides an opportunity for students to apply the statistical processes learned in MATH 210/BUS 206 by designing their own statistical project. Topics may include nonparametric statistics, sampling techniques, design of experiments and data analysis.

Prerequisite: MATH 210 or BUS 206 with a grade of C or better or concurrent enrollment in MATH 210 or BUS 206.

BUS 240 **F** **5 credits**
Principles of Supervision

Analyzes basic functions of the supervisory-level management along with emphasis on skills needed to be an effective leader/manager of a diverse workforce. Emphasis will be on the differences between supervisors and upper management.

Prerequisite: None

BUS 244 **W** **5 credits**
Human Resource Management

Introduces the fundamental concepts of Human Resource Management, including hiring skills, long-term planning, employee laws, recruitment, staffing, training, compensation programs (both direct and indirect), collective bargaining, employee relations, safety training, health and EAPs (employee assistance programs).

Prerequisite: None

BUS 245 **S,F,Sp** **5 credits**
Principles of Management

Offers the student a history of management and its various theories. Covers the principles and application of planning, organizing, leading and controlling. Students also view management from the roles of supervisory, middle and top management.

Prerequisite: None

BUS 259 **S,Sp** **5 credits**
Starting/Managing a Small Business REEL

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

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

BUS 264 **S,W** **5 credits**
Principles of Marketing

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

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

BUS 265 **W** **5 credits**
Advertising

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

Prerequisite: None

BUS 270 W,Sp 5 credits
Introduction to Project Management

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

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

BUS 288 1-15 credits
Cooperative Work Experience

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

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

BUS 290 5 credits
Design Thinking & Entrepreneurship

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

Prerequisites: None

BUS 294 S,F,W,Sp 2 credits
Career Success REEL

Provides preparation for pursuing a career in business, business technology, and Information Technology with a focus on self-assessment, job search, application process documents, and interviewing techniques.

Prerequisite: Program Advisor Permission

BUS 299 1-10 credits
Independent Study

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

Prerequisites: By instructor permission only.

Business Technology (BTEC)

BTEC 10 S,F,W,Sp 1-5 credits
Keyboarding with Speed and Accuracy REEL

Introduces keyboarding using the computer and individualized instruction media. Provides instruction and practice on the alphabet, number, symbol, and 10-key numeric keypad. Provides an individualized skill-building program for students who need or want to increase their keyboarding accuracy. Copy paragraph material at a speed of not less than 25 words per minute for one minute with 2 or fewer errors.

Prerequisites: None

BTEC 104 F,Sp 5 credits
Introduction to Business Technology
REEL

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

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

BTEC 110 S,F,W,Sp 1-5 credits
Keyboarding with Speed and Accuracy
REEL

Introduces keyboarding using the computer and individualized instructional media. Provides instruction and practice on the alphabet, number, symbol, and 10-key numeric keypad. Creates an individualized skill-building program for students who need or want to increase their keyboarding accuracy. Copy paragraph material at a speed of not less than 25 words per minute for one minute with 2 or fewer errors.

Prerequisites: None

BTEC 111 S,F,W,Sp 5 credits
Word Processing I
REEL

Utilizes Microsoft Word features to format, edit, maintain, merge, and reference business documents. Includes creating tables and using SmartArt graphics.

Prerequisites: BTEC 104 with a grade of C or better or instructor permission, and a minimum keyboarding speed of 35 wpm or concurrent enrollment in BTEC 105.

BTEC 112 S,Sp 5 credits
Word Processing II
REEL

Presents advanced word processing features using Microsoft Word. Examines creating letters, reports, research papers, brochures, newsletters, and other documents. Introduces customizing, proofing, automation, specialized navigation and referencing, working with shared documents, and document protection and security.

Prerequisites: BTEC 111 with a grade of C or better or instructor permission, and a minimum keyboarding speed of 45 wpm or concurrent enrollment in BTEC 105.

BTEC 120 F,W 3 credits
Specialized Applications for Business
REEL

Introduces the most current business software applications to perform various business functions. Skills learned include managing and sharing multiple forms of information, creating and understanding technical flowchart diagramming, managing timelines, resources, tasks and budgets to measure and increase productivity. Understand how to utilize specialized applications to make more informed and accurate business decisions. Students will complete a capstone project utilizing all three applications.

Prerequisites: CS 110 or BTEC 104 with a C or better, or Instructor Permission

BTEC 130 S,F,W,Sp 1 credit
Electronic Calculators I
REEL

Develops speed and accuracy by touch on the ten-key electronic calculator and the computer numeric keypad. Includes using special features of a calculator and applying learned skills to business problems. This course is required for the Accounting Technician program.

Prerequisite: None.

BTEC 131 F,W,Sp 5 credits
Introduction to Spreadsheets REEL

Introduces the use of spreadsheet programs in business applications. Provides practical experience in using a spreadsheet to solve common business problems. (Formerly CS 121)

Prerequisites: BTEC 104 or CS 110, and BUS 104 or MATH 88 or MATH 97 or CCP 88 or CCP 97, with a C or higher, or instructor permission.

BTEC 135 F,W,Sp 5 credits
Advanced Data Analysis REEL

Offers an introduction to the study and use of computerized database management systems and advanced spreadsheet topics. This course provides basic database theory and application in a disciplined approach to problem solving in a business environment. Explores complex spreadsheet features such as macros, data management, and advanced formulas and functions to solve business problems. Demonstrates spreadsheets as business analytics and statistical analysis tools. Explores the integration features of both applications to find advanced data analysis solutions for informed business decisions.

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

BTEC 145 S,F,W,Sp 1-5 credits
Introduction to MS Word REEL

Introduces students to Microsoft Word features that may be used in both personal and business environments. Topics include basic and intermediate-level document formatting. Students will have an opportunity to complete the MOS Word Core Certification to earn a credential for MS Word Proficiency. This course is offered as an elective for students who wish to increase their technical expertise with computer applications.

Prerequisites: None

BTEC 146 S,F,W,Sp 2 credits
Powerpoint Fundamentals REEL

Introduces presentation graphics, using Microsoft PowerPoint to create electronic slide shows. Students create and edit slide shows, apply templates, format slides, enter text, print presentations, create charts, and employ other graphical functions and features. Includes a basic coverage of design for presentation best practices. Students will have the opportunity to complete the Microsoft Office Applications Exam for PowerPoint.

Prerequisites: None

BTEC 147 S,F,W,Sp 3 credits
Introduction to Digital Publishing REEL

Provides hands-on instruction using Microsoft Publisher, image editing applications, and video editing applications. Emphasizes formatting and enhancing text, developing styles, using columns and tables with special effects, working with graphics, and producing short videos to create professional-looking publications for both print and social media. Students will complete a final comprehensive presentation project.

Prerequisites: None

BTEC 148 F,W,Sp 2 credits
Introduction to Outlook REEL

Offers an introduction to using Microsoft Outlook communication and scheduling as a business tool. This course is designed to prepare students with a full understanding of features available in Microsoft Outlook. Topics include email, contacts, schedule management, and instant messaging.

Prerequisite: None

BTEC 150 S,F,W,Sp 3 credits
Introduction to Google Applications REEL

Introduces Google Application features that may be used in both personal and business environments. Topics include web-based communication, collaboration, media, and locational tools. Students will use web-based tools to create and manage a Google Site.

Prerequisites: None.

BTEC 155 S,F,W,Sp 3 credits
Website Management REEL

Covers the processes involved in identifying client needs, target audience, and content management for website deployment. Students will explore domain name management, ISP relationships, media management, user group management, and integration of evolving technology. Students will learn to use an advanced data analytics tool to evaluate website traffic.

Prerequisites: None

BTEC 160 S,W 5 credits
Medical Scribe REEL

Introduces working alongside physicians and healthcare practitioners to document patient encounters in an electronic records system, build a medical record, and chart patient progress and interactions for accuracy in the medical billing process.

Prerequisites: ENGL& 101, BTEC 181 OR MEDA 101, AND MEDA 120 OR BIOL& 241 AND BIOL& 242; all courses must be completed with a C or better.

BTEC 161 F 5 credits
Intro to ICD-10 Coding in the Medical Office Part I REEL

Covers the rules and guidelines utilized in the assignment of ICD-10 codes. Students will select and assign the appropriate codes to diagnoses and procedures performed in both inpatient and outpatient settings, and learn to extract diagnoses from a patient's record. Prerequisite: BTEC 181 and MEDA 120, both with a grade of C or higher or Instructor Permission

BTEC 162 W 5 credits
Intro to ICD-10 Coding in the Medical Office Part II REEL

Continues to develop and reinforce the rules and guidelines utilized in the assignment of ICD-10 codes. Students will select and assign the appropriate codes to diagnoses and procedures performed in both inpatient and outpatient settings.

Prerequisite: BTEC 161 with a grade of C or better or instructor permission.

BTEC 163 Sp 5 credits
CPT Coding REEL

Introduces the rules and guidelines of Current Procedural Terminology (CPT) coding, which are utilized in the reimbursement of outpatient procedures and surgeries. Students learn to use the CPT coding book. Course also introduces the evaluation and management processes used for physician reimbursement and the government regulations regarding CPT coding.

Prerequisites: BTEC 162 with grade C or better or instructor permission.

BTEC 164 S,F,W,Sp 2 credits
Medical Office Law & Ethics REEL

Presents the legal, ethical, and bioethical issues relevant to medical office settings. Course features legal cases and legislation. Topics include patient confidentiality, advance directives, consents, professional liability, medical malpractice, release of information, and the professional code of ethics.

Prerequisite: None

BTEC 165 Sp 5 credits
Cultural Awareness for Care Professionals: DIV DIV, REEL

Explores the cultural disparities in healthcare. Examines cultural and linguistic differences which limit the access to healthcare or prevent the adoption of health promoting or harm-reducing behaviors. Presents effective cross-cultural communication through the use of relevant languages, respectful attitudes, and cultural knowledge. Provides strategies to apply cultural awareness skills in all aspects of work with clients, families, community members, and colleagues.

Prerequisites: None

BTEC 170 S,F,Sp 5 credits
Community Health Advocacy REEL

Provides an overview of information and skills utilized by Community Health Workers (CHW) to foster healthy behavior changes in clients; including, providing people with information, tools, and encouragement to help them improve their health and stay healthy over time. Explores working with clients, family or community members, and with health and wellness providers to address issues that may limit opportunities for healthy behavior. Examines the Community Healthcare Workers role as health educator, wellness coach, and advocate.

Prerequisites: None

BTEC 171 F 3 credits
Medical Reception Procedures REEL

Provides a foundation of basic knowledge and skills for employment in a physician's office or clinic. Includes the topics of reception techniques, medical records and related laws, professional communication, appointment scheduling, telephone procedures, and office maintenance.

Prerequisites: ENGL 099 (was ENGL 100) or higher.

BTEC 172 W 3 credits
Medical Office Procedures REEL

Provides instruction and practice for advanced administrative support skills in the medical office. Topics include: payroll, banking, fee schedules, credit and collections, patient and insurance billing, bookkeeping, coding, and professional communication.

Prerequisites: ENGL 099 (was ENGL 100) or instructor permission, MATH 79 or CCP 79, and BTEC 171, all with a grade of C or better.

BTEC 173 **Sp** **3 credits**
Computers in the Medical Office REEL
 Introduces computer software programs and electronic health records used in healthcare practice management. Prepares students to complete administrative tasks in healthcare, including bookkeeping, billing, claims submission, appointment scheduling. Presents various computer functions including those completed in electronic health records.
 Prerequisites: BTEC 172 with grade C or better

BTEC 176 **F,W** **5 credits**
Social Determinants of Health REEL
 Introduces the underlying social factors that contribute to health, wellness, and illness. Elaborates on the interplay of social, economic, behavioral, environmental, and other factors that influence the health of populations and sub-groups. Explores how an understanding of determinants of health can influence public policy, planning, and research to promote a healthier society with greater health equity.
 Prerequisites: None

BTEC 177 **W,Sp** **5 credits**
Trauma Informed Care REEL
 Introduces the field of trauma and trauma-informed care. Examines the history of traumatic studies, as well as the current trauma-informed approaches to understanding the providing positive interventions for human psychological trauma. Presents trauma-informed approaches designed to provide healing and self-care to survivors. Addresses vicarious trauma and the need for practitioner self-care.
 Prerequisites: None

BTEC 178 **Sp** **5 credits**
Building Sustainable Community Capacity REEL
 Presents knowledge and skills necessary for Community Health workers as community organizers and capacity builders. Explores necessary components of promoting community action and garnering support and resources from the community to implement new health and wellness activities. Discusses skills and knowledge needed to motivate individuals and organizations to seek policy and social changes.
 Prerequisite: BTEC 176

BTEC 181 **S,F,W,Sp** **3 credits**
Medical Terminology I REEL
 Provides a foundation for building a medical vocabulary including the study of prefixes, roots, suffixes, combining forms, and pronunciation. Emphasis is on using medical terms accurately in documenting and reporting patient care procedures.
 Prerequisite: None

BTEC 182 **S,F,W,Sp** **3 credits**
Medical Terminology II REEL
 Continues the focus of BTEC 181 incorporating actual medical records and demonstrating how medical terminology is used in the clinical setting.
 Prerequisite: BTEC 181 or MEDA 101 each with a grade of C or better.

BTEC 20 S,F,W,Sp 3 credits
Specialized Applications for Business REEL

Introduces the most current business software applications to perform various business functions. Skills learned include managing and sharing multiple forms of information, creating and understanding technical flowchart diagramming, managing timelines, resources, tasks and budgets to measure and increase productivity. Understand how to utilize specialized applications to make more informed and accurate business decisions.

Prerequisites: CS 110 or BTEC 104 with a C or better, or Instructor Permission

BTEC 230 S,F,W,Sp 2 credits
Electronic Calculators II REEL

Develops speed and accuracy by touch on the ten-key electronic calculator and the computer numeric keypad. Includes using special features of a calculator and applying learned skills to business problems. This course is required for all BTEC degree programs.

Prerequisite: None

BTEC 288 1-15 credits
Cooperative Work Experience

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

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

BTEC 299 1-10 credits
Independent Study

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

Prerequisites: By instructor permission only.

BTEC 45 S,F,W,Sp 1-5 credits
Introduction to MS Word REEL

Introduces students to Microsoft Word features that may be used in both personal and business environments. Topics include basic and intermediate-level document formatting. This elective course is intended for basic skills for pre-college students.

Prerequisites: None

BTEC 46 S,F,W,Sp 2 credits
Powerpoint Fundamentals REEL

Introduces presentation graphics, using Microsoft PowerPoint to create electronic slide shows. Students create and edit slide shows, apply templates, format slides, enter text, print presentations, create charts, and employ other graphical functions and features. Includes a basic coverage of design for presentation best practices.

Prerequisites: None

BTEC 47 S,F,W,Sp 3 credits
Introduction to Digital Publishing
REEL

Provides hands-on instruction using Microsoft Publisher, image editing applications, and video editing application. Emphasizes formatting and enhancing text, developing styles, using columns and tables with special effects, working with graphics, and producing short videos to create professional-looking publications for both print and social media.

Prerequisites: None

BTEC 50 S,F,W,Sp 3 credits
Introduction to Google Applications
REEL

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

Prerequisites: None.

BTEC 55 S,F,W,Sp 3 credits
Website Management
REEL

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

Prerequisites: None

Chemistry (CHEM)

CHEM& 100 S,F,W,Sp 5 credits
Preparatory Chemistry

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

Prerequisite: None

CHEM& 110 S,F,W,Sp 5 credits
Chemical Concepts w/Lab
NSL

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

Prerequisite: Completion of or concurrent enrollment in MATH 79 or CCP 79.

CHEM& 121 S,F,W,Sp 5 credits
Intro to Chemistry
NSL

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

Prerequisite: CHEM& 100 or CHEM& 110 or one year of high school chemistry, and completion of, or concurrent enrollment in MATH 88 or MATH 87 or CCP 88 or CCP 97.

CHEM& 131 Sp 5 credits
Intro to Organic/Biochem NSL

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

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

CHEM& 161 F,W 5 credits
General Chem w/Lab I NSL

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

Prerequisites: MATH 98 or CCP 98 with CHEM& 100; OR MATH 98 with high school chemistry; OR MATH& 142

CHEM& 162 F,W,Sp 5 credits
General Chem w/Lab II NSL

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

Prerequisites: C or better in CHEM& 161

CHEM& 163 S,Sp 5 credits
General Chem w/Lab III NSL

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

Prerequisites: C or better in CHEM& 162

CHEM& 261 F 5 credits
Organic Chem w/Lab I NSL

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

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

CHEM& 262 W 5 credits
Organic Chem w/Lab II NSL

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

Prerequisite: CHEM& 261 (was CHEM 251).

CHEM& 263 Sp 5 credits
Organic Chem w/Lab III NSL

Continues the exploration of the chemistry of organic compounds including structures, nomenclature, and synthesis of basic organic compounds. The course covers the families of amines, carbonyls, aromatics, biochemical compounds and other groups of compounds. Reactions and synthesis of various compounds will be studied and performed. Products of these processes will be examined using physical and spectroscopic means. The course includes a qualitative analysis of organic compounds. This is the third of a three-quarter sequence designed for science majors in chemistry-related fields. Laboratory is included.

Prerequisite: CHEM& 262 (was CHEM 252).

CHEM 231 Sp 5 credits
Quantitative Analysis NSL

Provides a study of the qualitative and quantitative analytical applications of chemistry including the mathematical treatment of data collected. It will examine gravimetric and volumetric wet chemical analysis. Instrumental analysis of both organic and inorganic substances will be done. This is a one-quarter course required for students who are chemistry and chemical engineering majors.

Prerequisite: Completion of, or concurrent enrollment in CHEM& 163 (was CHEM 153).

CHEM 288 1-15 credits
Cooperative Work Experience

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

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

CHEM 299 1-10 credits
Independent Study

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

Prerequisites: By instructor permission only.

Chinese (CHIN)

CHIN& 121 **5 credits** **Chinese I: DIV** **HUM, DIV**

Introduces Mandarin language and Chinese culture. Emphasizes listening, pronunciation, basic vocabulary and fundamentals of grammar. Introduces Chinese characters. Explores Chinese culture, including social interaction, family relationships, artistic expression, and values.

Prerequisite: None

CHIN& 122 **5 credits** **Chinese II: DIV** **DIV, HUM**

Continues the study of the Mandarin language and Chinese culture, building on the basic language skills. Enhances abilities with pronunciation, grammar and vocabulary. Further explores Chinese culture, including proverb and folk stories. Expands on recognition and writing of Chinese characters.

Prerequisites: None

CHIN& 123 **5 credits** **Chinese III: DIV** **DIV, HUM**

Continues the study of the Mandarin language and Chinese culture, expanding on previous knowledge to develop beginning fluency in understanding, speaking, reading, and writing Mandarin. Further explores Chinese culture and regional identities.

Prerequisite: None

CHIN 288 **1-15 credits** **Cooperative Work Experience**

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

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

CHIN 299 **1-10 credits** **Independent Study**

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

Prerequisites: By instructor permission only.

College Success (COLL)

COLL 101 **S,F,W,Sp** **2 credits** **College Success 101** **REEL**

Explores foundational issues for success in college, including an introduction to campus resources, college culture, and digital communication skills. Develops behaviors and attitudes characteristic of successful students; develops basic reading, study, and test-taking strategies; and creates a plan for success during the next quarter and beyond. Identifies and assesses individual strengths, skills, and characteristics in order to create personal, academic, and career goals; explore and research possible career pathways to achieve goals.

Prerequisites: None Corequisites: None

COLL 108 W 3 credits
Service Learning REEL

Provides opportunities for the improvement of written and oral communication skills. Integrates international students into service learning projects that teach about American culture, skills for future careers, and to build relationships. Requires students to devise a plan for service learning project, set goals for the project and measure overall success. Develops relationships with community partners and helps students learn about accountability and about life in America. This course will be required for all international students as they enter Lower Columbia College or upon successful completion of all IESL courses.

Prerequisites: Instructor permission.

COLL 110 Sp 2 credits
Test of Essential Academic Skills (TEAS) Preparation REEL

Supports students in preparing for the Test of Essential Academic Skills (TEAS), which is a requirement for the application to the Nursing Program at Lower Columbia College. Reviews TEAS academic skills for reading, math, science, and English language usage. Suggests effective study skills and strategies, including time management, cognitive learning process, stress and its effect on memory, test anxiety, and test-taking strategies. Provides information about TEAS testing at the LCC Testing Center.

Prerequisites: None

COLL 288 1-15 credits
Cooperative Work Experience

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

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

COLL 289 1 credit
Employment Portfolio Seminar REEL

Provides students with skills and tools necessary to apply for employment. Seminar topics include but are not limited to employment portfolio, preparing for job interviews, and use of resources in the LCC Career and Employment Center.

Prerequisites: None

COLL 74 S,F,W,Sp 3 credits
Math Success

Emphasizes the attributes of a successful math student by providing strategies for time-management, note-taking, problem solving, and overcoming math and test-taking anxiety. Explores learning styles and positive growth mindset. Students will develop study skills necessary to be successful in math courses.

Prerequisites: None

College and Career Preparation (CCP)

CCP 11 S,F,W,Sp 1-20 credits **Educational Interview**

Develop and monitor a personal plan of action to reach personal, educational, and workplace goals through an orientation to the college community and the College Career and Prep program, resources, and services.

Prerequisites: CASAS completion

CCP 13 S,F,W,Sp 1-20 credits **Educational Interview II**

Develop and monitor a personal plan of action to reach personal, educational, and workplace goals through an orientation to the college community and the College Career and Prep program, resources, and services.

Prerequisites: CASAS completion

CCP 15 S,F,W,Sp 1-20 credits **Educational Interview III**

Develop and monitor a personal plan of action to reach personal, educational, and workplace goals through an orientation to the college community and the College Career and Prep program, resources, and services.

Prerequisites: CASAS completion

CCP 17 S,F,W,Sp 1-20 credits **Educational Interview IV**

Develop and monitor a personal plan of action to reach personal, educational, and workplace goals through an orientation to the college community and the College Career and Prep program, resources, and services.

Prerequisites: CASAS completion

CCP 21 S,F,W,Sp 1-20 credits **I-BEST Support**

A high adult secondary education level ABE course for students who are currently working or preparing to work in a specific job area and who are enrolled in an I-BEST program. The course integrates math, reading, writing, listening and speaking skills with the linguistic requirements of the job. The content of this course varies each time it is offered. It may include English language skills for specific content areas such as certification for childcare workers, English language skills for Health Services, etc.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236 and higher or instructor permission.

CCP 23 S,F,W,Sp 1-20 credits **I-BEST Support II**

A high adult secondary education level ABE course for students who are currently working or preparing to work in a specific job area and who are enrolled in an I-BEST program. The course integrates math, reading, writing, listening and speaking skills with the linguistic requirements of the job. The content of this course varies each time it is offered. It may include English language skills for specific content areas such as certification for childcare workers, English language skills for Health Services, etc.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236 and higher or instructor permission.

CCP 25 S,F,W,Sp 1-20 credits
I-BEST Support III

A high adult secondary education level ABE course for students who are currently working or preparing to work in a specific job area and who are enrolled in an I-BEST program. The course integrates math, reading, writing, listening and speaking skills with the linguistic requirements of the job. The content of this course varies each time it is offered. It may include English language skills for specific content areas such as certification for childcare workers, English language skills for Health Services, etc.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236 and higher or instructor permission.

CCP 27 S,F,W,Sp 1-20 credits
I-BEST Support IV

A high adult secondary education level ABE course for students who are currently working or preparing to work in a specific job area and who are enrolled in an I-BEST program. The course integrates math, reading, writing, listening and speaking skills with the linguistic requirements of the job. The content of this course varies each time it is offered. It may include English language skills for specific content areas such as certification for childcare workers, English language skills for Health Services, etc.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236 and higher or instructor permission.

CCP 30 S,F,W,Sp 1-20 credits
CCP Spanish Culture and Language

Develop basic communication abilities in Spanish. Provide an opportunity for learning about other Spanish speaking cultures. Students practice both speaking and writing with classmates and Native Spanish speakers. Compares and contrasts Latin American and American cultures.

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

CCP 31 S,F,W,Sp 1-20 credits
CCP English 098

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 246 and higher

CCP 32 S,F,W,Sp 1-20 credits
CCP Math Level B

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

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

CCP 33 S,F,W,Sp 1-20 credits
CCP Lab Science

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

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

CCP 34 S,F,W,Sp 1-20 credits
CCP Civics

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

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

CCP 37 S,F,W,Sp 1-20 credits
CCP COLL 101

Explores foundational issues for success in college, including an introduction to campus resources, college culture, and digital communication skills. Develops behaviors and attitudes characteristic of successful students; develops basic reading, study, and test-taking strategies; and creates a plan for success during the next quarter and beyond. Identifies and assesses individual strengths, skills, and characteristics in order to create personal, academic, and career goals; explore and research possible career pathways to achieve goals.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236 and higher or instructor approval.

CCP 40 S,F,W,Sp 1-20 credits
CCP Electives

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

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

CCP 41 S,F,W,Sp 1-20 credits
CCP English

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

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

CCP 43 S,F,W,Sp 1-20 credits
CCP Science

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

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

CCP 44 S,F,W,Sp 1-20 credits
CCP US History

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

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

CCP 45 S,F,W,Sp 1-20 credits
CCP Washington State History

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

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

CCP 46 S,F,W,Sp 1-20 credits
CCP Current World History

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

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

CCP 47 S,F,W,Sp 1-20 credits
CCP Occupational

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

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

CCP 48 S,F,W,Sp 1-20 credits
CCP Health and PE

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

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

CCP 49 S,F,W,Sp 1-20 credits
CCP Fine Arts

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

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

CCP 51 S,F,W,Sp 1-20 credits
Contextualized Integrated Eng & Math

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high adult secondary education integrated course (integrating reading, writing, math, and technology).

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 246 and higher or instructor approval

CCP 53 S,F,W,Sp 1-20 credits
Contextualized Integrated Eng & Math II

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high adult secondary education integrated course (integrating reading, writing, math, and technology).

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 246 and higher or instructor approval

CCP 55 S,F,W,Sp 1-20 credits
Contextualized Integrated Eng & Math III

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high adult secondary education integrated course (integrating reading, writing, math, and technology).

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 246 and higher or instructor approval

CCP 57 S,F,W,Sp 1-20 credits
Contextualized Integrated Eng & Math IV

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high adult secondary education integrated course (integrating reading, writing, math, and technology).

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 246 and higher

CCP 71 S,F,W,Sp 1-20 credits
Contextualized English

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 236-245 or instructor approval

CCP 73 S,F,W,Sp 1-20 credits
Contextualized English II

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 236-245 or instructor approval

CCP 75 S,F,W,Sp 1-20 credits
Contextualized English III

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 236-245 or instructor approval

CCP 77 S,F,W,Sp 1-20 credits
Contextualized English IV

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 236-245 or instructor approval

CCP 79 S,F,W,Sp 1-20 credits
CCP Math 79/Level C

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high intermediate math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 221-235 or instructor approval

CCP 81 S,F,W,Sp 1-20 credits
Pre-College English

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 246 and higher or instructor approval

CCP 83 S,F,W,Sp 1-20 credits
Pre-College English II

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 246 and higher or instructor approval

CCP 85 S,F,W,Sp 1-20 credits
Pre-College English III

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 246 and higher or instructor approval

CCP 87 S,F,W,Sp 1-20 credits
Pre-College English IV

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 246 and higher or instructor approval

CCP 88 S,F,W,Sp 1-20 credits
CCP Math 88/Level D IV

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a low adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236-245 or instructor approval

CCP 97 S,F,W,Sp 1-20 credits
CCP Math 97/D Enhanced

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236-245 or instructor approval

CCP 98 S,F,W,Sp 1-20 credits
CCP Math 98/Level E

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 246 and higher or instructor approval

**CCPNG 61 S,F,W,Sp 1-20 credits
CCP Math Level B**

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

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 201-220

**CCPNG 63 S,F,W,Sp 1-20 credits
CCP Math Level B II**

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

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 201-220

**CCPNG 65 S,F,W,Sp 1-20 credits
CCP Math Level B III**

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

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 201-220

**CCPNG 67 S,F,W,Sp 1-20 credits
CCP Math Level B IV**

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

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 201-220

**CCPNG 71 S,F,W,Sp 1-20 credits
CCP Math 78/Level C**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high intermediate math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 221-235

**CCPNG 73 S,F,W,Sp 1-20 credits
CCP Math 78/Level C II**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high intermediate math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 221-235

**CCPNG 75 S,F,W,Sp 1-20 credits
CCP Math 78/Level C III**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high intermediate math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 221-235

**CCPNG 77 S,F,W,Sp 1-20 credits
CCP Math 78/Level C IV**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high intermediate math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 221-235

**CCPNG 81 S,F,W,Sp 1-20 credits
CCP Math 88/Level D**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a low adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236-245 or instructor approval

**CCPNG 82 S,F,W,Sp 1-20 credits
CCP Math 87/D Enhanced**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a low adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236-245

**CCPNG 83 S,F,W,Sp 1-20 credits
CCP Math 88/Level D II**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a low adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236-245 or instructor approval

**CCPNG 84 S,F,W,Sp 1-20 credits
CCP Math 87/D Enhanced II**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a low adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236-245

**CCPNG 85 S,F,W,Sp 1-20 credits
CCP Math 88/Level D III**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a low adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236-245 or instructor approval

**CCPNG 86 S,F,W,Sp 1-20 credits
CCP Math 87/D Enhanced III**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a low adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236-245

**CCPNG 87 S,F,W,Sp 1-20 credits
CCP Math 88/Level D IV**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a low adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236-245

**CCPNG 88 S,F,W,Sp 1-20 credits
CCP Math 87/D Enhanced IV**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a low adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236-245

**CCPNG 91 S,F,W,Sp 1-20 credits
CCP Math 98/Level E**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 246 and higher

**CCPNG 93 S,F,W,Sp 1-20 credits
CCP Math 98/Level E II**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 246 and higher

**CCPNG 95 S,F,W,Sp 1-20 credits
CCP Math 98/Level E III**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 246 and higher

**CCPNG 97 S,F,W,Sp 1-20 credits
CCP Math 98/Level E IV**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 246 and higher

Communication Studies (CMST)

CMST& 210 S,F,W,Sp 5 credits **Interpersonal Communication HUM**

Explores how communication develops and changes relationships. Addresses theories and principles of interpersonal communication, including perception, self concept, feedback, listening, nonverbal communication, empathy and disclosure, and handling conflict with an emphasis on skill building and improvement. Personal, family, and working contexts are considered.

Prerequisite: None

CMST& 220 S,F,W,Sp 5 credits **Public Speaking HUM, ELEC**

Examines the planning, development, and delivery of informative and persuasive speeches. Emphasis is given to effective structure and support of ideas, establishing credibility, audience analysis, language use, speaker anxiety, verbal and nonverbal presentation skills, and listening. Self-critiques are also stressed. (Formerly SPCH 110)

Prerequisite: None

CMST& 230 S,F,W,Sp 5 credits **Small Group Communication HUM**

Introduces principles and processes of small groups and development of skills for participation and leadership in small group settings. Practice in problem solving, decision making, information sharing, and the relational aspects of small group work. Includes analysis and evaluation of project-based small group work. Students will apply small group communication concepts to analyze their own work in a variety of structured discussions and activities.

Prerequisite: None.

CMST 126 F 2 credits **Competitive Public Speaking**

Provides investigation and practice in background, format, procedures and evaluation criteria of forensics events. Students must participate in a minimum of two intercollegiate tournaments.

Prerequisite: None

CMST 127 W 2 credits **Competitive Public Speaking**

Provides investigation and practice in background, format, procedures and evaluation criteria of forensics events. Students must participate in a minimum of two intercollegiate tournaments.

Prerequisite: None

CMST 128 Sp 2 credits **Competitive Public Speaking**

Provides investigation and practice in background, format, procedures and evaluation criteria of forensics events. Students must participate in a minimum of two intercollegiate tournaments.

Prerequisite: None

CMST 136 F 2 credits **Intercollegiate Debate**

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

Prerequisite: None

CMST 137 W 2 credits **Intercollegiate Debate**

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

Prerequisite: None

CMST 138 Sp 2 credits
Intercollegiate Debate

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

CMST 226 F 2 credits
Competitive Public Speaking

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

CMST 227 W 2 credits
Competitive Public Speaking

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

CMST 228 Sp 2 credits
Competitive Public Speaking

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

CMST 236 F 2 credits
Intercollegiate Debate

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

CMST 237 W 2 credits
Intercollegiate Debate

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

CMST 238 Sp 2 credits
Intercollegiate Debate

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

CMST 240 Sp 5 credits
Rhetorical Criticism & Popular Culture: DIV

Introduces methods of rhetorical criticism including neo-Aristotelian, dramatistic, Marxist, and feminist. Applies methods to popular culture artifacts (e.g., film, television, advertising, video games, and graphic novels). Themes include how popular culture influences life by defining cultural, gender, class and race roles. Students will apply the rhetorical criticism methods to identify persuasion in popular culture that influences their thoughts, beliefs, and actions.
 Prerequisite: ENGL& 101 or equivalent.

CMST 250 W 5 credits
Intercultural Communication: DIV
DIV, HUM

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

Prerequisite: None

CMST 288 **1-15 credits**
Cooperative Work Experience

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

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

CMST 299 **1-10 credits**
Independent Study

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

Prerequisite: By instructor permission only.

CMST 330 F 5 credits
Professional/Organizational Communications

Provides students a foundation in communication principles in an organizational setting, including the consideration, analysis, and criticism of the role of communication in organizational contexts. Explore various communication topics including public relations and marketing, leadership functions, dispute resolution, coaching and mentoring, global perspectives, and the role of e-communication. Students will learn the steps of a communication audit and techniques for improving organizational communication.

Prerequisite: ENGL& 101

Computer Science (CS)

CS 110	S,F,W,Sp	3 credits
Introduction	to	Microcomputer
Applications		REEL

Introduces microcomputers and software applications. Presents Windows, word processing, and electronic spreadsheets basics.

Prerequisite: Ability to use a keyboard

CS 170 F,W,Sp 5 credits
Fundamentals of Computer Programming ELEC

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

Prerequisites: MATH 88 or MATH 97 with a grade of C or better; or CCP 88 or CCP 97 with a grade of B or better; and knowledge of Windows is required; or instructor permission.

CS 175 Sp 5 credits
Event-Driven Programming UWP C# REEL

Offers an introduction to designing and implementing Windows applications using C#. Covers concepts involving event-driven programming, graphical user interface design, and algorithm implementation are covered.

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

CS 208 W 5 credits
Introduction to Management Information Systems

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

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

CS 270 F 5 credits
Data Structures I NSCI, ELEC

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

Prerequisite: CS 170 and MATH 98 (or CCP 98 with a grade of B or better), or higher, with a grade of C or better, or instructor permission.

CS 275 W 5 credits
Object-Oriented Programming REEL

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

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

CS 280 Sp 5 credits
Advanced Data Structures REEL

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

Prerequisites: CS 270 and MATH& 141 (was MATH 112), both with a grade of C or better, or instructor's permission.

CS 285 Sp 5 credits
Programming Tools REEL

Discusses programming techniques using C and C++ including debugging tools, scripting languages, UNIX programming tools, and familiarity with Unix/Linux system programming.

Prerequisite: CS 270 with a grade of C or better, or instructor permission.

CS 288 **1-15 credits**

Cooperative Work Experience

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

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

CS 299 **1-10 credits**

Independent Study

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

Prerequisites: By instructor permission only.

Criminal Justice (CJ)

CJ& 101 **F,W,Sp** **5 credits**

Introduction to Criminal Justice SOCS

Introduces and provides an overview of the various agencies involved in the administration of criminal justice, including local, state, and federal agencies as well as a history of police and corrections. Students will study how our criminal justice system evolved and how it functions, examined from the perspective of the Constitution through the criminalization process of investigation, arrest, trial, and post-trial procedures. (Formerly known as ADMJ 186)

Prerequisite: None

CJ& 105 **F** **5 credits**

Introduction to Corrections SOCS

Surveys the historical context, philosophical concepts, and major theories that have shaped corrections in the United States. Discusses sentencing options, correctional approaches and programs, the role of corrections in the larger criminal justice system, and contemporary correctional issues. Explores the effects of the corrections system on the individual, families, and society.

Prerequisite: ENGL& 101 or instructor permission

CJ& 106 **Sp** **5 credits**

Juvenile Justice

Covers the history and philosophy of juvenile justice in America and the impact of present societal and legal reforms on the juvenile justice system. Presents the various theories that support the creation, development, and continuance of juvenile justice systems, practices, and procedures in the United States.

Prerequisites: ENGL& 101 or higher, or instructor permission

CJ& 110 **F** **5 credits**

Criminal Law SOCS

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

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

CJ 104 Sp 5 credits
Introduction to Policing SOCS

Surveys and examines the role of policing in American society. Theories, philosophy and practices are covered from historical and contemporary perspectives. Identifies challenges in law enforcement including the political, social, organizational, and legal environments where the police perform their roles.

Prerequisites: None Co-requisites: None

CJ 154 W 5 credits
The American Legal System

Introduces students to the history and evolution of the federal and state constitutional basis of law, how the court systems within the United States work separately and together, and how the various components and occupations within our legal system function. Sociological reasons for the development of our legal system are also explored.

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

CJ 180 W 5 credits
Report Writing for Law Enforcement ELEC

Covers the procedures of field note-taking, crime scene recording, preliminary investigation methods for writing law enforcement reports and fundamentals of police record systems. Prepares the student to write effective and concise reports, using observation, note-taking and excellent writing skills.

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

CJ 184 W 5 credits
Administration of Justice

Introduces students to the history, evolution, components and function of criminal procedure in the United States courts, from arrest through the appeals process, and touching on victim's rights. Gives students a perspective of the complexities and intricacies of criminal procedure and punishment in light of sociological norms and change, the U.S. Constitution, state and federal statutes, rules and practice.

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

CJ 187 3 credits
Crisis Intervention for Professionals

Provides a basic multidisciplinary understanding of what a mental disorder/illness is and how to help a person experiencing a mental health crisis. De-escalation and communication techniques specific to professions such as education, medicine, and law enforcement - anyone who may encounter persons experiencing a mental health crisis - will be the focus of lecture and group discussions.

Prerequisites: None

CJ 260 Sp 5 credits
Physical Evidence and Criminalistics ELEC

Studies collection and preservation of physical evidence, scientific aids, modus operandi, and crime scene search and includes examination of physical evidence and evaluation of findings in terms of legal questions involved. Surveys problems relating to homicide, drugs, arson, and burglary.

Prerequisite: CJ 180 Report Writing for Law Enforcement

CJ 288 1-15 credits

Cooperative Work Experience

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

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

CJ 299 1-10 credits

Independent Study

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

Prerequisites: By instructor permission only.

Dance (DANCE)

DANCE 100 2 credits

Introduction to Dance HUM, PERF

Students will study concepts and practice the fundamentals of ballet, modern, and jazz dance. Students will participate in some physical exercise including a full body warm-up to begin class. Prior dance experience is not necessary. Students will learn short dance combinations involving body awareness, mental and physical discipline, balance, body toning, strength and flexibility as well as rhythmic awareness.

Prerequisite: None

DANCE 105 2 credits

Introduction to Jazz Dance HUM, PERF

Studies the concepts relevant to movement and practices the fundamentals of jazz dance. Students will learn short jazz dance combinations involving body awareness, mental and physical discipline, balance, body toning, strength, flexibility, and rhythmic awareness. Prior dance experience is not necessary.

Prerequisite: None.

DANCE 110 2 credits

Introduction to Tap Dance HUM, PERF

Introduces fundamentals of tap dance. Students will learn short dance combinations involving body awareness, mental and physical discipline, balance, strength and rhythmic awareness. Students will participate in physical exercise while dancing. Classes incorporate a full body warm-up including stretching, balance, and leg strengthening exercises providing a moderate cardio exercise. Prior dance experience is not necessary.

Prerequisite: None

DANCE 151 **1.50 credits**
Show Dance I **HUM, PERF**

Covers the fundamental techniques and principles of integrating voice, music and dance into a performance show choir. Students will sing (from memory) and perform beginner/intermediate choreography of music from a variety of styles ranging from Broadway and Jazz to Contemporary music. Ensembles perform a minimum of 1 concert per quarter, and all performances are mandatory. This course is designed for Music Majors, Dance Majors and Theatre Majors planning to transfer and complete a four-year degree in music, dance or theatre; or for those students desiring to participate in a song and dance performance choir.

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

DANCE 152 **1.50 credits**
Show Dance II **HUM, PERF**

Demonstrates the fundamental techniques and principles of integrating voice, music and dance into a performance show choir. Students will sing (from memory) and perform beginner/intermediate choreography of music from a variety of styles ranging from Broadway and Jazz to Contemporary music. Ensembles perform a minimum of 1 concert per quarter, and all performances are mandatory. This course can be taken up to 2 times. This course is designed for Music Majors, Dance Majors and Theatre Majors planning to transfer and complete a four-year degree in music, dance or theatre; or for those students desiring to participate in a song and dance performance choir.

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

DANCE 153 **1.50 credits**
Show Dance III **HUM, PERF**

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

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

DANCE 197 **1-5 credits**
Rehearsal and Performance I

Provides experience for students who participate in dance performances and performing arts productions not associated with current enrollment in a dance course. This includes dancers, choreographers, designers, technicians, and support personnel. Students must successfully complete the rehearsal process through the final performance.

Prerequisite: Instructor permission.

DANCE 251 **1.50 credits**
Show Dance IV **HUM, PERF**

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

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

DANCE 252 **1.50 credits**
Show Dance V **HUM, PERF**

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

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

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

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

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

DANCE 288 **1-15 credits**
Cooperative Work Experience

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

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

DANCE 299 **1-10 credits**
Independent Study

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

Prerequisites: By instructor permission only.

Diesel and Heavy Equipment Technology (DHET)

DHET 100 **F** **5 credits**
Essentials of Mechanics **REEL**

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

Prerequisite: None

DHET 104 W 15 credits
Electrical Systems REEL

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

Prerequisites: None

DHET 105 S,Sp 5 credits
Vehicle Climate Control REEL

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

Prerequisite: AMTC 104 or DHET 104 or Instructor Permission

DHET 114 Sp 15 credits
Heavy Duty Brakes and Chassis REEL

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

Prerequisites: None

DHET 141 F 4 credits
Hydraulics I REEL

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

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

DHET 142 F 6 credits
Hydraulics II REEL

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

Prerequisite: DHET 141 or MFG 140 or concurrent enrollment.

DHET 210 W 15 credits
Diesel Engine Rebuild REEL

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

Prerequisites: None

DHET 215 F 15 credits
Heavy Duty Engine Performance REEL

Studies factors and components that affect diesel engine performance, fuel economy, and exhaust emissions. Includes fuel system and valve train problem diagnosis, maintenance, repair, and adjustment.

Prerequisite: DHET 104 or instructor permission.

DHET 220 Sp 10 credits
Heavy Duty Power Trains REEL

Provides study of the principles of operation, maintenance, problem diagnosis, and repair of clutch systems, manual transmission, automatic transmission, power take-off, transfer cases, drive lines, differential assemblies and final drives used in trucks and heavy equipment.

Prerequisite: None

DHET 228 S,F,W,Sp 4 credits
Commercial Driving REEL

Prepares students for the Washington State Class A commercial driver's license exam.

Prerequisites: None

DHET 229 S,F,W,Sp 6 credits
Commercial Truck Driving Operation
REEL

Provides the required 120 hours of truck driving skill development to prepare students for the Washington State Class A commercial driver's license exam.

Prerequisites: DHET 228. Student must have DOT physical and pass the DOT alcohol and substance abuse test. Student must have a commercial learner's permit.

DHET 230 Sp 5 credits
Advanced Shop Practices REEL

Provides a review of key skills learned in previous Diesel program courses and will reinforce industry shop practices. Emphasis will be placed on time management and documentation. Designed as a course for Diesel AAS students.

Prerequisite: Completion of 60 DHET credits.

DHET 240 F 5 credits
Fluid Power/Electrical Theory and
Design REEL

Explores the theory and design principles of fluid power and electrical systems. Various mathematical formulas will be used to help students understand the how and why systems perform as they do. Students will be taken through the design process for a task of their choosing. This process will include force estimation and measurement, calculating component specifications and schematic drawing.

Prerequisites: Math 078/079

DHET 288 1-15 credits
Cooperative Work Experience

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

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

DHET 299 1-10 credits
Independent Study

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

Prerequisites: By instructor permission only.

Drafting (DRFT)

DRFT 107 **1-3 credits** **Technical Graphics** **REEL**

Involves students in the use of techniques and standard practices of technical graphics so that design ideas can be adequately communicated and produced. Includes free-hand sketching, use of drafting instruments, line work, lettering, orthogonal projections, pictorials, basic dimensioning, and an introduction to computer-aided design drafting.

Prerequisite: None

DRFT 151 **1-3 credits** **Introduction to Computer-Aided Drafting (CAD)** **REEL**

Introduces drafting operations as applied to computer aided drafting (CAD) and the commands and procedures used to create, edit, and plot two-dimensional CAD drawings. Drawing productivity, accuracy, and organizational techniques are emphasized in this course. Assignments will be chosen from various drafting disciplines.

Prerequisite: CS 110 or instructor permission

DRFT 210 **1-3 credits** **Advanced Technical Graphics** **REEL**

Involves students in the use of techniques and standard practices of technical graphics towards the solution of technical design problems, and to communicate and produce design ideas. Includes dimensioning and tolerancing, production of working drawings, and advanced computer-aided design drawing. This course also introduces students to electronic, piping, and welding drawings.

Prerequisite: DRFT 107 or ENGR& 121 (was ENGR 111).

DRFT 252 **1-3 credits** **3-D Computer Aided Drafting** **REEL**

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

Prerequisite: DRFT 210

DRFT 260 **3 credits** **Survey of Civil and Architectural Graphics** **REEL**

A survey course that introduces the student in the use of the drafting standards used by Civil and Architectural disciplines. The concepts of these standards will include: structural graphics, map drafting, architectural drafting, and welding and piping drafting.

Prerequisite: DRFT 107 or ENGR& 121 (was ENGR 111) or instructor permission.

DRFT 288 **1-15 credits** **Cooperative Work Experience**

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

Prerequisites: Instructor or Cooperative Education Coordinator permission

Concurrent requirements: COLL 289 or BUS 294 must be taken prior to or concurrent with this course.

DRFT 299 **1-10 credits**
Independent Study
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.
 Prerequisites: By instructor permission only.

Drama (DRMA)

DRMA& 101 **F,W,Sp** **5 credits**
Introduction to Theatre **HUM**
 Examines the nature and development of dramatic literature, theatre, and production elements. The roles of the various artists who create theater are explored, with an emphasis on interpretation and production of plays. Attendance at productions is required. This course is designed for general college students and/or theater majors, is transferable, and fulfills the requirements of the AA-DTA Humanities distribution list.
 Prerequisite: None.

DRMA 106 **5 credits**
Introduction to Acting I **HUM, PERF**
 A beginning acting course involving movement, voice production, improvisation, and scene work. Group work is used to allow each student to be comfortable in interactions with other people. Students are not required to be in the current Center Stage production. No prior acting is required. (Formerly known as DRAM 106)
 Prerequisite: None

DRMA 107 **5 credits**
Introduction to Acting II **HUM, PERF**
 A beginning acting course involving movement, voice production, improvisation, and scene work. Group work is used to allow each student to be comfortable in interactions with other people. Students are not required to be in the current Center Stage production. No prior acting is required.
 Prerequisite: None

DRMA 108 **5 credits**
Introduction to Acting III **HUM, PERF**
 A beginning acting course involving movement, voice production, improvisation, and scene work. Group work is used to allow each student to be comfortable in interactions with other people. Students are not required to be in the current Center Stage production. No prior acting is required.
 Prerequisite: None

DRMA 116 **5 credits**
Stage Crafts I
 Teaches technical areas involved in producing a play through lecture and application of skills learned in selected technical areas from design to construction to production. Practical experience is gained in sets, costumes, lights, and by serving on stage crew for the current Center Stage production.
 Prerequisite: None

DRMA 117 **5 credits**
Stage Crafts II
 Teaches technical areas involved in producing a play through lecture and application of skills learned in selected technical areas from design to construction to production. Practical experience is gained in sets, costumes, lights, and by serving on stage crew for the current Center Stage production.
 Prerequisite: None

DRMA 118 **5 credits**
Stage Crafts III

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

DRMA 119 **5 credits**
Introduction to Theatre Design and Technology

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

DRMA 147 **2 credits**
Audition Techniques

Introduces audition techniques through preparation, performance and workshops of monologues and musical theatre repertoire. Focuses on interpretation, stage presence, performance etiquette and repertoire selection. Additionally, this course will cultivate successful audition techniques and create a market audition package including, headshot, resume, and portfolio.

Prerequisite: None

DRMA 196 **1-5 credits**
Rehearsal and Performance I

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

Prerequisite: None

DRMA 197 **1-5 credits**
Rehearsal and Performance II

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

Prerequisite: None

DRMA 198 **1-5 credits**
Rehearsal and Performance III

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

Prerequisite: None

DRMA 206 **5 credits**

Acting I

Emphasizes development and application of acting concepts used in creating a role. Includes voice, physical movement, audition techniques, styles and periods of acting. Designed for the advanced acting student. Students are not required to be in the current Center Stage production.

Prerequisite: None

DRMA 207 **5 credits**

Acting II

Emphasizes development and application of acting concepts used in creating a role. Includes voice, physical movement, audition techniques, styles and periods of acting. Designed for the advanced acting student. Students are not required to be in the current Center Stage production.

Prerequisite: None

DRMA 208 **5 credits**

Acting III

Emphasizes development and application of acting concepts used in creating a role. Includes voice, physical movement, audition techniques, styles and periods of acting. Designed for the advanced acting student. Students are not required to be in the current Center Stage production.

Prerequisite: None

DRMA 210 **5 credits**

Masks

Introduces masks as a component of actor training for use on the stage and for understanding various cultures throughout the world. The mask helps develop the ability to concentrate, diminish self-consciousness, center the body, expand the body awareness, and develop outward expressions through physicalization, improvisation and scene work.

Prerequisite: None

DRMA 288 **1-15 credits**

Cooperative Work Experience

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

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

DRMA 296 **1-5 credits**

Rehearsal and Performance IV

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

Prerequisite: None

DRMA 297 **1-5 credits**

Rehearsal and Performance V

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

Prerequisite: None.

DRMA 298 **1-5 credits**

Rehearsal and Performance VI

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

Prerequisite: None

DRMA 299 **1-10 credits**
Independent Study
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.
 Prerequisites: By instructor permission only.

Early Childhood Education (ECED)

ECED& 100 **S,F,W,Sp** **3 credits**
Child Care Basics
 Covers licensing requirements for early learning lead teachers and family home child care providers, STARS 30 hour basics course recognized in the MERIT system. Topics include child growth/development, cultural responsiveness, community resources, guidance, health/safety/nutrition and professional practices.
 Prerequisites: None

ECED& 105 **S,W** **5 credits**
Introduction to Early Childhood Education
 Explores the foundations of early childhood education. Examine theories defining the field, issues, trends, best practices, and program models. Observe children, professionals and programs in action.
 Prerequisites: None Concurrent requirements: None

ECED& 107 **F,Sp** **5 credits**
Health/Safety/Nutrition **REEL**
 Introduces implementation of equitable health, safety and nutrition standards for the growing child in group care. Focus on federal Child Care Block Grant funding (CCDF) requirements, WA state licensing and Head Start Performance standards. Develop skills necessary to keep children healthy & safe, report abuse & neglect, and connect families to community resources. Students will also obtain First Aid/CPR & Bloodborne Pathogen certification.
 Prerequisites: None Concurrent requirements: None

ECED& 120 **F,W,Sp** **2 credits**
Practicum-Nurturing Relationships
 Presents the fundamentals of how to establish nurturing, supportive relationships with all children and professional peers in an early learning setting. Focus on children's health & safety, promoting growth & development, and creating a culturally responsive environment.
 Prerequisites: None Concurrent requirements: None

ECED& 132 **W** **3 credits**
Infants/Toddlers Care **REEL**
 Examine the unique developmental needs of infants and toddlers. Study the role of the caregiver, relationships with families, developmentally appropriate practices, nurturing environments for infants and toddlers, and culturally retentive care.
 Prerequisites: None Concurrent requirements: None

ECED& 134 **W** **3 credits**
Family Child Care **REEL**
 Explores how to manage a family childcare program. Topics include: licensing requirements, record-keeping, relationship building, communication strategies, guiding behavior, and promoting growth and development.
 Prerequisites: None Concurrent requirements: None

ECED& 139 **W** **3 credits**
Administration of ECE **REEL**
 Covers administrative skills required to develop, operate, manage and improve early childhood education and care programs. Discusses basic business management skills. Explores and supports for meeting Washington State licensing and professional NAEYC standards.
 Prerequisites: None Concurrent requirements: None

ECED& 160 **F** **5 credits**
Curriculum Development **REEL**
 Investigates learning theory, program planning, tools and methods for curriculum development promoting language, fine/gross motor, social-emotional, cognitive and creative skills and growth in children birth through age 8 utilizing developmentally appropriate and culturally responsive practice.
 Prerequisites: None Concurrent requirements: None

ECED& 170 **W** **3 credits**
Learning Environments **REEL**
 Focuses on the adult's role in designing, evaluating, and improving indoor and outdoor environments that ensure quality learning, nurturing experiences, and optimize the development of young children.
 Prerequisite: None Concurrent requirements: None

ECED& 180 **Sp** **3 credits**
Lang/ Literacy Develop
 Examines teaching strategies for language acquisition and literacy skill development at each developmental stage (birth-age 8) through the four interrelated areas of speaking, listening, writing, and reading.
 Prerequisites: None

ECED& 190 **F,Sp** **3 credits**
Observation/Assessment **REEL**
 Covers collecting and recording observation and assessment data in order to plan for and support the child, the family, the group, and the community. Practice reflection techniques, summarizing conclusions, and communicating findings.
 Prerequisites: None Concurrent requirements: None

ECED 116 **1 credit**
Guiding Behavior of Young Children
 Focuses on strengthening relationship-based care as an essential component of positive guidance. Participants will identify their own personal view or 'image' of the child and correlates this image with beliefs about guidance. Strategies to encourage caregivers to bond with children in their care will be introduced.
 Prerequisite: None

ECED 117 **1 credit**
Building Bridges: The Encouraging Classroom
 Focuses on using the environment to support children's positive behavior, developmentally appropriate guidance practices, guidance versus punishment, and involving families to support children's social and emotional growth.
 Prerequisite: None

ECED 118 **1 credit**
Building Bridges: Positive Guidance
 Focuses on positive communication and direct guidance techniques to support children's social/emotional development and strategies for specific challenging behaviors.
 Prerequisite: None

ECED 136 **1 credit**
Building Bridges: Infant/Toddler Social & Emotional Development
 Provides the early care and education professionals will learn about the emerging language of the young child, fostering secure caregiver-child relationships and the importance of culturally responsive partnerships with families.
 Prerequisite: None.

ECED 225 **W** **5 credits**
STEAM in Early Childhood **REEL**
 Investigates the importance of STEAM (Science, Technology, Engineering, Art, and Math) in early childhood settings and curriculum. Students will explore methods for promoting scientific discovery and learning, integrating science and technology, the elements of art, and developing mathematical concepts in an early childhood setting. Effective strategies to incorporate STEAM into curriculum and everyday activities with young children will be studied.
 Prerequisites: None

ECED 261 **F** **3 credits**
Practicum IV/Principles **REEL**
 Students will study the guiding Principles of Early Childhood Education and will have the opportunity to gradually assume the role of a lead teacher with a group of young children. Students observe and plan activities under the guidance of a mentor teacher and will also attend agency staff meetings. This course requires 11 hours of lecture and 66 hours of clinical in an approved early childhood setting.
 Prerequisites: EDUC& 115, EDUC& 130, ECED& 105, ECED& 107, ECED& 120, ECED& 190, completed with a C or better and ENGL 099 (was ENGL 100)

ECED 262 **W** **3 credits**
Practicum V/Practice **REEL**
 Students will employ the guiding Practices of Early Childhood Education and will have the opportunity to assume the role of a lead teacher with a group of young children. Students observe and plan activities under the guidance of a mentor teacher and will also attend agency staff meetings. This course requires 11 hours of lecture and 66 hours of clinical in an approved early childhood setting.
 Prerequisites: ECED 261

ECED 263 Sp 3 credits
Practicum VI/Professionalism REEL

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

Prerequisites: ECED 262

ECED 288 1-15 credits
Cooperative Work Experience

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

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

ECED 299 1-10 credits
Independent Study

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

Prerequisites: By instructor permission only.

ECED 301 W 4 credits
Practicum I REEL

Provides the first experience working in an educational setting with children and their families who are culturally, linguistically and ability diverse, under the guidance of a program-selected mentor teacher. Topics include reflective practice, developing a classroom community through an anti-bias approach, standards for professional teacher behavior as outlined by NAEYC, NAEYC Professional Code of Ethics and effective instructional strategies. Additional topics may be presented as needed. Requires 99 hours of field experience in an early care and education environment.

Prerequisites: None

ECED 302 Sp 4 credits
Practicum II REEL

Continues the field experience in an early care and education setting with children and their families who are culturally, linguistically, and ability diverse, under the guidance of a program-selected mentor teacher. Topics include school to family connections and professional relationships. Additional topics may be presented as needed. Requires 99 hours of field experience in an early care and education environment.

Prerequisites: Completion of ECED 301 with a C or better

ECED 401 F 1 credit
Reflective Practice I/ Coaching & Mentoring REEL

Provides content to support and enhance ECED 411 Student Teaching I. Explore how to build professional relationships, use professional written and oral communication, adult learning styles in early care and education settings. Additional topics may be presented as needed. Taken concurrently with ECED 411.

Prerequisites: Completion of ECED 302 with a C or better Co-requisite: ECED 411

ECED 402 W 1 credit
Reflective Practice II/ Leadership REEL

Provides content to support and enhance ECED 412 Student Teaching II. Topics include the various leadership styles, and the importance of emotional intelligence, resilience, optimism, and reflective practice in early care and education settings. Additional topics may be presented as needed. Taken concurrently with ECED 412.

Prerequisites: Completion of ECED 401 & 411 with a C or better Co-requisite: ECED 412

ECED 403 Sp 1 credit
Reflective Practice III/ Advocacy REEL

Provides content to support and enhance ECED 413 Student Teaching III. Topics include professionalism, ethical practice, understanding of current governmental and community supports for children and families, and current issues that impact children and families. Students will develop an action plan to advocate in response to identified needs. Additional topics may be presented as needed. Taken concurrently with ECED 413.

Prerequisites: Completion of ECED 402 & 412 with a C or better Co-requisite: ECED 413

ECED 411 F 5 credits
Student Teaching I REEL

Advances the experience working in an early care and education setting with children and their families who are culturally, linguistically, and ability diverse under the guidance of a program-selected mentor teacher. Emphasizes, professional collaboration and positive guidance techniques. First of three student teaching experiences for the non-certificate option. Requires 165 hours in a pre-k through 3rd grade classroom. Taken concurrently with ECED 401.

Prerequisites: Completion of ECED 302 & 312 with a C or better Co-requisite: ECED 401

ECED 412 W 5 credits
Student Teaching II REEL

Advances the student teaching experience to autonomous student teaching in an educational setting with children and their families who are culturally, linguistically, and ability diverse, under the guidance of a program-selected mentor teacher. Emphasizes child observation, documentation and assessment in an early care and education setting. Second of three student teaching experience courses for the non-certificate option. Requires 165 hours in a pre-k through 3rd grade classroom. Taken concurrently with ECED 402.

Prerequisites: Completion of ECED 401 & 411 with a C or better Co-requisite: ECED 402

ECED 413 **Sp** **5 credits**
Student Teaching III **REEL**

Culminates the student teaching experience with autonomous student teaching in an early care and education setting with children and their families who are culturally, linguistically, and ability diverse under the guidance of a program-selected teacher. Emphasizes professionalism, and issues and trends in early care and education. Third of three student teaching experience courses for the non-certificate option. Requires 165 hours in a pre-k through 3rd grade classroom. Taken concurrently with EDUC 403.

Prerequisites: Completion of ECED 402 & 412 with a C or better Co-requisite: ECED 403

ECED 439 **W** **5 credits**
Issues and Trends in Early Childhood Education **REEL**

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

Prerequisites: None

Earth Science (ERSI)

ERSI 104 **F** **5 credits**
Introduction to Earth Sciences **NSL**

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

Prerequisite: None

ERSI 105 **F,W,Sp** **5 credits**
Earth Systems **NSL**

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

Prerequisite: None

ERSI 109 **5 credits**
Energy and Our Planet: Earth Sciences **NSL**

Earth science is an explanation of the earth system and the energy that powers its subsystems. Concepts are from astronomy, meteorology, oceanography, geology, physical geography and ecology. Students will gain an understanding of the natural world and science, as well as develop skills to apply and teach how scientific principles apply to everyday life. Intended primarily for elementary education and early childhood education majors. Part of a three quarter sequence; students are not required to take entire sequence. Includes lab.

Prerequisite: None.

ERSI 288 **1-15 credits**
Cooperative Work Experience

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

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

ERSI 299 **1-10 credits**
Independent Study

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

Prerequisites: By instructor permission only.

Economics (ECON)

ECON& 201 **S,F,W,Sp** **5 credits**
Micro Economics **SOCS**

Introduces the characteristics of a market economy, focusing on price and output determination in individual product and resource markets, consumer behavior, the behavior of the firm, market structures, and comparative advantage.

Prerequisite: MATH 88 or CCP 88 or BUS 104 and ENGL& 101 or BUS 190.

ECON& 202 **F,W,Sp** **5 credits**
Macro Economics **SOCS**

Analyzes the aggregate economy focusing on: national income accounting, inflation, business cycle theory, unemployment, growth, money and banking, fiscal and monetary policies, international trade, and finance.

Prerequisite: ECON& 201 with a grade of C or better.

ECON 105 **S,F,W,Sp** **5 credits**
Introduction to Economics **SOCS**

Analyzes basic microeconomic and macroeconomic principles, focusing on the market and price system, theory of the firm, consumer behavior, inflation, unemployment, total output, money and banking, the role of government, and international trade.

Prerequisites: None.

ECON 288 **1-15 credits**
Cooperative Work Experience

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

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

ECON 299 **1-10 credits**
Independent Study

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

Prerequisites: By instructor permission only.

Education (EDUC)

EDUC& 101 **3 credits**
Paraeducator Basics **REEL**

Introduces the roles and responsibilities of the Paraeducator in the K-12 educational system. Explores techniques supporting instruction, professional and ethical practices, positive and safe learning environments, effective communication and teamwork.

Prerequisites: None
 Concurrent requirements: None

EDUC& 115 **F,W,Sp** **5 credits**
Child Development **SOCS**

Builds the foundation for explaining how children develop in all domains, conception through early adolescence. Explores various developmental theories, methods for documenting growth, and impact of brain development. Topics addressed include stress, trauma, culture, race, gender identity, socioeconomic status, family status, language, and health issues.

Prerequisites: None
 Concurrent requirements: None

EDUC& 130 **F,Sp** **3 credits**
Guiding Behavior **REEL**

Examines the principles and theories promoting social competence in young children and creating safe learning environments. Develops skills promoting effective interactions, providing positive individual guidance, and enhancing group experiences.

Prerequisite: None

EDUC& 136 **F** **3 credits**
School Age Care **REEL**

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

Prerequisites: None
 Concurrent requirements: None

EDUC 246 **F** **3 credits**
Linguistically Diverse Education REEL
 Focuses on effectively meeting the learning needs of children whose first language is not English. Explores ways to collaborate with family and other professionals to meet the needs of Multilingual learners.
 Prerequisites: None

EDUC 288 **1-15 credits**
Cooperative Work Experience
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.
 Prerequisites: Instructor or Cooperative Education Coordinator permission
 Concurrent requirements: COLL 289 or BUS 294 must be taken prior to or concurrent with this course.

EDUC 291 **W** **5 credits**
Field Experience II **REEL**
 Provides additional supervised field experience in a pre-K-12 setting, working alongside a teacher/paraeducator, observing, and demonstrating best practices. Incorporates seminar sessions and reflection to link field experiences with WA State Paraeducator Competencies including ELL and Special Education.
 Prerequisites: None

EDUC 299 **1-10 credits**
Independent Study
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.
 Prerequisites: By instructor permission only.

EDUC 300 **S,F** **5 credits**
Foundations of Teacher Education REEL
 Provides an in-depth, holistic understanding of the teacher's role and function in educational settings P-8th grade; characteristics of effective teachers; professional dispositions; reflective practice; creating successful learning environments; preparation for professional competencies and certification; Social-Emotional Learning, ACE's, Issues of Abuse, and the Field Experience process.
 Prerequisites: None

EDUC 301 **W** **4 credits**
Practicum I **REEL**
 Provides the first field experience for the certificate option in an educational setting with students and their families who are culturally and ability diverse, English Language Learners and Multilingual Learners, under the guidance of a program-selected certificated mentor teacher. Topics include identifying learning targets, reflective practice, state standards, differentiation, and effective instructional strategies. Additional topics may be presented as needed. Requires 99 hours of field experience in a pre-k through 8th grade classroom.
 Prerequisites: EDUC 300 with a C or better

EDUC 302 W 4 credits
Practicum II REEL

Continues the field experience working in an educational setting with students and families who are culturally and ability diverse, Multilingual Learners, under the guidance of a program-selected certificated mentor teacher. Topics include building and maintaining collaborative professional relationships, classroom management strategies, and instructional strategies. Requires 99 hours of field experience in a pre-k through 8th grade classroom.

Prerequisites: Completion of EDUC 301 with a C or better

EDUC 319 S,F 5 credits
Anti-Bias Education: DIV DIV, SOCS

Examines equity issues in education. Presents strategies to apply the principles of anti-bias education to instruction. Explores how embedded bias can impact identity development. Assists in deconstruction of one's biases and reflection on biases present in the communities of practice and societal systems. Examines the characteristics of culturally and linguistically relevant teachers. Provides opportunities for peer and instructor coaching to improve responsiveness to cultural and ability diversity and Multilingual Learners. Discusses culturally relevant pedagogy and its importance to the transmitting of culture from generation to generation.

Prerequisites: None

EDUC 320 F,W 5 credits
Language Arts for Teachers REEL

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

Prerequisites: None

EDUC 325 W 5 credits
Intro to Special Education

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

Prerequisites: EDUC& 115 Concurrent requirements: None

EDUC 330 Sp 5 credits
Math Methods

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

Prerequisites: College level math
Concurrent requirements: None

EDUC 335 W 5 credits
Professionalism, Collaboration & Classroom Leadership REEL

Develops skills needed to effectively collaborate with others including school personnel, community agencies, and families to support students who are culturally and ability diverse, and Multilingual learners. Covers the importance of professional development in growing and improving knowledge and skills. Consider the meaning of being a member of a community of professionals, working with others to improve schools, communities, and the teaching profession. Explore how working collectively with diverse students, families, and other stakeholders to solve persistent problems of practice in education can lead to sustainable change in education. Supervision of assistants and paraprofessionals will be addressed. Reviews and explores classroom organization, management styles and philosophies. Assists in the development of a repertoire of skills to support success for every member of the classroom.

Prerequisites: None

EDUC 340 W 1 credit
Concepts of Motor Skills REEL

Provides an overview of the pedagogical competencies which deliver developmentally appropriate physical activities to children in grades Pre-K through 8th grade. Explores the principles of exercise science and the impact on health, self-confidence and self-worth. Provides a context to teach and assess K-8 students in physical education and health, based on state standards. Includes framework-based teaching strategies effective in helping K-8 students develop a variety of motor skills and abilities, recognize the importance of a healthy lifestyle, gain knowledge of human movement, understand growth and development, and learn the rules and strategies of games and sports. Explores instructional approaches for the integration of physical education and health with other content areas.

Prerequisites: None

EDUC 345 F 5 credits
Curriculum Development & REEL
Design

Examines pedagogical approaches for teaching in educational settings. Emphasis will be given to the study of curriculum theory, design, practice, evaluation, and approaches to learning. Additional focus will be given to designing curricular experiences that are culturally responsive, equitable and that collaboratively engage students, families, and the community. Students will explore Washington State Common Core Standards and Washington State Early Learning & Developmental Guidelines.

Prerequisites: None

EDUC 350 Sp 1 credit
Creative Arts Across the
Curriculum REEL

Prepares students to integrate the visual arts across the Pre-K through 8th grade curriculum. Examines the elements of art and principles of design, art methods, lesson planning, and classroom management techniques, with particular emphasis on diverse students. Draw, paint, make prints, and create sculptures appropriate for the preschool and elementary classroom setting.

Prerequisites: None

EDUC 401 F 1 credit
Reflective Practice I REEL

Provides content to support and enhance EDUC 411 Student Teaching I. Topics include professional dispositions, understanding and using the BAS-TE lesson plan template in accordance with the BAS-TE pedagogical assessment, and reflecting on instructional practices and mentor or site supervisor feedback. Taken concurrently with EDUC 411 Student Teaching I.

Prerequisites: None Co-requisite: EDUC 411

EDUC 402 W 1 credit
Reflective Practice II REEL

Provides content to support and enhance EDUC 412 Field Experience II. Topics include professional communication, assessing instructional strategies and differentiating instruction. Taken concurrently with EDUC 412 Student Teaching II.

Prerequisites: Completion of EDUC 401 & 411 with a C or better Co-requisite: EDUC 412

EDUC 403 Sp 1 credit
Reflective Practice III REEL

Provides content to support the third of three required student teaching experience courses Residency teacher certification. Emphasizes planning, professional responsibility, leadership and collaboration.

Prerequisite: Completion of EDUC 402 & 412 with a C or better Co-requisite: EDUC 413

EDUC 410 F 4 credits
Inquiry Based Science for Teachers

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

Prerequisites: Natural Science with lab Concurrent requirements: None

EDUC 411 F 5 credits
Student Teaching I REEL

Advances the field experience working in an educational setting with students who are culturally and ability diverse and Multilingual Learners, and their families under the guidance of a program-selected certificated teacher. Emphasizes instructional strategies and professional goal setting through reflective practice. The first of three required student teaching experience courses for the certificate option. Taken concurrently with EDUC 401 Reflective Practice I.

Prerequisites: Completion of EDUC 302 with a C or better. Co-requisite: EDUC 401

EDUC 412 W 5 credits
Student Teaching II REEL

Advances the field experience to autonomous student teaching in an education setting with students and their families who are culturally, and ability diverse and Multilingual Learners and their families, under the guidance of a program selected certificated teacher. Emphasizes working as part of a team and assessing instructional effectiveness. The second of three required student teaching experience courses for the certificate option. Taken concurrently with EDUC 402 Reflective Practice II.

Prerequisites: EDUC 411 with a C or better Co-requisite: EDUC 402

EDUC 413 Sp 5 credits
Student Teaching III REEL

Culminates the field experience with autonomous student teaching in an educational setting with students who are culturally, linguistically, and ability diverse and their families under the guidance of a program-selected certificated teacher. Emphasizes planning, professional responsibility, leadership and collaboration. Taken concurrently with EDUC 403 Reflective Practice III.

Prerequisites: Completion of EDUC 402 & 412 with a C or better Co-requisite: EDUC 403

EDUC 414 W 5 credits
Guidance Techniques REEL

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

Prerequisites: None

EDUC 420 Sp 4 credits
Social Studies for Teachers REEL

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

Prerequisites: None

EDUC 429 F 5 credits
Assessment REEL

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

Prerequisites: None

EDUC 430 Sp 4 credits
Advanced Language and Literacy
REEL

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

Prerequisites: None

EDUC 439 W 5 credits
Portfolio and Professional
Assessment REEL

Focuses on culturally responsive pedagogical assessment practices. Examines the pedagogical assessment requirements, use of technology, writing requirements, logistics, and evaluation. Covers specific academic language used for submission of the pedagogical assessment tool and knowledge of on-going teacher evaluation adopted by Washington State. Explores Teacher and Principal Evaluation and Growth Program (TPEP). Candidates will prepare the first phase of their pedagogical assessment for submission.

Prerequisites: None

Engineering (ENGR)

ENGR& 121 F,W,Sp 3 credits Engineering Graphics I

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

Prerequisite: None

ENGR& 122 F,W,Sp 3 credits Engineering Graphics II

Involves students in the use of graphical techniques and practices applied towards engineering design and analysis. Includes dimensioning and tolerancing, descriptive geometry, production of working drawings, advanced computer-aided design modeling, and an introduction to parametric solid modeling. Prerequisite: ENGR& 121 (was ENGR 111) or instructor permission.

ENGR& 123 F,W,Sp 3 credits Engineering Graphics III

Involves students in the use of parametric solid modeling towards design on three-dimensional part and assembly models. Includes creating part and assembly drawings from 3D models, modifications throughout the design process, and comparing the many parametric solid modeling software packages available. Prerequisite: ENGR& 121 (was ENGR 111) and ENGR& 122 (was ENGR 112) or instructor permission.

ENGR& 204 Sp 6 credits Electrical Circuits ELEC

Provides application of fundamental electrical principles in designing engineering solutions associated with linear circuit analysis, mathematical models of electrical components and circuits; sources, resistors, capacitors, inductors, operational amplifiers, and associated simple differential equations. Prerequisites: PHYS 222, MATH& 152, or higher except MATH 246, and computer literacy.

ENGR& 214 F 5 credits Statics

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

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

ENGR& 215 W 5 credits Dynamics

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

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

ENGR& 224 Sp 5 credits
Thermodynamics

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

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

ENGR& 225 Sp 5 credits
Mechanics of Materials

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

Prerequisite: ENGR& 214 (was ENGR 122), concurrent enrollment in MATH& 152, and PHYS& 222 or instructor permission.

ENGR 106 F 5 credits
Engineering Problems NSCI

Introduces engineering and the engineering professions. Emphasizes analysis of actual engineering problems. Concepts such as measurement theory, error analysis, dimensional analysis, metric units, systems of modeling, engineering design, and principles of elementary physics are explored.

Prerequisite: C or better in MATH 098 or placement into MATH& 141

ENGR 205 F 5 credits
Design of Logic Circuits ELEC

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

Prerequisites: MATH& 141, or higher except MATH& 146 and MATH& 246

ENGR 206 W 5 credits
Microprocessor Systems ELEC

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

Prerequisites: CS 270, ENGR 205

ENGR 210 5 credits
Environmental Physics of Energy NSCI

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

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

ENGR 288 1-15 credits

Cooperative Work Experience

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

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

ENGR 299 1-10 credits

Independent Study

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

Prerequisites: By instructor permission only.

English (ENGL)

ENGL& 101 S,F,W,Sp 5 credits
English Composition I

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

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

ENGL& 102 S,F,W,Sp 5 credits

English Composition II

Part two of the composition sequence. Develops first-year college writing skills to compose claim-driven writing, including a 10-12 page researched argument essay. Emphasizes inquiry and research; synthesis and analysis; argumentation and reasoning; integration and documentation of evidence; and sentence mechanics, diction and style.

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

ENGL& 112 F 5 credits

Intro to Fiction HUM

Increases understanding and appreciation of fiction through intensive reading and analysis of short stories.

Prerequisites: Eligible for ENGL 99 or instructor consent

ENGL& 235 S,Sp 5 credits

Technical Writing HUM

Emphasizes written workplace communications designed especially for the CS, engineering, and science professions. Topics covered include document format, visual design, multi-tiered audience, formal and informal reports, instructions, letters, and memos. Prerequisite: ENGL& 101 with a grade of C or better.

ENGL& 244 5 credits

American Literature I HUM

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

Prerequisite: ENGL& 101 or instructor permission.

ENGL 104 **1-2 credits**
Accelerated Review of Grammar/ Punctuation REEL

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

Prerequisites: None

ENGL 105 **F,W,Sp** **3 credits**
Critical Reading and Writing Skills for College English

Offers instruction and intensive practice in college-level reading, writing, and critical thinking skills to succeed in English 101. Provides support in strengthening skills and strategies for academic success in transfer-level courses.

Prerequisites: None Co-requisite: ENGL& 101

ENGL 106 **F,W,Sp** **2 credits**
Northwest Voices Creative Writing Workshop HUM

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

Prerequisites: None

ENGL 108 **5 credits**
Introduction to Literature HUM

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

Prerequisite: ENGL 099 concurrent or passed.

ENGL 110 **5 credits**
Industrial Communication

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

Prerequisites: None

ENGL 140 **F** **5 credits**
Introduction to Women Writers: DIV **DIV, ELEC, HUM**

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

Prerequisite: ENGL 099 or college-level writing ability

ENGL 204 **5 credits**
The Novel **HUM**

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

Prerequisite: None

ENGL 205 **5 credits**
Film and Drama Appreciation **HUM**

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

Prerequisite: ENGL& 101 or instructor permission.

ENGL 215 **F** **5 credits**
Introduction to Film Studies **HUM**

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

Prerequisites: ENGL& 101 or instructor permission.

ENGL 221 **2-5 credits**
Teaching and Tutoring Writing I **HUM**

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

Prerequisites: ENGL& 101

ENGL 222 **4-5 credits**
Teaching and Tutoring Writing II **HUM**

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

Prerequisites: ENGL 221

ENGL 231 **5 credits**
Creative Writing **HUM**

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

Prerequisite: ENGL& 101 or instructor's permission.

ENGL 232 **5 credits**
Creative Writing **HUM**
 Engages students in writing and revising short fiction and poetry. Assignments explore the elements of stories and poems but allow students to concentrate on one form or the other. Students critique each other's work and study the published work of other writers.
 Prerequisite: ENGL 101 and 231 or consent of instructor

ENGL 233 **5 credits**
Creative Writing **HUM**
 Engages students in writing and revising short fiction and poetry. Students may choose to concentrate on stories or poems in individual projects. In class sessions, students critique each other's work and study the published work of other writers.
 Prerequisite: ENGL 101, 231, and 232 or instructor's permission

ENGL 234 **5 credits**
Creative Writing:Life Stories **HUM**
 Emphasizes the writing, constructive analysis, and revision of creative nonfiction, focusing on the personal experience. Students use journaling and respond to other exercises to develop ideas from personal experience; write, revise, and critique one another's work; and study the published work of other writers.
 Prerequisite: ENGL& 101 or instructor permission.

ENGL 245 **5 credits**
Contemporary Literature: DIV
HUM, DIV
 Explores contemporary films, drama, poetry, and fiction using analysis, interpretation, and evaluation. Field trips to view a movie or a play, or attendance at a poetry reading may be included. Essays and other written work are required.
 Prerequisite: ENGL& 101

ENGL 246 **5 credits**
Rainbow Readers: LGBTQ Literature: DIV **HUM, DIV**
 Examines some of the major concepts of modern and contemporary queer culture through close readings of writers of the 20th Century Lesbian, Gay, Bisexual, Transgender and Queer community.
 Prerequisites: ENGL& 101 or instructor permission.

ENGL 251 **5 credits**
English Literature I (Pre-1800) **HUM**
 Surveys major authors from Beowulf, Chaucer, Shakespeare, Donne, Johnson, and Milton through 18th Century authors including Swift, Pope, and Fielding. Seminar-discussion format.
 Prerequisite: ENGL& 101 or instructor permission.

ENGL 252 **5 credits**
English Literature **HUM**
 Surveys major authors from Blake and Wordsworth among other Romantic writers, Tennyson and Browning among other Victorian writers, and poets and prose writers of the 20th century, including Conrad, Yeats, Joyce, Lawrence, Eliot, Becket, and Auden. The course is operated in a seminar-discussion format.
 Prerequisite: ENGL& 101 or instructor permission.

ENGL 254 **5 credits**
Understanding Fiction and Poetry HUM
 Examines traditional and experimental fiction and poetry, presenting the short story and the poem as related literary forms. Students will gain an understanding of the elements of fiction and poetry, as well as the ways in which writers reflect or challenge prevalent societal values through literature. This experience provides an opportunity for students to demonstrate their progress in developing the knowledge, skills, attitudes and values contained in the course plan outcomes.
 Prerequisite: ENGL& 101 or instructor permission.

ENGL 255 **5 credits**
Science-Fiction Literature and Film HUM
 Examines science fiction as an important genre in literature and film. Explores historical and modern examples of science fiction, focusing on significant works in the history and development of the genre, such as H. G. Wells' The Time Machine, William Gibson's Neuromancer, and Kubrick's 2001: A Space Odyssey. Considers science fiction's power to engage with challenging social and political issues, and explores how it both inspires and is inspired by science and technology. This course meets the Humanities requirement for transfer degrees and professional/technical degrees.
 Prerequisites: ENGL& 101 or ENGL 108 or instructor permission.

ENGL 256 **5 credits**
Special Topics in Literature HUM
 Focuses on special topics or genres of literature, identified each quarter. Students learn the literary depth of a specific genre or thematic topic while gaining an understanding of the different forms of literature. This experience provides transfer students an opportunity to demonstrate their progress in developing the knowledge, skills, attitudes and values.
 Prerequisite: ENGL& 101 or instructor permission.

ENGL 260 **5 credits**
World Literature HUM
 Examines literature from a thematic approach, tracing the human struggle for intellectual identity and personal autonomy in such foundational works as Gilgamesh, the Bible, the Greek classics, and in more recent writings.
 Prerequisite: ENGL 102 or instructor permission.

ENGL 270 **F,W,Sp** **5 credits**
Literature for Children ELEC, HUM
 Offers a survey of the history of literature for children. Presents literary and visual elements useful for analyzing and selecting high quality literature as well as effective methods for engaging children with various types of texts across time and genre. Explores the challenges and importance of curating collection of literature with an emphasis on diverse representation and critical consideration of controversial issues.
 Prerequisite: None

ENGL 280 **5 credits**
Multicultural Literature: DIV HUM, DIV
 Provides students with an introduction to multicultural literature. Emphasis is placed on increasing awareness and understanding of the values, beliefs, and experiences of people from different cultures, especially those of Asia, Latin America and Africa.
 Prerequisite: ENGL& 101 with a grade of C or better or instructor permission.

ENGL 288 **1-15 credits**
Cooperative Work Experience
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.
 Prerequisites: Instructor or Cooperative Education Coordinator permission
 Concurrent requirements: COLL 289 or BUS 294 must be taken prior to or concurrent with this course.

ENGL 299 **1-10 credits**
Independent Study
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.
 Prerequisites: By instructor permission only.

ENGL 96 **S,F,W,Sp** **2 credits**
Reading Workshop I
 Provides individualized and group instruction in reading. Students will explore their strengths and weaknesses in reading and learn to draw upon strengths to overcome comprehension barriers and successfully build from written texts.
 Prerequisite: None

ENGL 97 **S,F,W,Sp** **2 credits**
Reading Workshop II
 Continues individualized and group instruction in reading. Students will explore their strengths and weaknesses in reading and learn to draw upon strengths to overcome comprehension barriers and successfully build from written texts.
 Prerequisite: None

ENGL 98 **S,F,W,Sp** **5 credits**
College-Ready English I
 Introduces skills for reading college-level texts and writing college-level papers. Provides strategies for generating, developing, supporting, and organizing ideas, as well as revising for coherence, clarity, correctness, and documentation. This is an outcomes-based pathway to college-level composition courses.
 Prerequisite: None
 Concurrent requirements: None

ENGL 99 **S,F,W,Sp** **5 credits**
College-Ready English II
 Develops and refines additional skills for reading college-level texts and writing college-level papers. Provides strategies for generating, developing, supporting, and organizing ideas, as well as revising for coherence, clarity, correctness, and documentation. This an outcomes-based pathway to college-level composition courses.
 Prerequisites: ENGL 098 with a grade of C or better. Concurrent requirements: None

English Language Learning (ELL)

ELL 11 S,F,W,Sp 1-20 credits **Educational Interview**

Develop and monitor a personal plan of action to reach personal, educational, and workplace goals through an orientation to the college community and the College Career and Prep program, resources, and services.

Prerequisites: CASAS completion

ELL 13 S,F,W,Sp 1-20 credits **Educational Interview II**

Develop and monitor a personal plan of action to reach personal, educational, and workplace goals through an orientation to the college community and the College Career and Prep program, resources, and services.

Prerequisites: CASAS completion

ELL 15 S,F,W,Sp 1-20 credits **Educational Interview III**

Develop and monitor a personal plan of action to reach personal, educational, and workplace goals through an orientation to the college community and the College Career and Prep program, resources, and services.

Prerequisites: CASAS completion

ELL 17 S,F,W,Sp 1-20 credits **Educational Interview IV**

Develop and monitor a personal plan of action to reach personal, educational, and workplace goals through an orientation to the college community and the College Career and Prep program, resources, and services.

Prerequisites: CASAS Completion

ELL 51 S,F,W,Sp 1-20 credits **ELL Integrated**

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 200 and below

ELL 53 S,F,W,Sp 1-20 credits **ELL Integrated II**

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 200 and below

ELL 55 S,F,W,Sp 1-20 credits **ELL Integrated III**

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 200 and below

ELL 57 S,F,W,Sp 1-20 credits **ELL Integrated IV**

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 200 and below

ELL 61 S,F,W,Sp 1-20 credits
ELL Reading

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 221-235 or instructor approval

ELL 63 S,F,W,Sp 1-20 credits
ELL Reading II

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 221-235 or instructor approval

ELL 65 S,F,W,Sp 1-20 credits
ELL Reading III

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 221-235 or instructor approval

ELL 67 S,F,W,Sp 1-20 credits
ELL Reading IV

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 221-235 or instructor approval

ELL 71 S,F,W,Sp 1-20 credits
ELL Writing

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 221-235 or instructor approval

ELL 73 S,F,W,Sp 1-20 credits
ELL Writing II

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 221-235

ELL 75 S,F,W,Sp 1-20 credits
ELL Writing III

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 221-235 or instructor approval

ELL 77 S,F,W,Sp 1-20 credits
ELL Writing IV

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 221-235 or instructor approval

ELL 81 S,F,W,Sp 1-20 credits
ELL Speaking and Listening

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 221-235 or instructor approval

ELL 83 S,F,W,Sp 1-20 credits
ELL Speaking and Listening II

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 221-235 or instructor approval

ELL 85 S,F,W,Sp 1-20 credits
ELL Speaking and Listening III

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 221-235 or instructor approval

ELL 87 S,F,W,Sp 1-20 credits
ELL Speaking and Listening IV

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 221-235

ELLYR 51 S,F,W,Sp 1-20 credits
ELL Integrated

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 200 and below

ELLYR 53 S,F,W,Sp 1-20 credits
ELL Integrated II

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 200 and below

ELLYR 55 S,F,W,Sp 1-20 credits
ELL Integrated III

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 200 and below

ELLYR 57 S,F,W,Sp 1-20 credits
ELL Integrated IV

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 200 and below

**ELLYR 61 S,F,W,Sp 1-20 credits
ELL Reading**

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 221-235 or instructor approval

**ELLYR 63 S,F,W,Sp 1-20 credits
ELL Reading II**

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 221-235

**ELLYR 65 S,F,W,Sp 1-20 credits
ELL Reading III**

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 221-235 or instructor approval

**ELLYR 67 S,F,W,Sp 1-20 credits
ELL Reading IV**

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 221-235 or instructor approval

**ELLYR 71 S,F,W,Sp 1-20 credits
ELL Writing**

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 221-235 or instructor approval

**ELLYR 73 S,F,W,Sp 1-20 credits
ELL Writing II**

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 221-235

**ELLYR 75 S,F,W,Sp 1-20 credits
ELL Writing III**

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 221-235

**ELLYR 77 S,F,W,Sp 1-20 credits
ELL Writing IV**

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 221-235 or instructor approval

**ELLYR 81 S,F,W,Sp 1-20 credits
ELL Speaking and Listening**

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 221-235

**ELLYR 83 S,F,W,Sp 1-20 credits
ELL Speaking and Listening II**

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 221-235

**ELLYR 85 S,F,W,Sp 1-20 credits
ELL Speaking and Listening III**

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 221-235

**ELLYR 87 S,F,W,Sp 1-20 credits
ELL Speaking and Listening IV**

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 221-235

Environmental Science (ENVS)

**ENVS& 100 F,W,Sp 5 credits
Survey of Env Science NSCI**

Introduces the interdisciplinary field of environmental science. Students analyze concepts and issues covering ecology, biodiversity, natural resources, toxicology, population, climate change, and environmental justice. Explores solutions to human impacts on Earth's systems.

Prerequisites: None

**ENVS 215 Sp 5 credits
Environmental Issues & Applications NSCI, NSL**

Examines, analyzes, and solves problems stemming from many of today's most pressing issues: natural resources, energy, toxic and hazardous compounds, and human population. Uses a case study approach to investigate these issues with an emphasis on four overlapping themes: climate change, environmental toxicology, conservation biology and restoration ecology, and sustainability. Field trips may be required. Laboratory is included.

Prerequisites: ENGL& 101 or consent of instructor.

**ENVS 288 1-15 credits
Cooperative Work Experience**

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

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

ENVS 299 **1-10 credits**
Independent Study

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

Prerequisites: By instructor permission only.

ENVS 440 **W** **5 credits**
Environmental Issues **NSCI**

An exploration of environmental issues and their effect on business, communities, and consumers. Investigate how environmental pressures (e.g., sustainable development) and environmental problems (e.g., global warming, air pollution, waste disposal) impact corporate mission, competitive strategy, technological choices, product development decisions, production processes, and corporate responsibility. Examine basic concepts of ecology and environmental science as they relate to permitting and other business decisions. Regulation and permitting pertaining to SEPA, NEPA, the Army Corps, archaeology, and hydraulics will be studied from the perspective of local planning departments. Case studies and student investigations will be used to build technical proficiencies.

Prerequisite: Any five-credit course with a lab from the Natural Science distribution list.

Geography (GEOG)

GEOG 105 **F,W** **5 credits**
Physical Geography **NSL**

Examines the physical factors controlling the global distribution of life on Earth. Major topics include Earth-Sun relationships, biomes, weather, physical landforms, hydrology, climate, and the oceans. Lab exercises involve making and analyzing various types of maps, performing measurements, recording observations, analyzing data using basic math, and writing reports. A field trip to a local geologic site may be required.

Prerequisite: None

GEOG 297 **F** **5 credits**
Special Topics in Geography **NSL, NSCI**

Examines the geography of a specific region of Earth's surface.

Prerequisite: GEOG 105

Geology (GEOL)

GEOL& 101 **F,W** **5 credits**
Intro Physical Geology **NSL**

Examines the physical Earth with focus on plate tectonics and its influence on the rock cycle, earthquakes, volcanoes, and environmental changes over deep geologic time. Laboratory exercises include rock and mineral identification, interpretation of maps and other geologic data, performing measurements, recording observations, analyzing data using basic math, and writing reports. A field trip to a local geologic site may be required.

Prerequisite: None

GEOL& 208 F,W,Sp 5 credits
Geology of Pacific Northwest NSL

Examines the Geology of the Pacific Northwest with a focus on the influence of plate tectonics on earthquakes, volcanoes, mountain building, the rock cycle, and environmental changes within the context of deep geologic time. Laboratory exercises include rock and mineral identification, interpretation of maps and other geologic data, performing measurements, recording observations, analyzing data using basic math, and writing reports. A field trip to a local geologic site may be required.

Prerequisite: None

GEOL 105 5 credits
Geology: Earth Revealed NSL

Offers a comprehensive one-term study of the Earth's physical properties and processes. Major topics are rocks and minerals, weathering, erosion, deserts, coasts, ground water, plate tectonics, volcanoes, earthquakes, mountain building, and geologic hazards. Laboratory work, to be completed at home, includes identification of minerals and rocks and map interpretation. This telecourse is recommended only for the strongly self-motivated student. It is not intended for geology majors.

Prerequisite: None

GEOL 118 Sp 5 credits
Historical Geology NSL

Examines the physical and biological evolution of Earth as determined by evidence preserved in rocks. Major topics include geologic time, the rock cycle, long-term environmental changes, the driving force of plate tectonics, and the timeline of geologic discovery. Laboratory exercises include rock and mineral identification, interpretation of maps and other geologic data, performing measurements, recording observations, analyzing data using basic math, and writing reports. A field trip to a local geologic site may be required.

Prerequisite: None

GEOL 124 1 credit
Geology Fieldtrip: Columbia River Gorge NSCI

Primarily explores the geology in the Columbia River Gorge between The Dalles, Oregon and Vancouver, Washington. Provides students with the opportunity to observe, and make hypotheses about, the processes that shape our planet and that affect humans, salmon, and other organisms.

Prerequisites: None

GEOL 288 1-17 credits
Cooperative Work Experience

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

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

GEOL 297 **F** **5 credits**
Special Topics in Geology **NSCI, NSL**
 Examines geologic concepts with respect to a specific region of Earth's surface.
 Prerequisite: GEOL& 101

GEOL 299 **1-10 credits**
Independent Study
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.
 Prerequisite: By Instructor Permission only.

Health (HLTH)

HLTH 100 **S,F,W,Sp** **3 credits**
Occupational Safety and Health **REEL**
 Introduces fundamental concepts and practices related to safety and hygiene in the work place, including bloodborne and airborne pathogens, and HIV/AIDS awareness and risk reducing behaviors, including for those who are chemically dependent. American Heart Association First Aid/Basic Life Support(BLS) for Healthcare Provider training is included. Students are issued AHA First Aid/BLS Health Care Provider cards upon completion.
 Prerequisite: None

HLTH 105 **S,F,W,Sp** **1 credit**
First Aid, CPR and Bloodborne Pathogens **REEL**
 Instructs students in First Aid and adult, child and infant CPR through the American heart Association for healthcare providers including AED training. Students will receive first aid and CPR certification with completion of this course. This course will also cover bloodborne pathogen training, which students will also receive certification in with the completion of the course.
 Prerequisite: None

HLTH 106 **F,W,Sp** **2 credits**
Health and Wellness **ELEC**
 Analyzes a vast array of information on the dangers of risky health behaviors and the benefits of healthy decisions as it affects one's life. Emphasis will be on personal decision-making and positive behavioral changes toward the goal of wellness as a lifestyle.
 Prerequisite: None

HLTH 110 **2 credits**
Personal Health **REEL**
 Discusses a wide variety of major health topics. Students will look at the health topics from a personal perspective and will identify ways to enhance their own personal health and wellness. Topics may include but are not limited to: nutrition, fitness, cancer, cardiovascular disease, drugs, alcohol, tobacco, stress, relationships, psychological health, environmental health, pregnancy and childbirth, and weight management.
 Prerequisite: None

HLTH 135 **2 credits**
Food and Fitness **ELEC**

Explores two components of a healthy lifestyle; nutrition and exercise. Introduces basic concepts of nutrition and healthy dietary choices. Provides information necessary for developing a safe, well-rounded exercise program.

Prerequisites: None

HLTH 245 **W** **3 credits**
Health and Exercise Behavior **ELEC**
Change

Explores the relationship between exercise, physical health and mental health. Covers exercise and mood, personality traits, nutrition behavior, and group dynamics. Includes application of practical skills related to working with others to promote exercise adherence and health and exercise intervention.

Prerequisites: None

HLTH 288 **1-15 credits**
Cooperative Work Experience

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

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

HLTH 299 **1-10 credits**
Independent Study

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

Prerequisites: By instructor permission only.

History (HIST)

HIST& 126 **F** **5 credits**
World Civilizations I: DIV
HUM, ELEC, DIV

Focuses on the origins, development, and features of various societies in the ancient and classical world, including the peoples of Asia, Africa, Europe, the Americas, and Oceania. This course examines the political, social, and cultural contours of particular societies and the interactions and relationships among people of different historical cultures.

Prerequisite: None.

HIST& 127 **W** **5 credits**
World Civilizations II: DIV
SOCS, DIV, ELEC

Examines the dramatic changes in world history in the pre-modern and early modern period (1500-1800), a time of profound and unprecedented transformations in many societies around the world. Historical topics include: the development of new economic systems such as mercantile capitalism; large-scale interactions such as the Columbian exchange; scientific, philosophical, and political revolutions; and new global relationships such as colonialism. Attention will be paid to the increasing interdependence of Asia, Africa, Europe, the Americas, and Oceania.

Prerequisite: None

HIST& 128 **S,Sp** **5 credits**
World Civilizations III: DIV **ELEC,**
SOCS, **DIV**

Examines the ways people have shaped and reacted to the issues of the modern world, such as 1) the emergence of global economic systems and their political, social and cultural effects; 2) the role of warfare, empire, power relations, and revolution in shaping international events; and 3) the interactions and reactions when cultural values, ideas, and technologies of many societies are in sustained contact. Attention will be paid to the sustained interdependence of Asia, Africa, Europe, the Americas, and Oceania.

Prerequisite: None.

HIST& 136 **S,F,W,Sp** **5 credits**
US History I **SOCS**

Focuses on the causes and effects of social, cultural, political, intellectual and economic change. Attention will also be given to the events outside North America that contributed to the emergence of the United States.

Prerequisite: None

HIST& 137 **S,F,W,Sp** **5 credits**
US History II **SOCS**

Focuses on the causes and effects of social, cultural, political, intellectual and economic change, from Reconstruction to the present. Attention will also be given to the events (e.g., immigration) outside North America that contributed to the emergence of the U.S. as well as the effects (e.g., imperialism) of its emergence on the rest of the world.

Prerequisite: None

HIST& 215 **5 credits**
Women in U.S. History: DIV **SOCS, DIV**

Focuses on the history of American women from pre-European settlement to the present. Lectures, readings, and assessments emphasize how female roles in family, work, politics, and culture have changed over time, creating new definitions of womanhood. Emphasizes the diversity among women in terms of race, ethnicity, class, and sexuality.

Prerequisite: None

HIST 205 **Sp** **5 credits**
History of East Asia: DIV
ELEC, **SOCS,** **DIV**

Explores the past two hundred years of East Asia history, paying particular attention to China and Japan. It examines a number of topics: 1) the political, economic, and cultural changes and continuities within East Asian societies, 2) the interrelations among these countries, and 3) their interactions with the world outside their region.

Prerequisite: None

HIST 214 **5 credits**
Sports in American History **ELEC,**
SOCS

Examines the American sporting experience from the colonial period through the 21st century. Focuses on the rise of organized sports institutions and how race, class, gender, ethnicity, and religion have shaped the relationship between sport and society. Students will learn about the histories of various sports, the athlete and spectator experience, consumerism and celebrity culture.

Prerequisite: None

HIST 237 **W** **5 credits**
History of Australia and New Zealand **SOCS, ELEC**

Examines the history of the Australasian nations of Australia and New Zealand from the first human inhabitation of Australia some 60,000 years ago and the Maori settlement of New Zealand some 900 years ago through the long and often difficult processes of becoming the modern island nations of Australia and New Zealand. Gives attention to the various groups who have migrated to Australasia, the European exploration and colonization of the area, the development of settlements and colonial governments, the move to nationhood in the late 19th century, and the emergence of the modern nations of Australia and New Zealand in the 20th century.

Prerequisites: Enrollment in Study Abroad Program and eligible for ENGL& 101 OR instructor permission.

HIST 254 **5 credits**
History of Washington and the Pacific Northwest **SOCS, ELEC**

Provides a social, political, economic history of the Pacific Northwest with particular emphasis on the State of Washington, including Native American history and gender/ethnic history. Course meets the Washington State History requirement for teacher certification.

Prerequisite: When taught as capstone - capstone prerequisites: when not taught as capstone - no prerequisites.

HIST 288 **1-15 credits**
Cooperative Work Experience

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

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

HIST 299 **1-10 credits**
Independent Study

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

Prerequisites: By instructor permission only.

Human Development (HDEV)

HDEV 100 **S,F,W,Sp** **1 credit**
New Student Orientation **REEL**

Helps students gain in-depth knowledge of the enrollment process, student rights and responsibilities, and college policies and procedures. Emphasizes activities and services available in Career and Employment Services, Computer Labs, the Learning Center, Financial Aid, and the LCC Library. Students will be required to attend two student success series workshops.

Prerequisite: None

HDEV 101 F,W,Sp 1-3 credits**Career Exploration and Planning REEL**

Uses student assessments and activities to decide aptitude and ability in combination with personality traits and personal goals to match students with potential careers. Students will explore careers, develop career goals, and map out educational plans to meet career goals.

Prerequisite: None

HDEV 106 1-2 credits**Activities/Events Programming REEL**

Involves students in development and implementation of variety of co-curricular activities. Students learn to organize educational, cultural, social, and recreational programs for campus community, as well as budget development, committee participation, and cooperative programming with campus and community organizations. Students enrolled for one credit either serve on the ASLCC Programming Board as a program director or some combination of programming committee(s) and or special projects assignment(s). Additional credit is available for additional committee or project responsibilities. This course is offered on a pass/fail basis.

Prerequisite: None

HDEV 107 1-2 credits**Activities/Events Programming REEL**

Involves students in development and implementation of variety of co-curricular activities. Students learn to organize educational, cultural, social, and recreational programs for campus community, as well as budget development, committee participation, and cooperative programming with campus and community organizations. Students enrolled for one credit either serve on the ASLCC Programming Board as a program director or some combination of programming committee(s) and or special projects assignment(s). Additional credit is available for additional committee or project responsibilities. This course is offered on a pass/fail basis.

Prerequisite: None

HDEV 108 1-2 credits**Activities/Events Programming REEL**

Involves students in development and implementation of variety of co-curricular activities. Students learn to organize educational, cultural, social, and recreational programs for campus community, as well as budget development, committee participation, and cooperative programming with campus and community organizations. Students enrolled for one credit either serve on the ASLCC Programming Board as a program director or some combination of programming committee(s) and or special projects assignment(s). Additional credit is available for additional committee or project responsibilities. This course is offered on a pass/fail basis.

Prerequisite: None

HDEV 110 **1-3 credits**
Job Finding Skills **REEL**

Provides effective job search techniques, including identification of transferable skills, job applications, job readiness, and creative job search. Students should be ready to conduct an active job search.

Prerequisite: None

HDEV 115 **2 credits**
Stress Management **REEL**

Focuses on developing effective life coping skills as related to interpersonal, work, family, and academic stressors. Students examine their beliefs, emotions, and self-defeating behaviors.

Prerequisite: None

HDEV 116 **1-3 credits**
Leadership and Student Government **REEL**

Offers experience in elections, meeting procedure, college and ASLCC committees, planning and conducting governance activities, planning and managing budgets, deliberating issues and setting goals for student welfare, and effective leadership responsibilities. Students enrolled in this class are voting members of the Executive Council of the ASLCC.

Prerequisite: Instructor permission

HDEV 117 **1-3 credits**
Leadership and Student Government **REEL**

Offers experience in elections, meeting procedure, college and ASLCC committees, planning and conducting governance activities, planning and managing budgets, deliberating issues and setting goals for student welfare, and effective leadership responsibilities. Students enrolled in this class are voting members of the Executive Council of the ASLCC.

Prerequisite: Instructor permission

HDEV 118 **1-3 credits**
Leadership and Student Government **REEL**

Offers experience in elections, meeting procedure, college and ASLCC committees, planning and conducting governance activities, planning and managing budgets, deliberating issues and setting goals for student welfare, and effective leadership responsibilities. Students enrolled in this class are voting members of the Executive Council of the ASLCC.

Prerequisite: Instructor permission

HDEV 120 **S,F,W,Sp** **1 credit**
Individual and Group Relations **REEL**

Extends to students opportunities in transfer information, goal setting, and other areas related to behavior change. Course may be repeated up to six times for a total of 6 credits.

Prerequisite: None

HDEV 125 **2 credits**
Assertiveness Training **REEL**

Examines interpersonal dynamics of relationships and personality. Students explore fears and anxieties connected to their interpersonal conflicts, as well as the impact of their personality on communication and behavior.

Prerequisite: None

HDEV 127 **1-3 credits**
Student Support Services **REEL**

This variable 1 - 3 credit course is designed to increase the retention, graduation, and transfer rate of first generation, low-income, and students with disabilities who are enrolled as Student Support Services participants. This course will expose students to strategies and activities designed to enhance a student's ability to learn, develop educational perspective, and improve academic performance. Emphasis on each student's Individualized Academic Plan and personal needs will determine the class content.

Prerequisite: None

HDEV 128 **1 credit**
Transfer Planning **REEL**

Facilitates the transfer process and increases the transfer rate of students who are first-generation, low-income, and/or DSS eligible, and who are enrolled as TRiO Student Support services participants. Exposes students to strategies and activities relevant to the process of choosing, applying, and enrolling as a transfer student at a 4-year institution. Emphasis on each student's long-range academic and career plan will determine the class content. This is a stand alone course that can be repeated for up to 3 credits. Tuition waived via TRiO-SSS Grant.

Prerequisites: None

HDEV 145 **2 credits**
Anger Management **REEL**

Encourages students to examine irrational beliefs and self-defeating behaviors. Focus is on covert and overt behaviors contributing to the power held by our "intimate enemies."

Prerequisite: None

HDEV 150 **1-3 credits**
Psychology of Humor **REEL**

Engages students in laughter and play. Focuses on biological and psychological effects of humor. Designed to help students develop health-conscious environment, manage pain, cope with emotional issues, and reduce stress. Pass/Fail grade.

Prerequisite: None

HDEV 165 **2 credits**
Lead:Leadership Exploration and Development **REEL**

Develops leadership skills and abilities. Introduces philosophical, theoretical, and practical elements of leadership. Increases self-awareness of personality type, communication skills, and learning styles. Explores leadership styles, skills, qualities and situations. Develops self-reliance, conflict resolution strategies, and team building skills. Addresses transferability of skills from real-life settings (such as the athletic field or court) to the learning environment and work place. Open only to student athletes.

Prerequisites: Instructor permission.

HDEV 206 1-2 credits**Activities/Events Programming REEL**

Involves students in development and implementation of variety of co-curricular activities. Students learn to organize educational, cultural, social, and recreational programs for campus community, as well as budget development, committee participation, and cooperative programming with campus and community organizations. Students enrolled for one credit either serve on the ASLCC Programming Board as a program director or some combination of programming committee(s) and or special projects assignment(s). Additional credit is available for additional committee or project responsibilities. This course is offered on a pass/fail basis.

Prerequisite: None

HDEV 207 1-2 credits**Activities/Events Programming REEL**

Involves students in development and implementation of variety of co-curricular activities. Students learn to organize educational, cultural, social, and recreational programs for campus community, as well as budget development, committee participation, and cooperative programming with campus and community organizations. Students enrolled for one credit either serve on the ASLCC Programming Board as a program director or some combination of programming committee(s) and or special projects assignment(s). Additional credit is available for additional committee or project responsibilities. This course is offered on a pass/fail basis.

Prerequisite: None

HDEV 208 1-2 credits**Activities/Events Programming REEL**

Involves students in development and implementation of variety of co-curricular activities. Students learn to organize educational, cultural, social, and recreational programs for campus community, as well as budget development, committee participation, and cooperative programming with campus and community organizations. Students enrolled for one credit either serve on the ASLCC Programming Board as a program director or some combination of programming committee(s) and or special projects assignment(s). Additional credit is available for additional committee or project responsibilities. This course is offered on a pass/fail basis.

Prerequisite: None

HDEV 216 1-3 credits**Leadership and Student Government REEL**

Offers experience in elections, meeting procedure, college and ASLCC committees, planning and conducting governance activities, planning and managing budgets, deliberating issues and setting goals for student welfare, and effective leadership responsibilities. Students enrolled in this class are voting members of the Executive Council of the ASLCC.

Prerequisite: Instructor permission

HDEV 217 **1-3 credits**
Leadership and Student Government
REEL

Enhances students' ability to become effectual leaders in educational or work environment through situational leadership, teamwork, motivational techniques, ethical decision-making, budgeting, and various seminars. Students will represent student constituency through governmental process.

Prerequisite: Instructor permission

HDEV 218 **1-3 credits**
Leadership and Student Government
REEL

Enhances students' ability to become effectual leaders in educational or work environment through situational leadership, teamwork, motivational techniques, ethical decision-making, budgeting, and various seminars. Students will represent student constituency through governmental process.

Prerequisite: Instructor permission

HDEV 221 **2 credits**
Peer Mentoring I **REEL**

Introduces Peer Mentoring principles to Student Support services Peer Mentors to increase the retention, graduation, and transfer rate of first-generation, low-income, and students with disabilities who are enrolled as Student Support Services first-year participants. Exposes Student Support Services Peer Mentors to strategies and activities designed to enhance first-year students' abilities to learn, develop educational perspective, and improve academic performance. Topics include leadership, communication, conflict resolution, stress management, and various other mentoring skillsets. Maximum number of credits possible: 2. Tuition waived.

Prerequisites: Students must be chosen to be Student Support Services Peer Mentors to enroll in the course.

HDEV 222 **2 credits**
Peer Mentoring II **REEL**

Provides additional instruction for Peer Mentoring principles to Student Support services Peer Mentors to increase the retention, graduation, and transfer rate of first-generation, low-income, and students with disabilities who are enrolled as Student Support Services first-year participants. Exposes Student Support Services Peer Mentors to strategies and activities designed to enhance first-year students' abilities to learn, develop educational perspective, and improve academic performance. Topics include leadership, communication, conflict resolution, stress management, and various other mentoring skillsets. Maximum number of credits possible: 2. Tuition waived.

Prerequisites: HDEV 221 or instructor permission.

HDEV 223 **1 credit**
Peer Mentoring III REEL

Concludes training for Peer Mentoring principles to Student Support services Peer Mentors to increase the retention, graduation, and transfer rate of first-generation, low-income, and students with disabilities who are enrolled as Student Support Services first-year participants. Exposes Student Support Services Peer Mentors to strategies and activities designed to enhance first-year students' abilities to learn, develop educational perspective, and improve academic performance. Topics include leadership, communication, conflict resolution, stress management, and various other mentoring skillsets. Maximum number of credits possible: 2. Tuition waived.

Prerequisites: HDEV 222 or instructor permission.

HDEV 288 **1-15 credits**
Cooperative Work Experience

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

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

HDEV 299 **1-10 credits**
Independent Study

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

Prerequisites: By instructor permission only.

HDEV 75 **2 credits**
Journeys-A Workshop for Women

Targets women in life transitions - divorce, empty nest, job loss, etc., and provides them with tools to understand the challenges involved in change and new beginnings. Explores the process of transition, models of adapting to change, self awareness, and self assessment. Participants will explore educational and career options, with a focus on non-traditional careers that offer high-wage, high-demand opportunities, and develop a personal Success Plan. Meets for seven weeks and is graded on a pass/fail basis. Prerequisite: None

HDEV 80 **2-7 credits**
Transitions

Explores and develops the coping skills, attitudes, and behaviors needed to deal with job loss or underemployment and move forward with career and life planning. Main topics include dealing with job loss, assessing interests and skills, career exploration, goal setting, and job finding skills. Additional topics may include specialized skill assessment, financial management, utilizing community resources, advanced interview preparation, computerized job search. Skill building in reading, writing, math, and computers may also be integrated with these studies.

Prerequisite: None

HDEV 90 **2 credits**

Success By Your Design

Explores the connection between their thoughts and behaviors. Students will apply concepts in this interactive course to cultivate "Thought patterns for a Successful Career." Through self-reflection and discussion, students will examine thought processes and how to control them, as well as understand how the mind works to create beliefs, habits, and attitudes, thus re-calibrating them for success.

Prerequisite: None.

Humanities (HUM)

HUM& 116 **F** **5 credits**
Humanities I **HUM**

Survey of major movements in philosophy, art, music, architecture, and literature from prehistory to 1300 C.E. Students will explore, analyze, and discuss the era's masterpieces from around the world as well as the historical and cultural influences of the birth of civilization in the Near and Far East, the Classical Eras of Greece, Rome, and China, and the rise of Buddhism, Christianity, and Islam upon such works and the masters who created them.

Prerequisite: None

HUM& 117 **S,W** **5 credits**

Humanities II **HUM**

Survey of major movements in philosophy, art, music, architecture, and literature from 1300 to 1800 C.E. Students will explore, analyze, and discuss the era's masterpieces from around the world as well as the historical and cultural influences of the Renaissance, the baroque period, the Reformation, the Enlightenment, the Scientific Revolution, and cross-cultural encounters upon such works and the masters who created them.

Prerequisite: None

HUM& 118 **Sp** **5 credits**
Humanities III **HUM**

Survey of major movements in philosophy, art, music, architecture, and literature from 1800 C.E. to the present. Students will explore, analyze, and discuss the era's masterpieces from around the world as well as the historical and cultural influences of the Romantic Era, colonialism, Freudian theory, World Wars I and II, totalitarianism, postmodernism, and the Information Age upon such works and the masters who created them.

Prerequisite: None

HUM 104 **S,W** **5 credits**
Ethics and Cultural Values:
DIV **HUM, DIV**

Explores and analyzes moral issues from various perspectives and examines elements of virtue, duty, obligation, and rights from various classical, traditional, and contemporary systems as presented in Western, Hindu, Buddhist, Confucian, Islamic, and/or African writings, films, literature, and/or practices.

Prerequisite: None

HUM 106 F,W,Sp 1 credit
Community Conversations ELEC

A weekly presentation/discussion series addressing contemporary issues in American life. The areas and issues contemplated include politics, the family, religion, the environment, health care, the economy and other important issues.

Prerequisites: None

HUM 107 F,W,Sp 1 credit
How to See a Play HUM, ELEC

Read play produced by LCC Center Stage and attend performance. After performance, actors, director, and designers participate in talkback session, answering questions prepared by students regarding play, production, and various elements required for a play presentation. Talkback includes social, political, philosophical and psychological components of the play and actor interpretation of the role(s) played.

Prerequisite: None

HUM 120 S,F,Sp 5 credits
Regional Life and Culture HUM

Explores the concept of "place," local and global, in culture, story, history, and personal geography. Encourages the development of individual perspectives regarding being inside or outside one's "place" or culture and the knowledge of a self as a global citizen. Intended primarily for international and study abroad students.

Prerequisites: Enrollment in Study Abroad Program OR instructor permission.

HUM 124 F 1-3 credits
Arts Magazine Publication I ELEC, HUM

Instructs and guides students through the first stage in an annual publication process for creating and editing The Salal Review (Lower Columbia College's literary and visual arts magazine). Students in this stage of the publication process work primarily with literary art submissions: marketing for, collecting, critiquing, selecting, editing, and creating a design plan for various forms of poetry and prose to be displayed in the annual printed and digital magazine. Students may repeat HUM 124 for a maximum of two quarters, not to exceed 6 credits total. Credit hour enrollment determines student workload for the publication process.

Prerequisites: None

HUM 125 W 1-3 credits
Arts Magazine Publication II ELEC, HUM

Instructs and guides students through the second stage in an annual publication process for creating and editing The Salal Review (Lower Columbia College's literary and visual arts magazine). Students in this stage of the publication process work primarily with visual art submissions: marketing for, collecting, critiquing, selecting, editing, and creating a design plan for various forms of visual art to be displayed in the annual printed and digital magazine alongside previously selected literary art submissions. Students may repeat HUM 125 for a maximum of two quarters, not to exceed 6 credits total. Credit hour enrollment determines student workload for the publication process.

Prerequisites: None

HUM 126 Sp 1-3 credits
Arts Magazine Publication III
ELEC, HUM

Instructs and guides students through the third and final stage in an annual publication process for creating and editing The Salal Review (Lower Columbia College's literary and visual arts magazine). Students in this stage of the publication process work primarily with multimedia art submissions (not suitable for print): marketing for, collecting, critiquing, and creating a design plan for various forms of multimedia art to be displayed in the annual digital magazine. Students will also finalize the print and digital publication process for the year and host a publication launch party for the campus and community. Students may repeat HUM 126 for a maximum of two quarters, not to exceed 6 credits total. Credit hour enrollment determines student workload for the publication process.

Prerequisites: None

HUM 131 F 5 credits
Introduction to World Religions:
DIV HUM, DIV

Explores the major religions of the world including Judaism, Christianity, Islam, Hinduism, Buddhism, Jainism, Shintoism, Sikhism, Confucianism, and Daoism.

Prerequisites: None

HUM 150 F,W,Sp 1 credit
Ethics and Policy in Healthcare I HUM

Introduces ethical and legal principles governing healthcare with a focus on nursing practice. Discusses historic milestones in nursing. First in a series of three courses on ethics and policy in healthcare. Restricted to students admitted to the nursing program.

Prerequisites: Admission to the nursing program. Co-requisites: NURS 151 or Nursing Program Director permission. Prerequisites: Admission to the nursing program Concurrent requirements: NURS 151 or Nursing Program Director permission

HUM 164 Sp 5 credits
Cultural Journeys: DIV DIV, HUM

Explores the rich cultural heritage of different nationalities, ethnic groups and regions as expressed through a people's music, literature, film, art and critical writing. Quarterly offerings will focus on different cultural groups and their attempts to develop a rich and complex understanding of human existence.

Prerequisites: None

HUM 210 S,F,W,Sp 5 credits
Myth and Rites: DIV DIV, HUM

Defines and explores examples of creation, flood, and resurrection myths as well as diverse examples of initiation, celebration, religious, and political rites from around the world and across time. The significance of such myths and rites are also explored through the analysis of works of drama, literature, and film.

Prerequisite: ENGL& 101

HUM 230 W 5 credits
Thinking About Thinking HUM

Examines and explores the role of critical thinking and analysis in evaluating written material to include literature, non-fiction prose, and media sources. Applies various models from formal logic and literary criticism to discover both the explicit and implicit meaning of fiction, non-fiction prose and media sources. Prerequisites: ENGL& 101 (was ENGL 101) or instructor permission.

HUM 250 F,W,Sp 2 credits
Ethics and Policy in Healthcare II HUM

Presents organizational structures, legal considerations, policies, procedures and ethical principles/theories related to healthcare. Second course in a series of three courses. Restricted to students admitted to the nursing program. Prerequisites: HUM 150 with a grade of 'C' or higher. Co-requisites: NURS 152 or Nursing Program Director permission. Concurrent requirements: NURS 152 or Nursing Program Director permission

HUM 251 F,W,Sp 2 credits
Ethics and Policy in Healthcare III HUM

Presents research, leadership, workplace issues and ethical dilemmas in healthcare with an emphasis on nursing. Final course in a series of three courses. Restricted to students admitted to the nursing program. Prerequisites: HUM 250 or 3 credits HUM 255 with a grade of 'C' or higher. Co-requisites: NURS 253 or Nursing Program Director permission. Co-requisites: NURS 253 or Nursing Program Director permission

HUM 255 F 5 credits
Ethics and Policy in Healthcare HUM

Introduces ethical and legal principles governing healthcare with a focus on nursing practice. Discusses historic milestones in nursing. Presents organizational structures, legal considerations, policies, procedures and ethical principles/theories related to healthcare. Builds upon previous concepts in research, leadership, workplace issues and ethical dilemmas in healthcare with an emphasis on nursing. Fulfills distribution requirement for AN-DTA only. Restricted to students admitted to the nursing program. Prerequisite: Admission to the Nursing program.

HUM 288 1-15 credits
Cooperative Work Experience

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

HUM 299 1-10 credits
Independent Study

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

HUM 315 **F** **5 credits**
Ethics **HUM**

Provides students a foundation in ethics as applied to businesses and organizations with a focus on ethics related to management issues. Examine the role of ethics and social responsibility in the management of public and private sector organizations and businesses. Explore theoretical concepts in business ethics and apply them to real-world situations based on challenges managers face. Understanding several actual publicized local ethical lapses and the consequences on the affected organization will be utilized as an integral component of this course. An emphasis on contemporary trends in corporate responsibilities with respect to ethical, legal, economic, and regulatory conditions in the global marketplace will be included.

Prerequisite: Any five-credit humanities course from the distribution list

Information Technology (IT)

IT 100 **S,F,W,Sp** **5 credits**
IT Fundamentals **ELEC**

Develops the knowledge to identify and explain basic computer components, set up a basic workstation, conduct basic software installation, establish basic network connectivity, identify compatibility issues and identify/prevent basic security risks. This course will also focus on the areas of safety and preventative maintenance of computers and is intended for students who are considering a career in IT and later considering the pursuit of a Comptia A+ or similar certification.

Prerequisite: BUS 100

IT 102 **W** **5 credits**
Introduction to Web Design **REEL**

Offers concepts, fundamentals, and techniques of web page design. Topics include web page usability, design principles and development, site planning, and implementation. HTML scripting language and Cascading Style Sheets are used to create structural and presentational web pages. Students will use concepts presented in the course for development of personal and commercial web pages.

Prerequisite: IT 100 or co-enrollment, or instructor permission

IT 104 **S** **5 credits**
Intermediate Web Page Design **REEL**

Continuation of Web Page Design using client and server side scripted/programming languages and dynamic page coding to extend design capabilities and Web Site effectiveness. Methods introduced include browser control, security related issues, and Web Page structural/presentational control using these languages.

Prerequisite: IT 102 (was CS 102), or equivalent, or instructor permission.

IT 111 **S,F** **4 credits**
Intro to Windows **REEL**

Offers an introduction to the study of the Microsoft Windows operating system. Presents fundamental concepts of a Microsoft Windows client operating system such as file management and customizing a graphical user interface (GUI).

Prerequisite: None

IT 140 F 4 credits
Configuring Windows Operating
System REEL

Presents installing, deploying, configuring, monitoring, and maintaining systems that run Microsoft Windows OS. Installation, system images, application, networking, resource allocation, mobile computing, monitoring, maintenance, backup, and recovery topics are included. Continues to prepare students for Microsoft's Certification: Configuring Windows Operating System.

Prerequisite: IT 100 IT Fundamentals (5 credits)

IT 141 F,W 4 credits
PC Technician I REEL

Provides an overview of the roles of the PC technician including: protection and safety of users, acting in a professional manner, communication, and documentations are examined. Technical topics include installation, maintenance, and troubleshooting of system components, peripheral devices, storage, printers, mobile devices, and networking. Prepares students for TestOut's PC Pro and CompTIA's A+ certification exams.

Prerequisite: IT 100 (was CS 100) with a C or better, or instructor permission.

IT 142 Sp 4 credits
PC Technician II REEL

Continues an overview of the roles of the PC technician including: protection and safety of users, acting in a professional manner, communication, and documentations are examined. Technical topics include installation, maintenance, and troubleshooting of system components, peripheral devices, storage, printers, and networking. Continues preparation of students for TestOut's PC Pro and CompTIA's A+ certification exams.

Prerequisites: IT 141 (was CS 141) with a grade of C or better, or instructor permission.

IT 211 F 5 credits
Introduction to Networking REEL

Introduces the fundamental building blocks that form a modern network, such as protocols, media, topologies, and hardware. It then provides in depth coverage of the most important concepts in contemporary networking, such as TCP/IP, Ethernet, wireless transmission, virtual networks, security, and troubleshooting. This course is focused on preparing students for the COMPTIA Network + Certification.

Prerequisite: IT 140 with a grade of C or better or instructor permission.

IT 212 W 5 credits
Installing and Configuring Windows Server REEL

Provides in-depth knowledge of Windows Server, including installation, local and remote management, file and storage services, Active Directory, group policies, TCP/IP, networking services, and Hyper-V virtualization has been acquired. This course prepares students for Microsoft server certification exam objectives and focuses on the skills needed to install and configure Windows Server.

Prerequisite: IT 211 (was CS 211) with a grade of C or better or instructor permission.

IT 213 Sp 5 credits
Local Area Networks: Configuring Windows Server Network Infrastructure REEL

Prepares students for the Microsoft Technology Specialist exam: Windows Server Network Infrastructure Configuring. Focuses on the details of configuring the infrastructure of a network. Prerequisites: IT 212 (was CS 212) with a grade of C or better or instructor permission.

IT 220 Sp 3 credits
Intro to Cloud Computing REEL

Provides an overview of cloud computing from a non-technical perspective. Includes the value of cloud computing, cloud types, adoption of the cloud, impact and changes on IT services, and risks of implementation. Prepares students for the CompTIA Cloud Essentials certification Cloud+. Includes both theoretical study of cloud computing and hands on labs. Prerequisites: IT 140 (was IT 143) or IT 211 (was CS 211) with a grade of C or better, or instructor permission.

IT 230 F 5 credits
Database Development REEL

Offers further study and use of computerized database management systems. Provides intermediate theory and practice in a disciplined approach to problem solving using a database management system in a business environment.

Prerequisite: BTEC 135, Advanced Data Analysis with a grade of C or better, or instructor permission.

IT 235 5 credits
Introduction to Big Data REEL

Provides an introduction to concepts used in data mining and data-analytics, including exploration and application of data modeling tools.

Prerequisites: IT 230 (was CS 230) with a grade of C or better, or instructor permission.

IT 249 W 5 credits
Linux Operating Systems REEL

Prepares students for application of Linux+ certification knowledge and skills. Course is focused on meeting CompTia Linux+ certification objectives in both knowledge and hands on lab practice. It is recommended that most students will need some experience with Linux in the work place prior to attempting the Linux+ exam.

Prerequisites: IT 140 (was IT 143) and IT 211 (was CS 211) each with a grade of C or better, or instructor permission.

IT 260 **Sp** **5 credits**
Info Tech Security **REEL**

Prepares students for application of Security+ certification knowledge and skills. Course is focused on meeting Comptia Security+ certification objectives in both knowledge and hands on lab practice. It is recommended that most students will need some experience with Linux in the work place prior to attempting the Security+ exam.

Prerequisites: IT 211 (was CS 211) with a grade of C or better, or instructor permission.

IT 288 **1-15 credits**
Cooperative Work Experience

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

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

IT 299 **1-10 credits**
Independent Study

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

Prerequisite: By Instructor Permission only.

Intensive English as a Second Language (IESL)

IESL 299 **1-10 credits**
Independent Study

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

Prerequisite: By instructor permission only.

IESL 61 S,F,W,Sp 5 credits
Speaking/Listening I

Provides practice in listening to everyday conversational vocabulary in a variety of meaningful contexts as a first-beginner level. Requires students to respond to simple questions, follow short dialogs, and identify topics in short passages with familiar or pre-taught vocabulary. The speaking portion of the course is designed for students with limited knowledge about English from previous study. Provides practice in speaking English at a beginner level. Improves pronunciation through practice in production of consonant sounds, intonation and rhythm. Focuses on conversational language using familiar topics in a variety of everyday contexts. Introduces culture of the American classroom. This course is part of an intensive English program and provides speaking and listening practice for beginning level. This course may be repeated as needed until reaching competency. Successful completion at an 80% or better allows a student to transition into a level II speaking and listening intensive English course.

Prerequisites: None Concurrent requirements: IESL Reading, IESL Writing, IESL Grammar

IESL 62 S,F,W,Sp 5 credits
Speaking/Listening II

Provides listening practice in listening at a high intermediate level. Strengthens listening skills by building vocabulary and by listening to longer passages and dialogs. Requires students to listen regularly to and understand main ideas in authentic sources of English (TV, radio, video, interviews, etc.) and to comprehend paragraph-length listening passages with familiar or pre-taught vocabulary. Provides speaking practice at the high-intermediate level. Provides more practicing speaking through use of natural situation language and functional language. Provides conversation practice on everyday topics. Stresses ability to discriminate and produce vowel and consonant sounds, to use correct word order, and to respond in complete sentences. This course is part of an intensive English program and provides speaking and listening practice for beginning to intermediate level. This course may be repeated as needed until reaching competency. Successful completion allows a student to transition into a level III speaking and listening intensive English course.

Prerequisites: Completion of IESL level I at an 80% or better or testing placement at level II. Concurrent requirements: IESL - Reading, IESL - Writing, IESL - Grammar

**IESL 63 S,F,W,Sp 5 credits
Speaking/Listening III**

Provides listening practice in listening to everyday conversational vocabulary in a variety of meaningful contexts at a low -intermediate level. Requires students to respond to simple questions, follow short dialogs, and identify topics in short passages with familiar or pre-taught vocabulary. Provides students practice in speaking English at a low -intermediate level. Improves pronunciation through practice in production of consonant sounds, intonation and rhythm. Focuses on conversational language using familiar topics in a variety of everyday contexts. Introduces culture of the American classroom. This course is part of an intensive English program and provides speaking and listening practice for high -intermediate level.

Prerequisites: Completion of IESL level II at an 80% or better or testing placement at level III. Concurrent requirements: IESL Reading, IESL Writing, IESL Grammar

**IESL 64 S,F,W,Sp 5 credits
Speaking/Listening IV**

Provides practice in listening to academic English in both formal and informal contexts. Develops skills in listening to "real" English outside the classroom, comprehending reduced speech and fast idiomatic English, and lecture note taking. Provides speaking practice at the academic level of English. Focuses on discussions of cultural or controversial topics or current events. May require pre-discussion activities in listening or reading as preparation. Provides clarification as needed on degrees of formal and informal language, metaphorical speech, euphemisms, and "sexist" language. Stresses production of comprehensive English. Reinforces understanding of the culture of the American classroom. This course is part of an intensive English program and provides speaking and listening practice for high level. This course may be repeated as needed until reaching competency. Successful completion allows a student to transition out of speaking and listening intensive English courses.

Prerequisites: Completion of IESL level III in speaking/listening at an 80% or better or testing placement at level IV Concurrent: IESL Reading, Writing, Grammar if not at an 80% at level IV

IESL 71 S,F,W,Sp 5 credits
Reading I

Develops reading comprehension for everyday uses, such as reading and understanding directions, forms, letters, short dialogs and stories. Provides instruction and practice in reading strategies, including pre-reading activities (prediction), understanding of spelling patterns, use of context clues, checking for meaning and identifying details. Introduces reading fluency. This part of the International Program and this course may be repeated until successful progress at 80% or better has been met.

Prerequisites: None Concurrent requirements: IESL - Speaking/Listening, IESL - Writing, IESL - Grammar

IESL 72 S,F,W,Sp 5 credits
Reading II

Provides reading practice with intermediate level reading materials in both non-fiction and fiction. Provides practice with previously learned reading strategies, including pre-reading activities (prediction), understanding of spelling patterns, use of context clues, checking for meaning and identifying details. Introduces reading fluency testing to build fluency and flow in reading. Identifies core academic vocabulary lists. This is part of the International Program and this course may be repeated until successful progress has been met.

Prerequisites: Completion of IESL 071 at an 80% or better or testing into level II reading. Concurrent requirements: IESL - Speaking/Listening, IESL - Writing, IESL - Grammar

IESL 73 S,F,W,Sp 5 credits
Reading III

Provides practice for use of comprehension strategies necessary for independent reading. Increases reading fluency while building literary and academic vocabulary. Develop strategies to help extract the main idea, supporting details, and the author's purpose in texts. Requires in-depth reading of academic materials in both print and online formats. Builds higher level academic vocabulary. This course may be repeated until successful progress has been met at 80% or higher.

Prerequisites: IESL 072 completion at an 80% or better or placement testing into level III. Concurrent requirements: IESL - Speaking/Listening, IESL - Writing, IESL - Grammar

IESL 74 S,F,W,Sp 5 credits
Reading IV

Provides practice for extracting key elements in a text. Increase reading fluency while building literary and academic vocabulary. Identify the author's purpose in texts and expand on the inferred meaning. Identifies how to summarize reading of academic materials in both print and online formats. Utilized prior learning to make predictions, analyze and make inferences about texts. This is part of the International Program and this course may be repeated until successful progress has been met at 80% or better at Level IV.

Prerequisites: IESL 073 with an 80% or higher or testing into Level IV. Concurrent requirements: IESL courses at any level lower than IV.

IESL 81 S,F,W,Sp 5 credits
Writing I

Provides practice in writing for simple and compound sentence development; simple tenses; declarative, question, and imperative forms; and singular and plural forms of nouns and verbs. Identifies and models the steps in the writing process related to paragraph development. Focuses on writing at the complete sentence level. This course may be repeated as needed.

Prerequisites: None Concurrent requirements: IESL Speaking/Listening, Reading and Grammar

IESL 82 S,F,W,Sp 5 credits
Writing II

Focuses on writing at the paragraph and beginning essay level. Develops understanding of the writing process related to essay writing. Reviews and teaches articles, gerunds, modals, infinitives and the use of past perfect and past progressive verbs. Provides writing practice for concept mapping/ webs, outlines, rough drafts, peer revision and final drafts of basic essays. This course may be repeated as needed.

Prerequisites: Successful completion of Writing I at an 80% or better or testing into Writing II. Concurrent requirements: IESL Speaking/Listening, Reading and Grammar

IESL 83 S,F,W,Sp 5 credits
Writing III

Extends writing skills at the paragraph and essay levels of organization. Provides opportunities to develop planning, organizing and revising strategies for development of academic level writing. Reinforces skills gained in previous levels for summarizing and writing essays. This course may be repeated as needed.

Prerequisites: Successful completion of Writing II at an 80% or better or testing into Writing III. Concurrent requirements: Other IESL courses if below level IV in any subject area.

IESL 84 S,F,W,Sp 5 credits
Writing IV

Focuses on college writing. Provides opportunities to improve planning and organizing academic writing. Requires utilization of revision strategies for development of academic level writing. Reinforces skills gained in previous levels for summarizing and writing essays. Identifies strategies to respond/react to writing a summary of the main points of a textbook and how to evaluate own academic writing skills. This course may be repeated as needed.

Prerequisites: Successful completion of Writing III at an 80% or better or testing into Writing IV. Concurrent requirements: IESL courses at levels below IESL IV and or English 101

IESL 90 W 1-3 credits
Special Projects - Academic General Support

Provides opportunities for the study of various topics in the transitional phase into college-level classes. Provides individualized study in any area of listening, speaking, reading, writing, or grammar. Includes goal setting and measurement of goals for a lacking academic area. Supports international students who are struggling in one or more subject areas. This course may be repeated for credit depending on student academic progress in college level courses.

Prerequisites: None.

IESL 91 W 1-3 credits
Special Projects - Academic English

Provides opportunities for the study of various topics in the transitional phase into college-level English class (English 101 or above). May serve as an opportunity for individualized study in any area of listening, speaking, reading, writing, or grammar. Includes goal setting and measurement of goals for English classes (English 101 or above). Supports international students who are struggling in a college level English course. This course may be repeated for credit depending on student academic progress in college level courses.

Prerequisites: None Concurrent requirements: English 101 or above

IESL 93 S,F,W,Sp 3 credits
Grammar I

Introduces students to the simple present tense verb 'to be'. Models how to add articles, adjectives, and nouns. Introduces students to other simple present tense statements, negatives, questions, and short answers. Identifies imperatives, adverbs of frequency, and simple modals. Introduces students to new tenses: present continuous, simple past, future going to and will, and present perfect. This course may be repeated until student reaches 80% proficiency at this level.

Prerequisites: None Concurrent requirements: IESL - Reading, IESL - Writing, IESL - Speaking/Listening

IESL 94 S,F,W,Sp 3 credits
Grammar II

Introduces students to new tenses: present continuous, simple past, future going to and will, and present perfect. Introduces them to possessive, direct and indirect objects, linking verbs, quantifiers, comparatives, superlatives, more advanced modals, and conditionals. This course may be repeated until student reaches proficiency at this level.

Prerequisites: Complete Grammar I at an 80% or better or test into level II. Concurrent requirements: IESL - Reading, IESL - Writing, IESL - Speaking/Listening

IESL 95 S,F,W,Sp 3 credits
Grammar III

Develops use of simple present, present continuous, simple past, future going to and will, and present perfect. Develops use of possession, direct and indirect objects in writing. Uses linking verbs, quantifiers, comparatives, superlatives, more advanced modals, and conditionals. Introduces new concepts: passive voice. Develops use of passive voice in simple present and past tense. Introduces past perfect tense. Introduces unreal conditionals, gerunds and infinitives, adjective clauses, adverbial clauses, negative questions. This course may be repeated until student reaches proficiency at this level.

Prerequisites: Complete Grammar II at an 80% or better or test into Grammar III. Concurrent requirements: IESL courses in subjects with a less than 80% proficiency at level IV.

IESL 96 S,F,W,Sp 3 credits
Grammar IV

Focuses on constructing complete, complex, compound and complex/compound sentences. Develops skills in use of colon, semi-colon, commas, quotations and split quotations. Uses unreal conditionals, gerunds and infinitives, adjective clauses, adverbial clauses, negative questions. Develops use of passive voice in other tenses. Identifies misused words, word families, abbreviations and how to correct double negatives. This course may be repeated until student reaches proficiency at this level.

Prerequisites: Complete Grammar III at an 80% or better or test into level IV. Concurrent requirements: IESL courses with a lower than 80% proficiency below level IV.

Library (LIBR)

LIBR 101 2 credits
Introduction to Library and Information Research REEL

Introduces students to the basic principles of information research. Emphasis is placed on the process of locating and evaluating information in both print and online formats. Includes basic introduction to searching the Internet, online databases, online library catalogs, and the use of various tools to access information. An annotated bibliography will be developed in an academic area of the students' choice. This course is especially helpful to those enrolled in classes with a required research paper.

Prerequisite: None.

LIBR 104 2 credits
Information Literacy II REEL

Reinforces basic research skills, strategies, and tools of information. Develops an understanding of the entire research process, from identifying topics to creating an annotated bibliography. Topics include narrowing and refining electronic searches, finding access to many types of resources, and evaluating popular and scholarly sources using a variety of criteria. Avoidance of plagiarism and correct documentation will be emphasized.

Prerequisite: None

LIBR 204 **1-2 credits**
Information Literacy III **REEL**

Guides students through the process of designing and completing a complex research assignment. Emphasis will be placed on evaluating information, including assessing the differences between databases and applying a rubric of information evaluation. Additional topics addressed include proper usage of quotations, citation styles, and annotated bibliographies. Part 1 includes refining a research topic, finding sources, and identifying and avoiding plagiarism. Part 2 focuses on evaluation and annotation of sources and reflection on the research project.

Prerequisite: None

LIBR 288 **1-15 credits**
Cooperative Work Experience

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

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

LIBR 299 **1-10 credits**
Independent Study

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

Prerequisites: By instructor permission only.

LIBR 94 **2 credits**
Information Literacy I **REEL**

Introduces students to the basic skills, strategies, and tools of information research. Emphasis is placed on the process of identifying information needs, selecting appropriate sources, and evaluating information for accuracy. Students will gain competency in using traditional resources, e.g., the library catalog, and also explore electronic resources such as databases and Internet search engines.

Prerequisite: None

Machine Trades (MASP)

MASP 107 **S,F,W,Sp** **2-6 credits**
Machining for Related Occupations
REEL

This course will expose students to three basic types of machine tools as well as general shop safety, layout, cutting tool geometry, and precision measuring. The three areas of focus will be hole operations such as drilling, reaming, and tapping, engine lathe operations such as turning, facing, and boring, and the basic operation of the vertical milling machine.

Prerequisite: None

MASP 111 **S,F,W,Sp** **2-10 credits**
Machine Shop I **REEL**

Designed to introduce the beginning student to the safe operation of basic hand tools, saws, bench grinders, drill press and the engine lathe. The student will use these tools to complete basic projects designed to use the equipment in a wide variety of operations to develop basic skills.

Prerequisite: None

**MASP 112 S,F,W,Sp 2-10 credits
Machine Shop II REEL**

Continues building skills learned in MASP 111, while expanding the scope to include more advanced procedures on equipment used in the previous class. This class also introduces new equipment such as a shaper and surface grinder, along with tools and procedures required for their safe operation.

Prerequisite: 10 credits of MASP 107 and/or MASP 111

**MASP 113 S,F,W,Sp 2-10 credits
Machine Shop III REEL**

Teaches students the use of milling machines and carbide cutting tools. This course will cover various techniques of holding parts and the proper use of different styles of machinery. The student will also learn to apply basic and advanced procedures to accomplish the required tasks.

Prerequisite: 10 credits of MASP 112

**MASP 204 S,F,W,Sp 3 credits
CNC Machining Center Fundamentals REEL**

This course introduces students to the history, theory, and workings of computer numerically controlled Machining Centers. The course provides a basic understanding of the required skills to program, set-up, and operate computerized machine tools.

Prerequisite: None

**MASP 205 S,F,W,Sp 3 credits
CNC Turning Center Fundamentals REEL**

This course introduces students to the history, theory, and workings of computer numerically controlled Turning Centers. The course provides a basic understanding of the required skills to program, set-up, and operate computerized machine tools.

Prerequisite: None

**MASP 221 F,W,Sp 2-10 credits
CNC Milling REEL**

Introduces students through hands-on experience to the basic operations of CNC machines. Working with computer controlled mills, basic machine functions are used to produce parts of various shapes that could not be easily made on conventional equipment.

Prerequisite: MASP 204

**MASP 222 F,W,Sp 2-10 credits
CNC Turning REEL**

Introduces students through hands-on experience to the basic operations of CNC machines. Working with computer controlled turning centers, basic machine functions are used to produce parts of various shapes that could not be easily made on conventional equipment.

Prerequisite: MASP 205

**MASP 223 F,W,Sp 2-10 credits
Advanced CNC Processes REEL**

This course exposes the student to advanced machining practices on the CNC Machining Center and CNC Turning Center including introduction of 4th axis set-ups and programmable tailstock operations. It will also include nontraditional set-ups.

Prerequisite: MASP 221 or MASP 222

MASP 288 F,W,Sp 1-15 credits
Cooperative Work Experience

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

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

MASP 299 F,W,Sp 1-10 credits
Independent Study

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

Prerequisites: By instructor permission only.

MASP 71 1 credit
Machine Shop Support I REEL

Introduces machine shop practices. This theory course addresses topics such as the appropriate uses and safe operation of basic hand tools, saws, bench grinders, drill press and the engine lathe.

Prerequisite: None
 Concurrent requirement: MASP 111

MASP 72 1 credit
Machine Shop Support II REEL

Introduces machine shop practices. This theory course addresses topics such as basic metallurgy and the appropriate uses and safe operation of milling machines and grinding machines.

Prerequisite: None
 Concurrent requirement: MASP 111

Manufacturing (MFG)

MFG 105 S,F,W,Sp 3 credits
Industrial Safety REEL

Provides instruction on safety topics and practices specifically related to industrial work environments. Topics include an overview of OSHA/WISHA requirements, personal protective equipment, energy lock-out/tag-out procedures, material handling, electrical safety, machine guarding, hazardous materials, fire prevention, hazard identification and control, and safety inspection.

Prerequisite: None

MFG 110 4 credits
Project Management REEL

The course is an introduction to the theory of project development procedures. The concepts used for project management will include scheduling by means of the critical path method. The fundamentals of CPM will be presented and the concepts applied with software used in industry. Basic job estimating theory will be presented and applied using current industrial software.

Prerequisite: None

MFG 115 F 5 credits
Manufacturing Process REEL

A compressive study of the processing of materials, industry standards, and the manufacturing techniques that expose students to the basic types of machine tools as well as cutting tool geometry and precision measuring.

Prerequisite: None

MFG 120 **Sp** **4 credits**
Quality Assurance **REEL**

Provides the student with a comprehensive introduction to the principles and purpose of Quality Assurance Management in industry. The student will also gain basic understanding of the quality control tools used in industry, such as standard deviation, histograms, distribution curves, etc.
 Prerequisite: None.

MFG 130 **F,W** **5 credits**
Materials Science **REEL**

Material Science is a study of the nature, structure, characteristics, and properties of natural and synthetic materials used in contemporary industry. Emphasis will be placed on understanding how the structure and properties of industrial influence the selection of primary materials and their conversion into useful products.
 Prerequisite: None

MFG 140 **F** **4 credits**
Applied Hydraulics **REEL**

Covers basic problems of hydraulics, fluids, power, hydraulics actuators, controls, pressures and circuits, and principles of industrial applications.
 Prerequisite: None

MFG 205 **3 credits**
Work Teams in Industry **REEL**

Explores the interpersonal skills, group roles, team structures, problem solving techniques, and work ethics necessary for success in modern industrial organizations. Practical exercises are used to allow students to develop critical skills.
 Prerequisite: None

MFG 230 **Sp** **4 credits**
Computer Integrated Manufacturing
REEL

Introduces the student to the basic concepts of Computer Integrated Manufacturing and provides a foundation for applying those concepts in actual industrial situations. The course also introduces the student to CAD/CAM concepts and their function in the design and manufacturing process. Students will use specialized software to design parts, simulate the machining process, and observe the production of actual machine parts.
 Prerequisite: None

MFG 288 **2 credits**
Cooperative Work Experience

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

MFG 299 **1-10 credits**
Independent Study

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

Math (MATH)

MATH& 107 S,F,W,Sp 5 credits **Math in Society NSCI**

Functions as a terminal course in mathematics for students whose major does not require further mathematics. The core topics of this course are logic, probability and statistics. Additional topics will be selected by the instructor. These topics could include geometry, number systems, linear programming, set theory, number theory, functions, graph theory, topology, etc.

Prerequisites: C or better in MATH 97 or MATH 98 or B or better in CCP 97 or CCP 98

MATH& 131 F,W 5 credits **Math for Elementary Educators 1 ELEC, NSCI**

Strengthens students' understanding of problem solving, operations on whole numbers, decimals and fractions, and number theory. First of a two-part series.

Prerequisites: C or better in MATH 97 or MATH 98 OR B or better in CCP 97 or CCP 98

MATH& 132 W,Sp 5 credits **Math for Elementary Educators 2 NSCI**

Strengthens students' understanding of the real number system, probability and statistics, geometry, measurement, functions and graphs. Second of two-part series.

Prerequisites: MATH& 131 (was MATH 121) with a grade of C or better.

MATH& 141 S,F,W,Sp 6 credits **Precalculus I NSCI**

Reviews basic algebraic operations, equations, inequalities, and operations on functions. Provides the algebraic tools needed to analyze and graph polynomial, rational, exponential, and logarithmic functions. This is the first course in a two course sequence designed to prepare students for Calculus and future STEM coursework.

Prerequisites: C or better in MATH 098, B or better in CCP 098, or placement

MATH& 142 S,F,W,Sp 5 credits **Precalculus II NSCI**

Covers concepts, properties, and algebra of trigonometric functions, including their graphs, inverses, law of sines and cosines, identities, and equations. Introduces polar coordinates, vector operations, and the concept of a limit. This is the second course in a two course sequence designed to prepare students for Calculus and future STEM coursework.

Prerequisites: C or better in MATH 141 or placement Co-requisite: None

MATH& 146 S,F,W,Sp 5 credits **Introduction to Statistics ELEC, NSCI**

Introduces descriptive statistics, probability, and inferential statistical methods. Topics include probability distributions, sampling techniques, measures of central tendency and dispersion, correlation, regression, and statistical inference.

Prerequisites: C or better in MATH 97 or MATH 98 OR B or better in CCP 97 or CCP 98

MATH& 148 W,Sp 5 credits
Business Calculus NSCI

Introduces calculus concepts needed by students of management, social science or biology, or can serve as a survey course for liberal arts majors. Course covers sets, systems of numbers, relations and functions, limits, differentiation and integration, including the definite integral, exponential and logarithmic functions and applications from various fields.

Prerequisite: MATH 125 OR MATH& 141 with a grade of C or better.

MATH& 151 F,W 5 credits
Calculus I ELEC, NSCI

Investigates the ideas of continuity and limit, introduces the derivative as a limit, practices techniques for computing derivatives of functions, discusses the mean value theorem and its significance, utilizes these concepts to solve problems involving related rates and extreme values.

Prerequisites: MATH& 142 with a grade of C or better.

MATH& 152 W,Sp 5 credits
Calculus II NSCI

Introduces techniques of antidifferentiation of functions including trigonometric, logarithmic, exponential, and hyperbolic functions. Applies the concept of the definite integral to solve problems involving force, work, volume, surface area, business and economics.

Prerequisite: MATH& 151 with a grade of C or better.

MATH& 153 S,Sp 5 credits
Calculus III NSCI

Focuses on infinite series, vector calculus and their applications. Incorporates the use of polar, cylindrical and spherical coordinate systems in applications of the calculus.

Prerequisite: MATH& 152 with a grade of C or better.

MATH& 254 F 5 credits
Calculus IV NSCI

Continuation of Calculus III. Topics include partial derivatives, multiple integrals, and vector calculus.

Prerequisites: MATH& 153 with a grade of C or better.

MATH 105 W,Sp 5 credits
Math for Health Sciences REEL

Reviews basic arithmetic skills, including whole numbers and decimal numbers; fractions and percentages. Introduces basic algebraic concepts, including fractional equations and formulas. Covers metric and household systems of measurement and conversion between the systems and calculations needed to determine dosages. Introduces multiple approaches to solving applied math problems. Discusses various charts, graphs, and tables and their uses.

Prerequisites: MATH 79 with a C or better or CCP 79 with a grade of B or better

MATH 106 S,F,W,Sp 5 credits
Industrial Mathematics REEL

Emphasizes basic skills in applied mathematics designed to support students entering the vocational/technical work force of tomorrow. The focus is real world problem solving that students carry to their specific careers. Although the use of math in the workplace is primary, emphasis is given to the critical and creative thinking process as students look to strengthen their use of arithmetic concepts, measurements, practical geometry, basic algebra and right angle trigonometry.

Prerequisite: MATH 79 with a grade of C or better or CCP 79 with a grade of B or better or instructor permission

MATH 125 F,W 6 credits
Applied College Algebra NSCI

Covers equations and inequalities; systems of equations and inequalities; graphing linear, quadratic, polynomial, rational, exponential, and logarithmic functions; matrix operations; linear programming and simplex method; and mathematics of finance.

Prerequisites: C or better in MATH 98 OR B or better in CCP 98 OR appropriate placement test score.

MATH 215 W 5 credits
Discrete Mathematics ELEC, NSCI

Acquaints students with mathematical concepts used in computer science. Topics may include logic, induction, combinatorics, recursion, analysis of algorithms and graph theory.

Prerequisite: MATH& 142 with a grade of C or better.

MATH 220 Sp 5 credits
Linear Algebra NSCI

Presents the theory and properties of matrices, determinants and linear transformations. Introduces vector space and the Gram-Schmidt orthonormalization process. Deals with the calculation and application of eigenvalues and eigenvectors.

Prerequisite: MATH& 152 with a grade of C or better

MATH 240 W 5 credits
Differential Equations NSCI

Introduces techniques of solving ordinary differential equations including the elementary methods used for first order differential equations, method of undetermined coefficients and variation of parameters for higher order equations. Includes techniques of solving systems of differential equations, the method of La Place transforms and series solutions to differential equations. This may be offered as a Capstone course.

Prerequisite: MATH& 254, "C" or better.

MATH 246 F,Sp 5 credits
Probability and Statistics ELEC, NSCI

Covers collecting and summarizing data, probability distributions, confidence intervals, testing hypotheses for one and two samples, chi-square tests, ANOVA, and regression. Emphasis will be placed on data analysis through spreadsheet applications.

Prerequisites: MATH 125 or MATH& 141 with a grade of C or better or placement.

MATH 288 F,W,Sp 1-15 credits
Cooperative Work Experience

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

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

MATH 299 1-10 credits
Independent Study

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

Prerequisites: By instructor permission only.

MATH 78 S,F,W,Sp 3 credits
Pre-College Math I

Covers operations on the real numbers (fractions, decimals, integers, etc.) and introduces the concepts of ratios, proportions, and percents with an emphasis on contextual learning. This is the first 3 credits of a 6 credit course designed to prepare students for either a non-STEM pathway or an algebra intensive pathway.

Prerequisites: B or higher in CCP 32 Math Level B or placement test

MATH 79 S,F,W,Sp 3 credits
Pre-College Math I

Covers operations on and applications of ratios, proportions, and percents. Also includes topics in geometry and measurement with an introduction to algebraic expressions. Emphasis is placed on contextual learning. This is the second 3 credits of a 6 credit course designed to prepare students for either a non-STEM pathway or an algebra intensive pathway.

Prerequisites: C or better in MATH 078 or placement test

MATH 87 F,W,Sp 3 credits
Essentials of Pre-College Math II

Provides an introduction to algebraic concepts such as algebraic expressions, linear equations, and linear functions with an emphasis on contextual learning. This is the first 3 credits of a 6 credit course designed for students who are not planning on taking a course in calculus.

Prerequisites: C or better in MATH 79 or B or better in CCP 79, Placement Exam, or Instructor Permission

MATH 88 S,F,W,Sp 3 credits
Pre-College Math II

Covers solving linear equations and inequalities, an introduction to graphing, and solving systems of linear equations. Techniques and strategies for problem solving are emphasized. This is the first 3 credits of a 6 credit course designed to prepare students for algebra intensive college-level math pathways.

Prerequisite: C or better in MATH 79, B or better in CCP 79, or placement Co-requisite: None

MATH 97 F,W,Sp 3 credits
Essentials of Pre-College Math III

Provides further exploration of algebraic concepts such as linear equations, exponential functions, and an introduction to statistical concepts with an emphasis on contextual learning. This is the last 3 credits of a 6 credit course designed for students who are not planning on taking a course in calculus.

Prerequisites: C or better in MATH 087 or MATH 089

MATH 98 S,F,W,Sp 3 credits
Pre-College Math III

Covers factoring, operations on polynomials and radicals, and an introduction to exponential, logarithmic, and quadratic functions. Techniques and strategies for problem solving are emphasized. This is the second 3 credits of a 6 credit course designed to prepare students for algebra intensive college-level math pathways.

Prerequisites: C or better in MATH 88, C or better in MATH 87, B or better in CCP 88, or placement Co-requisite: None

Medical Assisting (MEDA)

MEDA 101 F,W,Sp 3 credits
Medical Vocabulary I REEL

Introduces basic anatomy & physiology while providing a foundation for building a medical vocabulary including the study of prefixes, roots, suffixes, combining forms, and pronunciation. Emphasis is on using medical terms accurately in the context of healthcare employment settings. Also introduces common diseases, and concepts in disease prevention and health promotion. Students will develop resourcefulness through the use of various tools, including a cyclopedic medical dictionary.

Prerequisite: None

MEDA 102 W,Sp 3 credits
Medical Vocabulary II REEL

Continues the focus of MEDA 101 by developing a medical vocabulary (using word documents, abbreviations, and stand-alone terms), and knowledge relating to common diseases for body systems not covered in MEDA 101.

Prerequisites: MEDA 101 or BTEC 181

MEDA 120 F,W 5 credits
Survey of Human Anatomy & Physiology ELEC

Introduces students to such fundamental biological principles as the cell and metabolism, then progresses through tissues to human organ systems including respiratory, circulatory, digestive, reproductive, immune, nervous, musculoskeletal, urinary and sensory organs.

Prerequisite: ENGL 099 with a C or better or placement into ENGL& 101.

MEDA 122 F,W 3 credits
Law and Ethics for the Medical Office REEL

Presents the legal, ethical, and bioethical issues relevant to medical office settings. Course features legal cases and legislation. Topics include patient confidentiality, advance directives, consents, professional liability, medical malpractice, release of information, bioethical case studies, the American Association of Medical Assistants' professional code of ethics, and specific Washington State legislation relating to Medical Assistants.

Prerequisites: ENGL& 101 or BUS 119; C or higher is required for the Medical Assisting Program. Note: This course must be completed before spring quarter of the Medical Assisting cohort year.

MEDA 145 Sp 6 credits
Medical Laboratory Techniques REEL

Enables students to develop knowledge and skills necessary to work in a healthcare provider's office laboratory. Focuses on quality control, record keeping, specimen collection - including phlebotomy- processing and disposal, urinalysis, hematology, blood chemistry, immunology, and microbiology. This course is part of the educational requirement for the Medical Assistant - Certified, according to Engrossed Substitute Senate Bill 6237 (ESSB 6237), and teaches to the scope of practice according to this law.

Prerequisites: MEDA 101, MEDA 102 (or BTEC 181 and 182), MEDA 120 (or BIOL&241 and 242), MEDA 122; C or higher is required for the Medical Assisting Program. Proof of Bloodborne Pathogens Training (BBP) meeting RCW 70.24.017 and Hepatitis B vaccine series.

MEDA 161 F 4 credits
Examining Room Procedures I REEL

Provides a foundation of knowledge and basic skills for assisting a health care practitioner in a clinical setting. Requires students to perform vital signs, infection control, patient care, and sterile techniques. Explains and discusses OSHA standards for handling biohazardous materials along with first aid and medical emergencies.

Prerequisites: Current enrollment in the Medical Assisting Program. AH 114 or PSYC&200, ENGL&101 or BUS 119; C or higher is required for the Medical Assisting Program. Concurrent requirements: MEDA 120 (or BIOL&241 and 242), if not already completed with a C or higher.

MEDA 162 W 4 credits
Examining Room Procedures II REEL

Builds on competencies developed in MEDA 161, necessary for assisting a health care provider in a clinical setting. Focuses on electrocardiography, specialty procedures, safety in radiography, nutrition in health and disease, and advanced patient screening techniques.

Prerequisites: Current enrollment in the Medical Assisting Program. MEDA 101 or BTEC 181, MEDA 120 (or BIOL&241 and 242), MEDA 161; C or higher is required for the Medical Assisting Program.

MEDA 165 Sp 5 credits
Medications in Medical Assisting & Diseases REEL

Explores knowledge of common diseases and pathology, including diagnostic and treatment modalities. Students will become proficient in using drug reference materials. This course is part of the educational requirement for the Medical Assistant - Certified, according to Engrossed Substitute Senate Bill 6237 (ESSB 6237), and teaches to the scope of practice according to this law. Lecture and laboratory content include administration and documentation of oral, subcutaneous, intramuscular, intradermal, ophthalmic and otic medications.

Prerequisites: Current enrollment in Medical Assisting Program, or Medical Assistant Program Director permission. MATH 105 (or any college level math), MEDA 101, MEDA 102 (or BTEC 181 and 182), MEDA 120 (or BIOL&241 and 242), MEDA 122; C or higher is required for the Medical Assisting Program.

MEDA 190 S 6 credits
Medical Assisting Preceptorship REEL

Provides students the opportunity to apply learned skills and knowledge to a practical experience. Students are assigned to clinics and healthcare provider offices where they rotate to different tasks, building from the simpler to the more complex, under the supervision of a facility-appointed preceptor.

Prerequisite: Current enrollment in Medical Assisting Program, or Medical Assistant Program Director permission. MEDA 145 and MEDA 165; C or higher is required for the Medical Assisting Program. Concurrent requirements: Enrollment in MEDA 195.

MEDA 195 S 1 credit
Medical Assisting Seminar REEL

Brings together students currently in preceptorships to discuss issues as they arise in the workplace. Provides an opportunity to introduce advanced topics in medical assisting or healthcare, as well as job seeking. Topics will include: resume writing and interviewing techniques.

Prerequisites: Current enrollment in Medical Assisting Program, or Medical Assistant Program Director permission. Completion of previous MEDA courses and program requirements; C or higher is required for the Medical Assistant Program. Concurrent requirements: Enrollment in MEDA 190.

MEDA 205 S,F 2 credits
Certification Review for Medical Assisting REEL

Provides information to prepare for the Certified Medical Assistant (CMA) exam offered by the American Association of Medical Assistants (AAMA). Includes a review of anatomy, medical terminology, psychology, ethics, and pharmacology, as well as additional topics in clinical and administrative medical assisting.

Prerequisites: None

MEDA 288 S,F,W,Sp 1-15 credits
Cooperative Work Experience

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

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

MEDA 298 F,W 1 credit
Special Topics in Medical
Assisting REEL

Augments previous academic learning in medical law & ethics. Topics include Washington law for medical assistants and medical board specialties.

Prerequisites: BTEC 164 or similar

MEDA 299 1-10 credits
Independent Study

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

Prerequisites: By instructor permission only.

Music (MUSC)

MUSC& 105 S,F,W,Sp 5 credits
Music Appreciation HUM, ELEC

Examines the development of Western European music throughout history, beginning with the Fall of the Roman Empire through present day. Students will become acquainted with the musical characteristics/styles, composers and music linked to each of the historical time periods, and explore the evolution of music through such elements. This course will transfer to four-year institutions as a Humanities or Elective.

Prerequisites: None.

MUSC& 141 F 5 credits
Music Theory I ELEC, HUM

Introduces the discipline of music theory. Focuses on the fundamentals of musical notation such as pitches, clefs, accidentals, rhythmic values, key signatures, time signatures, and dynamic markings. Introduces intervals, transposition, triads and their inversions, Roman numeral analysis, macro analysis, figured bass notation, cadences, and elements of melodic organization.

Prerequisites: The ability to read music and/or play an instrument Co-requisite: MUSC 111 (Ear Training I)

MUSC& 142 W 5 credits
Music Theory II HUM, ELEC

Continues studies in the discipline of music theory. Focuses on musical texture and textural reduction, species counterpoint, voice leading in the 4-part chorale, harmonic progressions, harmonic rhythm, and the dominant 7th chord.

Prerequisites: MUSC& 141 Co-requisites: MUSC 112 (Ear Training II)

MUSC& 143 Sp 5 credits
Music Theory III ELEC, HUM

Further studies in the discipline of music theory. Focuses on leading-tone 7th chords, non-dominant 7th chords, secondary dominant and secondary leading-tone chords, modulation, basic two-part (binary) form, and basic three part (ternary) form.

Prerequisites: MUSC& 142 Co-requisites: MUSC 113 (Ear Training III)

MUSC& 241 F 5 credits
Music Theory IV HUM

In continuation of a six-quarter music theory sequence, this course expands upon concepts covered in prior quarters. Students will strengthen their knowledge of secondary dominants, leading-tone chords, modulation, and binary and ternary forms. Students will be introduced to increasingly chromatic pre-dominant chords, including modal mixture chords, neapolitan, and augmented 6th chords. Prerequisites: Passing grade in MUSC& 143 (was MUSC 103), or instructor permission

MUSC& 242 W 5 credits
Music Theory V HUM

In continuation of a six-quarter music theory sequence, this course expands upon concepts covered in prior quarters, including chromatic harmony, chromatic melodies, phrase structure, harmonic and structural analysis, and the role of these in the development of musical style. Students will gain mastery of standard Roman Numeral analysis through further understanding of chords such as neapolitan, augmented sixth, secondary dominants, and further chromatic harmonies. This course introduces several new musical forms, including Sonata, Rondo, Concerto, vocal forms, and popular music forms. Students will be introduced to aspects of form including primary, secondary, and closing theme groups, transitional material, and typical characteristics of exposition and development.

Prerequisites: Passing grade in MUSC& 241, or instructor permission

MUSC& 243 Sp 5 credits
Music Theory VI HUM

This course uses skills acquired over the prior five quarters to address post-tonal and popular music topics. Students will apply existing knowledge of harmonic analysis to popular traditions including jazz, blues, and contemporary popular music. This course introduces techniques for analysis and comprehension of post-tonal Western music, including pitch-set and pitch-class analysis, set ordering, and other post-tonal theoretical devices.

Prerequisites: Passing grade in MUSC& 242, or instructor permission

MUSC 100 S,F,W,Sp 5 credits
Fundamentals of Music HUM

Introduces the language of music through performance, music reading, and music writing. Introduces basic keyboard and guitar skills. No prior musical background, skills, or

prerequisites are required. Enrolled students may check out a guitar and a portable keyboard from the LCC Library. Prerequisite: None

MUSC 106 F,W,Sp 1 credit
Keyboard Skills I ELEC, HUM

Introduces basic piano skills in a lab setting comprising group instruction, one-on-one instruction, individual practice, and performance. 'Keyboard skills' courses are intended for music majors, while 'Group Piano Instruction' is intended for non-majors.

Prerequisite: None

MUSC 107 F,W,Sp 1 credit
Keyboard Skills II ELEC, HUM

Reinforces basic piano skills in a lab setting comprising group instruction, one-on-one instruction, individual practice, and performance. 'Keyboard skills' courses are intended for music majors, while 'Group Piano Instruction' is intended for non-majors.

Prerequisite: MUSC 106

MUSC 108 F,W,Sp 1 credit
Keyboard Skills III ELEC, HUM

Further reinforces basic piano skills in a lab setting comprising group instruction, one-on-one instruction, individual practice, and performance. 'Keyboard skills' courses are intended for music majors, while 'Group Piano Instruction' is intended for non-majors.

Prerequisite: MUSC 107

MUSC 111 F 1 credit
Ear Training I ELEC, PERF

Introduces the major solfege system and the art of sight singing in general, focusing on step-wise melodies with simple meters in major keys. Introduces the art of music dictation, or the ability to notate music upon hearing it, by focusing on intervals (pitch pairs), as well as rhythms and melodies in simple meters.

Prerequisite: The ability to read music and play an instrument and/or sing Co-requisite: MUSC& 141

MUSC 112 W 1 credit
Ear Training II ELEC, PERF

Reinforces the major solfege system and introduces sight singing melodies with skips on the tonic triad in compound meters. Broadens music dictation skills by focusing on increasingly wider intervals (pitch pairs), as well as more complex melodies and rhythms in simple meter with beamed 8th notes and dotted notes.

Prerequisite: MUSC 111 Concurrent requirement: MUSC& 142

MUSC 113 Sp 1 credit
Ear Training III ELEC, PERF

Introduces the minor solfege system and explores sight singing melodies with skips on the dominant triad in a variety of meters. Explores increasingly advanced music dictation by focusing on sets of intervals (pitch groups) and the notation of rhythms and melodies in compound meters with beamed 8th and 16th notes.

Prerequisite: MUSC 112 Concurrent requirement: MUSC& 143

MUSC 115 F,W,Sp 2 credits
Group Piano Instruction
ELEC, HUM, PERF

Introduces the skills of piano performance and music reading in a lab setting comprising group instruction, one-on-one instruction, individual practice, and performance. No prior musical background, skills, or prerequisites are required. 'Keyboard Skills' courses are intended for music majors, while 'Group Piano Instruction' is intended for non-majors. Prerequisite: None

MUSC 121 **F** **2 credits**
Concert Choir I **ELEC, HUM, PERF**
 Introduces students to the fundamental techniques and principles of integrating voice and music in an ensemble setting. Students will perform music in a variety of languages, from various genres, eras and styles, ranging from Masterworks to Musical Theatre. Ensemble will perform a minimum of 1 concert per quarter, and all performances are mandatory.
 Prerequisites: Instructor permission.

MUSC 122 **W** **2 credits**
Concert Choir II **ELEC, HUM, PERF**
 Identifies fundamental techniques and principles of integrating voice and music in an ensemble setting. Students will perform music in a variety of languages, from various genres, eras and styles, ranging from Masterworks to Musical Theatre. Ensemble will perform a minimum of 1 concert per quarter, and all performances are mandatory. This course will transfer to four year institutions as an Elective or a Humanities credit.
 Prerequisites: None

MUSC 123 **Sp** **2 credits**
Concert Choir III **ELEC, HUM, PERF**
 Explores fundamental techniques and principles of integrating voice and music in an ensemble setting. Students will perform music in a variety of languages, from various genres, eras and styles, ranging from Masterworks to Musical Theatre. Ensemble will perform a minimum of 1 concert per quarter, and all performances are mandatory. This course will transfer to four year institutions as an Elective or a Humanities credit.
 Prerequisites: None

MUSC 130 **F,W,Sp** **2 credits**
Jazz Ensemble **HUM, PERF**
 Preparation and performance of literature from the jazz idiom appropriate from small to large jazz ensemble for required on and off campus concerts. Jazz literature from the swing era to the present will include bebop, rock, funk, fusion and blues. Prior knowledge of jazz improvisation not required. Open to trumpet, trombone, all saxophone, drum, bass, and guitar players with strong musical skills and good music reading abilities. This course may be repeated for credit up to seven quarters.
 Prerequisite: Audition or approval by instructor.

MUSC 131 **S,F,W,Sp** **2 credits**
Beginning Guitar **ELEC, HUM, PERF**
 Basic chord progressions, strumming and picking patterns, playing popular songs, and reading music on the guitar are introduced. Students will perform with the class and in a duo with a class member.
 Prerequisite: None

MUSC 132 **F,W,Sp** **2 credits**
Intermediate Guitar **ELEC, HUM, PERF**
 Builds on the musical rudiments learned in Beginning Guitar which include melody, rhythm, notes, scales, intervals, chords and exercises in improvisation for those who want to move beyond their basic guitar skills. Students will perform with the class and in a duo with a class member.
 Prerequisite: MUSC 131 or instructor permission.

MUSC 133 **F,W,Sp** **2 credits**
Advanced Guitar **ELEC, HUM, PERF**
 Builds on the skills learned in Intermediate Guitar which include more advanced melody, rhythm, notes, scales, intervals, chords and exercises in improvisation for those who want to develop guitar skills beyond an intermediate level. Students will perform with the class and in a duo with a class member.
 Prerequisite: MUSC 132 or instructor permission.

MUSC 135 **F,W,Sp** **2 credits**
Orchestra **HUM, PERF**
 Offers participation in the Southwest Washington Symphony, a student/community orchestra, which rehearses and performs standard symphonic literature. Admission is by audition. The course may be repeated for credit up to seven quarters.
 Prerequisite: Instructor Permission

MUSC 145 **W** **2 credits**
Beginning Voice **ELEC, HUM**
 Introduces the art of singing, with focus on the development of healthy, efficient vocal production (breath support, vowel alignment, range extension, tone color), diction, song interpretation and performance etiquette. Students will become familiar with the structure and mechanics of the voice through study, discussion, practice and solo performances. Provides students with the skills needed to prepare and perform vocal literature.
 Prerequisite: None

MUSC 150 **F,W,Sp** **2 credits**
Symphonic Band **ELEC, HUM, PERF**
 Rehearsal and performance of symphonic band literature. Participants receive weekly instruction in musicianship and large ensemble performance. Activities of this course may include performance in concerts, commencement, other campus events, and events in the community. Course may be repeated up to seven times for credit.
 Prerequisites: None

MUSC 151 **F** **2 credits**
Bella Voce Choir I **ELEC, HUM, PERF**
 Introduces the fundamental techniques and principles of integrating voice, music and showmanship in small performance choir. Students will memorize and perform music from a variety of styles ranging from Broadway & Contemporary to Jazz & Classical music with an emphasis on a capella repertoire. The course will occasionally employ some choreography, blocking, and/or staging. Ensembles perform a minimum of 1 concert per quarter, as well as various community outreach performances. All performances are mandatory. This course will transfer to four year institutions as an Elective or a Humanities credit.
 Prerequisites: None

MUSC 152 **W** **2 credits**
Bella Voce Choir II **ELEC, HUM, PERF**
 Identifies fundamental techniques and principles of integrating voice, music and showmanship in small performance choir. Students will memorize and perform music from a variety of styles ranging from Broadway & Contemporary to Jazz & Classical music with an emphasis on a capella repertoire. The course will occasionally employ some choreography, blocking, and/or staging. Ensembles perform a minimum of 1 concert per quarter, as well as various community outreach performances. All performances are mandatory. This course will transfer to four year institutions as an Elective or a Humanities credit.
 Prerequisites: None

MUSC 153 **Sp** **2 credits**
Bella Voce Choir III **ELEC, HUM, PERF**
 Explores fundamental techniques and principles of integrating voice, music and showmanship in small performance choir. Students will memorize and perform music from a variety of styles ranging from Broadway & Contemporary to Jazz & Classical music with an emphasis on a capella repertoire. The course will occasionally employ some choreography, blocking, and/or staging. Ensembles perform a minimum of 1 concert per quarter, as well as various community outreach performances. All performances are mandatory. This course will transfer to four year institutions as an Elective or a Humanities credit.
 Prerequisites: None

MUSC 176 **F,W,Sp** **1 credit**
Individual Instruction I
ELEC, HUM, PERF
 Provides instrumental / vocal / composition instruction to acquire and refine musical techniques using skill level appropriate repertoire and materials.
 Prerequisite: None

MUSC 177 **F,W,Sp** **1 credit**
Individual Instruction II
ELEC, HUM, PERF
 Provides instrumental / vocal / composition instruction to acquire and refine musical techniques using skill level appropriate repertoire and materials.
 Prerequisite: MUSC 176

MUSC 178 **F,W,Sp** **1 credit**
Individual Instruction III
ELEC, HUM, PERF
 Provides instrumental / vocal / composition instruction to acquire and refine musical techniques using developmentally appropriate repertoire and materials.
 Prerequisite: MUSC 177

MUSC 221 **F** **2 credits**
Concert Choir IV **ELEC, HUM, PERF**
 Demonstrates fundamental techniques and principles of integrating voice and music in an ensemble setting. Students will perform music in a variety of languages, from various genres, eras and styles, ranging from Masterworks to Musical Theatre. Ensemble will perform a minimum of 1 concert per quarter, and all performances are mandatory. This course will transfer to four year institutions as an Elective or a Humanities credit.
 Prerequisites: None

MUSC 222 **W** **2 credits**
Concert Choir V **ELEC, HUM, PERF**
 Examines fundamental techniques and principles of integrating voice and music in an ensemble setting. Students will perform music in a variety of languages, from various genres, eras and styles, ranging from Masterworks to Musical Theatre. Ensemble will perform a minimum of 1 concert per quarter, and all performances are mandatory. This course will transfer to four year institutions as an Elective or a Humanities credit.
 Prerequisites: None

MUSC 223 **Sp** **2 credits**
Concert Choir VI **ELEC, HUM, PERF**
 Refines fundamental techniques and principles of integrating voice and music in an ensemble setting. Students will perform music in a variety of languages, from various genres, eras and styles, ranging from Masterworks to Musical Theatre. Ensemble will perform a minimum of 1 concert per quarter, and all performances are mandatory. This course will transfer to four year institutions as an Elective or a Humanities credit.
 Prerequisites: None

MUSC 251 **F** **2 credits**
Bella Voce Choir IV **ELEC, HUM, PERF**
 Introduces the fundamental techniques and principles of integrating voice, music and showmanship in small performance choir. Students will memorize and perform music from a variety of styles ranging from Broadway & Contemporary to Jazz & Classical music with an emphasis on a capella repertoire. The course will occasionally employ some choreography, blocking, and/or staging. Ensembles perform a minimum of 1 concert per quarter, as well as various community outreach performances. All performances are mandatory. This course will transfer to four year institutions as an Elective or a Humanities credit.
 Prerequisites: None

MUSC 252 **W** **2 credits**
Bella Voce Choir V **ELEC, HUM, PERF**
 Introduces the fundamental techniques and principles of integrating voice, music and showmanship in small performance choir. Students will memorize and perform music from a variety of styles ranging from Broadway & Contemporary to Jazz & Classical music with an emphasis on a capella repertoire. The course will occasionally employ some choreography, blocking, and/or staging. Ensembles perform a minimum of 1 concert per quarter, as well as various community outreach performances. All performances are mandatory. This course will transfer to four-year institutions as an Elective or a Humanities credit.
 Prerequisites: None

MUSC 253 **Sp** **2 credits**
Bella Voce Choir VI **ELEC, HUM, PERF**
 Refines fundamental techniques and principles of integrating voice, music and showmanship in small performance choir. Students will memorize and perform music from a variety of styles ranging from Broadway & Contemporary to Jazz & Classical music with an emphasis on a capella repertoire. The course will occasionally employ some choreography, blocking, and/or staging. Ensembles perform a minimum of 1 concert per quarter, as well as various community outreach performances. All performances are mandatory. This course will transfer to four-year institutions as an Elective or a Humanities credit.
 Prerequisites: None

MUSC 276 **F,W,Sp** **1 credit**
Individual Instruction IV
HUM, ELEC, PERF
 Provides instrumental / vocal / composition instruction to acquire and refine musical techniques using developmentally appropriate repertoire and materials.
 Prerequisite: MUSC 178

MUSC 277 **F,W,Sp** **1 credit**
Individual Instruction V
ELEC, HUM, PERF
 Provides instrumental / vocal / composition instruction to acquire and refine musical techniques using developmentally appropriate repertoire and materials.
 Prerequisite: MUSC 276

MUSC 278 **F,W,Sp** **1 credit**
Individual Instruction VI
ELEC, HUM, PERF
 Provides instrumental / vocal / composition instruction to acquire and refine musical techniques using developmentally appropriate repertoire and materials.
 Prerequisite: MUSC 277

MUSC 288 **F,W,Sp** **1-15 credits**
Cooperative Work Experience
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.
 Prerequisites: Instructor or Cooperative Education Coordinator permission
 Concurrent requirements: COLL 289 or BUS 294 must be taken prior to or concurrent with this course.

MUSC 299 **1-10 credits**
Independent Study
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.
 Prerequisites: By instructor permission only.

Nursing (NURS)

NURS 150 **F,W,Sp** **2 credits**
Pharmacology for Nursing I **REEL**
 Introduces basic principles of pharmacology and therapeutic modalities. Provides an overview of drug classifications and prototypes.
 Prerequisite: Admission to the nursing program
 Concurrent requirement: NURS 151 or nursing program director approval

NURS 162 F,W,Sp 5 credits
Nursing Practicum II REEL

Provides additional opportunities to perform nursing care in the roles of provider of care, manager of care and member of the profession. Focuses on care of the client in skilled care facilities and additional community settings.

Prerequisites: NURS 161 and NURS 160 with a grade of 'Pass'. Co-requisite: NURS 152

NURS 163 F,W,Sp 5 credits
Nursing Practicum III REEL

Continues to build upon previous experiences. Provides opportunities to perform nursing care in the roles of provider of care, manager of care and member of the profession, in the acute care and community settings, with increasing skill and independence.

Prerequisites: NURS 162 with a grade of 'Pass' Co-requisite: NURS 153

NURS 209 F,W,Sp 2 credits
Nursing Success REEL

Strengthens nursing skills and knowledge to promote success in upper level nursing courses. Reviews selected nursing skills, care planning, dosage calculations, legal concepts and professional issues. Familiarizes the student with LCC Nursing Program policies and clinical requirements, including the clinical setting.

Prerequisite: Formal acceptance into the campus-based 2nd year of LCC nursing program. Instructor permission required for enrollment.

NURS 241 F 2 credits
Essential Concepts of Nursing Practice REEL

Provides content essential to effective and safe registered nursing practice. Concepts of leadership and management are included. Nursing delivery systems, standards of care, quality management, and evidence-based practice are described. The course includes an in-depth review and application of the nursing process. Topics include community-based nursing, culture and ethnicity, nutrition, pharmacology, pain, safety, and infection control.

Prerequisites: Admission to the Nursing Program

NURS 242 F 3 credits
Nursing Throughout the Lifespan REEL

Builds on previous nursing knowledge to present concepts essential to the provision and management of nursing care of patients throughout the lifespan. Topics include cultural influences on health, assessment, patient teaching, growth and development, care of the family. Reviews the nursing care of the pregnant and postpartum patient. Discusses strategies to achieve optimal health for patients of all ages.

Prerequisites: NURS 241 with a grade of C or higher or concurrent enrollment.

NURS 244 W 4 credits
Comprehensive Medical Surgical
Nursing I REEL

Using a body systems approach, explores the etiology, pathophysiology, diagnostic and laboratory studies, health promotion, health assessment, pharmacologic interventions, and nursing management essential to safe and effective nursing care of patients with various health challenges. Topics include nursing management of patients with disorders of the respiratory, cardiovascular, vascular/lymphatic, neurological, urinary/renal, hepatobiliary/pancreatic, and gastrointestinal systems, as well as acid-base/fluid-electrolyte balance.

Prerequisites: NURS 242 with a grade of C or higher or concurrent enrollment.

NURS 245 Sp 4 credits
Comprehensive Medical Surgical
Nursing II REEL

Using a body systems approach, continues to explore the etiology, pathophysiology, diagnostic and laboratory studies, health promotion, health assessment, pharmacologic interventions, and nursing management essential to safe and effective nursing care of patients with various health challenges. Topics include nursing management of patients with disorders of the musculoskeletal, dermatologic, immune, metabolic/endocrine, hematologic, reproductive, visual/auditory systems, and cancer.

Prerequisite: NURS 244 with a grade of C or higher.

NURS 246 Sp 2 credits
Skills Lab REEL

Provides opportunities to develop and enhance proficiency in nursing skills essential to safe and effective nursing practice as provider of care, manager of care, and member of the discipline of nursing, at the beginning registered nurse level.

Prerequisite: NURS 244 with a C or higher
 Co-requisite: NURS 245

NURS 247 S 10 credits
Clinical Practicum REEL

Provides advanced opportunities to apply knowledge and concepts learned in previous courses. Expands critical thinking and increases skill in the performance of nursing care as provider of care, manager of care, and member of the discipline of nursing at the beginning registered nurse level. Expands knowledge of nurse delegation. Community and acute care settings are utilized.

Prerequisite: NURS 246

NURS 248 S 5 credits
Advanced Clinical Practicum REEL

Prepares students for autonomous nursing practice by providing opportunities to perform nursing care under the guidance of a registered nurse preceptor, integrating previous knowledge, skills, and experience. Reinforces critical thinking, decision making, and performance of nursing skills in the beginning registered nurse roles of provider of care, manager of care and member of the profession.

Prerequisites: NURS 247 or concurrent enrollment

NURS 250 F,W,Sp 1 credit
Pharmacology for Nursing II REEL
 Builds upon principles of pharmacology, therapeutic modalities, and dosage calculation with a focus on selected client populations.
 Prerequisites: NURS 150 and NURS 153 with a 'C' or higher. Co-requisite: NURS 251

NURS 251 F,W,Sp 4 credits
Nursing Concepts In Health and Illness IV REEL
 Explores nursing knowledge and concepts focusing on comprehensive nursing care of clients in the roles of provider of care, manager of care and member of the profession. Further expands upon decision making and critical thinking. Topics include maternal-child nursing, growth and development, and health promotion. The cardiac system and the associated nursing care of selected clients is also discussed.
 Prerequisites: NURS 153 with a 'C' or higher or Nursing Program Director permission Co-requisite: NURS 261

NURS 252 F,W,Sp 5 credits
Nursing Concepts in Health and Illness V REEL
 Further develops nursing knowledge and concepts focusing on comprehensive care of clients with acute and complex health issues in preparation for the nursing roles of provider of care, manager of care and member of the profession. Topics include care of the client with respiratory, genitourinary, hematological and gastrointestinal health disorders.
 Prerequisites: NURS 251 with a grade of 'C' or higher Co-requisite: NURS 262

NURS 253 F,W,Sp 5 credits
Nursing Concepts in Health and Illness VI REEL
 Expands on knowledge gained in previous courses. Focuses on providing comprehensive nursing care for clients with complex health care needs. Topics include endocrine disorders, burns, trauma, shock, neurological disorders and disaster preparedness.
 Prerequisites: NURS 252 with a 'C' or higher. Concurrent requirements: NURS 263

NURS 261 F,W,Sp 5 credits
Nursing Practicum IV REEL
 Expands the opportunities to perform nursing in the roles of provider of care, manager of care and member of the profession. Introducing care of maternal-child clients. Builds on previous knowledge and skills to provide further experience in acute care of the adult with increasingly complex health concerns.
 Prerequisites: Complete NURS 163 with a grade of 'Pass', OR concurrent enrollment in NURS 209 Concurrent requirements: NURS 251

NURS 262 F,W,Sp 5 credits
Nursing Practicum V REEL
 Builds upon previous knowledge, skills, and experiences and provides additional opportunities to perform nursing in the roles of provider of care, manager of care and member of the profession. Provides experience with clients experiencing increasingly complex alterations in health. Includes acute care and community settings.
 Prerequisites: NURS 261 with a grade of 'Pass' Concurrent requirements: NURS 252

NURS 263 F,W,Sp 5 credits
Nursing Practicum VI REEL

Prepares students for autonomous nursing practice by providing opportunities to perform nursing care under the guidance of a registered nurse preceptor, integrating previous knowledge, skills, and experience. Reinforces critical thinking, decision making, and performance of nursing skills in the beginning registered nurse roles of provider of care, manager of care and member of the profession.

Prerequisite: NURS 262 with a grade of 'pass' Concurrent requirement: NURS 253

NURS 288 1-15 credits
Cooperative Work Experience

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

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

NURS 299 1-10 credits
Independent Study

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

Prerequisites: By instructor permission only.

NURS 90 S,F,W,Sp 7 credits
Nursing Assistant REEL

Provides the content and experiences for students to achieve mastery of the state-defined competencies required to assist in giving basic nursing care to residents/clients under the supervision of a licensed nurse.

Prerequisites: None.

Nutrition (NUTR)

NUTR& 101 S,F,W,Sp 5 credits
Nutrition NSCI

Develops an understanding of the importance of the science of nutrition and dietary recommendations to maintenance of a healthy life. Students will learn the principles of nutrition as they apply to macro-nutrients and metabolic pathways. Application of vitamins, minerals, and special nutritional requirements at different stages of the life cycle, as well as current issues in nutrition will be considered. This course does not include a lab.

Prerequisite: None

NUTR 298 1-2 credits
Special Topics in Nutrition NSCI

Discusses selected advanced topics in nutrition. Students will have a variety of nutrition related areas to research and/or explore.

Prerequisite: By instructor permission only.

NUTR 299 **1-5 credits**
Independent Study
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.
 Prerequisite: By Instructor Permission only.

Oceanography (OCEA)

OCEA& 101 **S,F,W,Sp** **5 credits**
Intro to Oceanography **NSL**
 Emphasizes principles and processes governing the ocean and its interactions with the surrounding physical environment. Covers topics from physical, chemical, biological and geological oceanography, including origin and evolution of the ocean basins, seafloor sediments, seawater, currents, waves, tides, marine life, and human impacts. Laboratory involves use of globes, charts, and graphs, sediment and biological samples. A field trip may be required.
 Prerequisite: None.

Organizational Leadership and Technical Management (OLTM)

OLTM 300 **F** **5 credits**
Foundations of Leadership **SOCS**
 Introduces students to the study of leadership. Through discussion, lecture, research, readings, and activities, students will explore principles of leadership including leadership theory, leadership within groups, ethics in leadership, barriers to leadership, especially concerning women, minorities and immigration and several different leadership models including relational leadership, servant leadership and adaptive leadership. Students will investigate communication methods used by leaders in organizations, both positive and negative, and will be exposed to theories of organizational behavior as well as a variety of strategies useful to successful leadership. The various components of the course are intended to challenge students to think critically and imaginatively about the foundations of leadership and organizational culture. Students will be responsible for crafting their own model of leadership that reflects the material covered in the course.
 Prerequisites: None

Prerequisites: None

Prerequisites: None

OLTM 330 Sp 5 credits
Entrepreneurship ELEC

Provides students with an overview of the multiple elements associated with starting, operating, and growing a small business. A wide range of fundamental concepts will be covered, including: identifying needs of the marketplace, researching and assessing market opportunities, identifying and analyzing risk, creating a value proposition, designing an introductory marketing platform, obtaining financing, cash flow strategies, and relevant best practices. An introduction into the problem-solving process will be explored utilizing a variety of creative problem-solving approaches along with human centered design thinking. This course will also provide students the opportunity to understand, harness and develop their own passions, skills, insights, creativity, and experiences to evaluate and take advantage of current opportunities.

Prerequisites: None

OLTM 335 Sp 5 credits
Developing and Leading High-Performance Teams ELEC

Provides fundamental concepts, theories, and techniques for guiding work teams to achieve organizational outcomes and maximize human potential. Students will examine current challenges and issues confronting leaders and managers in technical organizations and explore the benefits of diverse teams. Students will learn to identify positive team management strategies to deal with conflict and capitalize on ideas and capabilities to build and sustain high performance teams.

Prerequisites: None

OLTM 440 F 5 credits
Ethics and Leadership: Leading and Managing in a Diverse Society: DIV, HUM

Advances knowledge of diverse cultures, cross-cultural communication, the dynamics of privilege and oppression, and the uses of power between groups. To develop cultural competency, leaders need to know themselves, others, the relevant issues, and have an appreciation and curiosity for working with others. Students will connect global leadership concepts to practice and engage in several activities, discussions, and self-assessment instruments to increase their self-awareness of leadership styles, abilities, strengths, and limitations. Students will evaluate the differences between possessing authority and exercising leadership along with differentiating between ethical actions in relation to the greatest good, individual rights, justice, and/or the common good or identifying how virtue may influence decision making.

Prerequisites: None

OLTM 445 F 5 credits
Global Systems & Change Management SOCS

Focuses on change management within a technical environment. Students will examine key leadership challenges, skills, and competencies needed for effective planning, leading, executing, and sustaining change in a complex environment. Students will work collaboratively through a change management project, engage in research, and examine the importance of assessing an organization's capacity for change with an emphasis on effective decision-making practices and change models.

Prerequisites: None

OLTM 449 F 5 credits
Financial Management ELEC

Introduces analysis of managerial planning and control systems. Students will examine and practice the development and administration of operating reports, budgets, and financial support systems. Accounting vocabulary and financial statement analysis are also introduced, emphasizing financial information for effective organizational leadership.

Prerequisite: College Algebra

OLTM 450 W 5 credits
Negotiations, Mediation and Conflict Resolutions ELEC

Explores themes and skills related to negotiation, mediation, and conflict management within a variety of professional and organizational contexts. Students will explore the nature, sources, and role of conflict within organizations and analyze relationship dynamics and underlying interests among conflicting parties. Students will learn effective individual and group strategies through a variety of experiential activities and simulations.

Prerequisites: None

OLTM 455 W 5 credits
Advanced Project Management ELEC

Develops student knowledge and skills required for effective project management. Students learn the main phases, strategies and tools that support effective project management processes. This course covers all the stages of the project life cycle including selecting projects, project planning, and risk assessment through execution, monitoring and control. By analyzing case studies, students will assess and apply best project management practices in the context of real-world scenarios.

Prerequisites: None

OLTM 460 Sp 5 credits
Coaching and Mentoring ELEC

Provides students an opportunity to integrate leadership knowledge and skills through the application of leadership models as applied to real-world scenarios related to conflict, team dynamics and emotional intelligence. Students will begin to develop a vision of their vocation as leaders by participating in real-time, case-in-point examples of adaptive leadership. Students refine their understanding of the principles of servant leadership and further explore adaptive leadership theory through practice. These two leadership theories, in tandem, provide a unique approach to leadership, with servant leadership cultivating the heart, while adaptive leadership provides an avenue for active application.

Prerequisites: None

OLTM 465 Sp 5 credits
Current Issues in Human Resource Management ELEC

Integrates and applies concepts in human resources, psychology, and business to address current issues in Human Resources Management (HRM). Students will learn to synthesize their knowledge of human resource principles and practice by applying their knowledge to issues of current concern to HRM professionals. Students will probe contemporary topics in human resource management in depth with an emphasis on the impact of legal and societal developments on human resource management practices in areas such as workplace diversity, sexual harassment, gender issues, discrimination, work life balance, and outsourcing.

Prerequisites: None

OLTM 495 **Sp** **5 credits**
Capstone **ELEC**
 Integrates and applies program professional competencies. Students will demonstrate a comprehensive understanding of program outcomes through the development and delivery of a leadership project through one or a combination of the following: Workplace leadership project synthesizing knowledge, skills, and experiences in area of technical expertise; Service/community-based leadership project synthesizing program knowledge, skills, and experiences; College-to-career transition experience (e.g., internship/practicum); Achievement of recognized external industry/professional standards or credentials.
 Prerequisites: A C or better in each OLTM core course

Philosophy (PHIL)

PHIL& 101 **F,W,Sp** **5 credits**
Intro to Philosophy **HUM**
 Explores the major branches of philosophy: Ethics, philosophy of religion, political philosophy, and epistemology while building and expressing a coherent and consistent worldview. Critiques philosophical arguments of significant contributors to the Western philosophical tradition.
 Prerequisite: ENGL& 101

PHIL 260 **W** **5 credits**
Philosophy of Religion **HUM**
 Surveys the primary areas of the philosophy of religion including arguments for the existence of God, the relationship between faith and reason, the attributes of the God of ethical monotheism, the Problem of Evil, theodicies, the nature of religious experiences, miracles, and life after death. Focuses on the Western philosophical tradition, though some non-Western philosophies are used as points of comparison and contrast.
 Prerequisite: ENGL& 101

PHIL 288 **1-15 credits**
Cooperative Work Experience
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.
 Prerequisites: Instructor or Cooperative Education Coordinator permission
 Concurrent requirements: COLL 289 or BUS 294 must be taken prior to or concurrent with this course.

PHIL 299 **1-10 credits**
Independent Study
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.
 Prerequisites: By instructor permission only.

Physical Education (PHED)

PHED 104 **F,W,Sp** **1 credit**
Pilates and Stretch **PAC, REEL**

Strength and flexibility exercises practiced with Pilates routine to create a balanced and effective program. Emphasis on core strength, posture, balance and toning.

Prerequisite: None

PHED 105 **S,Sp** **1 credit**
Pilates & Yoga - Beginning **PAC, REEL**

Pilates and yoga routines will be practiced together to create a balanced and effective strength and flexibility workout. The exercises will emphasize core strength, back strength, posture, balance, and toning major muscle groups.

Prerequisite: None.

PHED 106 **F,W,Sp** **1 credit**
Yoga for Beginners **PAC, REEL**

Introduces yoga routines and poses for a balanced and effective strength and flexibility workout. Emphasizes core strength, back strength, posture, balance, and toning of major muscle groups. Encourages students to link the body and the mind through the poses, routines and meditation time. Students should bring their own yoga mat to class.

Prerequisites: None

PHED 109 **Sp** **2 credits**
Baseball Coaching Theory **ELEC**

Develops a basic understanding of coaching the sport of baseball. Includes concepts of coaching leadership, sport psychology, sport specific coaching theory, and developing proper sport-specific technique. Covers the use of technology and modern equipment to coach players in their individual development. Required for first year baseball student athletes.

Prerequisite: Instructor permission

PHED 110 **2 credits**
Circuit Training **PAC, REEL**

Develops the basic components of physical fitness for students through participation in an aerobic circuit weight training program. The super-circuit aerobics program utilizes a combination of endurance and strength machines to provide one of the most effective conditioning methods known for developing baseline levels of physical fitness.

Prerequisite: None

PHED 114 **W** **2 credits**
Applied Baseball I **PAC**

Provides baseball student athletes an opportunity to demonstrate baseball skills, strategies, and rules of play and participate in a sport specific-strength and conditioning program. Required for all first year baseball student athletes.

Prerequisite: Instructor permission.

PHED 117 **F** **2 credits**
Applied Soccer I **PAC**

Provides soccer student athletes an opportunity to demonstrate their soccer skills, strategies, rules of play, and to participate in a sport specific-strength and conditioning program. Required for all first year soccer student athletes.

Prerequisite: Instructor permission

PHED 118 F 2 credits
Applied Softball I PAC

Provides softball student-athletes an opportunity to demonstrate softball skills, strategies, and rules of play and participate in a sport specific-strength and conditioning program. Required for all first year softball student-athletes.

Prerequisite: Instructor permission

PHED 119 W 2 credits
Men's Basketball Coaching Theory ELEC

Develops a basic understanding of coaching the sport of men's basketball. Includes concepts of coaching leadership, sport psychology, sport specific coaching theory, and developing proper sport-specific technique. Covers the use of technology and modern equipment to coach players in their individual development. Required for first year men's basketball student athletes.

Prerequisite: Instructor permission

PHED 120 S,F,W,Sp 2 credits
Cross-Training ELEC, PAC

Introduces the fundamental theories of cross-training for various types of activities. Implements individualized work-out routines needed to better lifetime fitness whether it is strength training, power lifting, conditioning or endurance. Students will increase strength, fitness and conditioning by taking this class. Students will define and design a work-out program that will help them attain their fitness goals.

Prerequisite: None

PHED 121 1 credit
Beginning Foil Fencing

Presents the skills, strategies, rules, and physical conditioning for the competitive or leisure pursuit of fencing.

Prerequisite: None

PHED 122 1 credit
Intermediate Foil Fencing

Advancement of the skills, strategies, rules, and physical conditioning beyond the basics for competitive or leisure pursuit.

Prerequisite: PHED 121 or instructor permission.

PHED 125 1 credit
Boot Camp ELEC, PAC

Provides a well-rounded, full body work out in every class. Students will work on cardiorespiratory endurance, muscular strength and endurance, body composition and flexibility. Students will keep their heart rates elevated while learning a variety of fitness exercises and using different pieces of fitness equipment such as: kettle bells, stability balls, stretch bands, weighted bars and medicine balls. Class format will include large group, stations, relays and more. Core work outs, Pilates and yoga will also be incorporated into this class.

Prerequisite: None

PHED 126 1-2 credits
Aerobic Exercise PAC, REEL

Guides students through rhythmical and continuous exercise performed to music. Every student, no matter what age or body type, will be provided the opportunity to improve their cardiorespiratory endurance through participation.

Prerequisite: None

PHED 127 1-2 credits
Zumba I PAC, REEL

Fuses hypnotic Latin rhythms and easy-to-follow moves. The routines feature interval training sessions, where fast and slow rhythms and resistance training are combined to tone and sculpt your body while burning fat.

Prerequisite: None

PHED 128 S,F,W,Sp 2 credits
Weight Training PAC, REEL

Improves strength, physical conditioning, and performance through correct use of universal equipment, free weights and cardiorespiratory equipment. Emphasis will be on health and fitness education. Each student will design a program specific to his or her goals for the quarter. Prerequisite: None

PHED 129 1-2 credits
Aqua Zumba I ELEC

Blends the Zumba formula and philosophy with traditional aqua fitness disciplines into a safe, challenging, water-based workout that's body-toning and cardio-conditioning. Lap swim is also available during this time. Prerequisite: None

PHED 130 1 credit
Swimming

Provides instruction of the basic swimming strokes, personal safety skills and conditioning programs for muscular and cardiovascular endurance of the swimmer. Students will attend this class at the Mark Morris pool. Prerequisite: None

PHED 135 2 credits
Fitness Walking PAC

Utilizes walking in developing the health-related components of physical fitness. Emphasis will be placed on cardiorespiratory endurance through low-impact, moderate intensity exercise. Prerequisite: None

PHED 136 F 2 credits
Men's Applied Basketball I PAC

Provides men's basketball student athletes an opportunity to demonstrate basketball skills, strategies, and rules of play and to participate in a sport specific-strength and conditioning program. Required for all first year men's basketball student athletes. Prerequisite: Instructor permission

PHED 137 F 2 credits
Women's Applied Basketball I PAC

Provides basketball student athletes an opportunity to demonstrate basketball skills, strategies, and rules of play and participate in a sport specific-strength and conditioning program. Required for all first year women's basketball student athletes. Prerequisite: Instructor permission

PHED 138 F 2 credits
Applied Volleyball I PAC

Provides volleyball student athletes an opportunity to demonstrate volleyball skills, strategies, and rules of play and to participate in a volleyball-conditioning program. Required for all first year volleyball student athletes. Prerequisite: Instructor permission

PHED 139 F,Sp 1-2 credits
Train for a Race PAC

Promotes instruction, coaching and experience in training for a race (5k, 10k, adventure run). Work-outs will include walking, running, cross-training, obstacle training, strength training and team building. All fitness levels are welcome. If students choose to participate in a race during the quarter, signing up for and cost of the event is the responsibility of the student. Prerequisites: None

PHED 152 S,F,W,Sp 1-2 credits
Personalized Fitness PAC, REEL

Requires students to plan and execute an individual exercise program designed specifically to meet personal goals and objectives related to physical fitness. Students may utilize Lower Columbia's exercise facility or may choose to participate in off-campus activities.
 Prerequisite: None

PHED 155 F,W,Sp 1 credit
Rock Climbing - Beginning PAC, REEL

Provides instruction in the skills and techniques of rock climbing. Introduces rock climbing equipment; provides practice in basic rock climbing skills and belaying. Upon successful completion of the course, students will receive a belay certification. Class is held in the on-campus, indoor rock climbing facility.
 Prerequisites: None

PHED 159 W 2 credits
Women's Basketball Coaching
Theory ELEC

Develops a basic understanding of coaching the sport of women's basketball. Includes concepts of coaching leadership, sport psychology, sport specific coaching theory, and developing proper sport-specific technique. Covers use of technology and modern equipment to coach players in their individual development. Required for first year women's basketball student athletes.
 Prerequisite: Instructor permission

PHED 169 F 2 credits
Women's Soccer Coaching
Theory ELEC

Develops a basic understanding of coaching the sport of soccer. Includes concepts of coaching leadership, sport psychology, sport-specific coaching theory, and developing proper sport-specific technique. Covers the use of technology and modern equipment to coach players in their individual development. Required for soccer student athletes during their first year of classes.
 Prerequisite: Instructor permission

PHED 171 Sp 3 credits
Prevention and Care of Athletic Injuries

Provides training in basic prevention and care of athletic injuries. Includes an introduction to the field of sports medicine, organization and administration of a sports medicine program, recognition of common athletic injuries, evaluation and treatment protocols, rehabilitation techniques and emergency procedures. Basic wrapping, taping, and bracing techniques will be studied and practiced. Basic anatomy, physiology, and infection control will be included.
 Prerequisite: None

PHED 179 W 2 credits
Softball Coaching Theory ELEC

Develops a basic understanding of coaching the sport of softball. Includes concepts of coaching leadership, sport psychology, sport specific coaching theory, and developing proper sport-specific technique. Covers the use of technology and modern equipment to coach players in their individual development. Required for softball student-athletes during their first year of classes.
 Prerequisite: Instructor permission

Prerequisites: None

PHED 216 **W** **2 credits**
Winter Outdoor Experience ELEC, PAC
 Provides local outdoor fitness activities and opportunities to learn the importance of teamwork and winter outdoor safety. Typical activities may include snowshoeing, cross country skiing, winter safety, downhill skiing and/or snowboarding, and team building activities. Actual activities may vary according to the season and equipment availability. Students must be in good physical condition before taking this course. Equipment rental fees vary by quarter and activity, and are the responsibility of the student. Details about costs and specific activities will be provided at the first class session or by contacting the instructor. Three off-campus field trips are a required part of this course.

Prerequisites: None

PHED 217 **F** **1 credit**
Applied Soccer II **PAC**
 Provides soccer student athletes an additional opportunity to refine their soccer skills, strategies, and understanding of rules of play, and to participate in a sport specific-strength and conditioning program. Required for all second year soccer student athletes.

Prerequisite: Instructor permission

PHED 218 **Sp** **1 credit**
Applied Softball II **PAC**
 Provides softball student athletes additional opportunities to refine softball skills, strategies, and rules of play and participate in a sport specific-strength and conditioning program. Required for all second year softball student-athletes.

Prerequisite: Instructor permission

PHED 220 **S,F,W,Sp** **2 credits**
Cross-Training **PAC**
 Introduces the fundamental theories of cross-training for various types of activities. Implements individualized work-out routines needed to better your lifetime fitness whether it is strength training, power lifting, conditioning or endurance. Students will increase strength, fitness and conditioning by taking this class. Students will define and design a work-out program that will help them attain their fitness goals.

Prerequisite: None

PHED 226 **F** **1-2 credits**
Aerobic Exercise **PAC, REEL**
 Guides students through rhythmical and continuous exercise performed to music. Every student, no matter what age or body type, will be provided the opportunity to improve their cardiorespiratory endurance through participation.

Prerequisite: None

PHED 227 **S** **1-2 credits**
Zumba II **PAC**
 Fuses hypnotic Latin rhythms and easy-to-follow moves. The routines feature interval training sessions, where fast and slow rhythms and resistance training are combined to tone and sculpt your body while burning fat.

Prerequisite: None

PHED 228 **S,F,W,Sp** **2 credits**
Weight Training **PAC**
 Improves strength, physical conditioning, and performance through correct use of universal equipment, free weights and cardiorespiratory equipment. Emphasis will be on health and fitness education. Each student will design a program specific to his or her goals for the quarter.

Prerequisite: None

PHED 229 **1-2 credits**
Aqua Zumba II **ELEC**
 Blends the Zumba formula and philosophy with traditional aqua fitness disciplines into a safe, challenging, water-based workout that's body-toning and cardio-conditioning. Lap swim is also available during this time.
 Prerequisite: None

PHED 230 **1 credit**
Swimming
 Provides instruction of the basic swimming strokes, personal safety skills and conditioning programs for muscular and cardiovascular endurance of the swimmer. Students will attend this class at the Mark Morris pool.
 Prerequisite: None

PHED 235 **1-2 credits**
Fitness Walking **PAC**
 Utilizes walking in developing the health-related components of physical fitness. Emphasis will be placed on cardio respiratory endurance through low-impact, moderate intensity exercise.
 Prerequisite: None

PHED 236 **F** **1 credit**
Men's Applied Basketball II **PAC**
 Provides men's basketball student athletes an additional opportunity to refine skills, strategies, and rules of play, and to participate in a sport specific-strength and conditioning program. Required for all second year men's basketball student athletes.
 Prerequisite: Instructor permission

PHED 237 **F** **1 credit**
Women's Applied Basketball II **PAC**
 Provides women's basketball student athletes an additional opportunity to refine their basketball skills, strategies, understanding of rules of play, and to participate in a sport specific-strength and conditioning program. Required for all women's second year basketball student athletes.
 Prerequisite: Instructor permission

PHED 238 **Sp** **1 credit**
Applied Volleyball II **PAC**
 Provides volleyball student athletes an additional opportunity to refine their volleyball skills, strategies, and understanding of rules of play, and to participate in a volleyball-conditioning program. Required for all second year volleyball student athletes.
 Prerequisite: Instructor permission

PHED 246 **F** **1 credit**
Fast-pitch Softball-Women **PAC**
 Presents students the opportunity to learn fastpitch skills, strategies, and rules of play. Students will participate in a softball-conditioning program designed for the sport-related needs.
 Prerequisite: None

PHED 252 **S,F,W,Sp** **1-2 credits**
Personalized Fitness **PAC, REEL**
 Requires students to plan and execute an individual exercise program designed specifically to meet personal goals and objectives related to physical fitness. Students may utilize Lower Columbia's exercise facility or may choose to participate in off-campus activities.
 Prerequisite: None

PHED 285 F 3 credits
Fitness Marketing ELEC

Provides an overview of the marketing process and functions with a focus on launching and growing a fitness business and/or career.

Prerequisites: None

PHED 288 1-15 credits
Cooperative Work Experience

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

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

PHED 295 Sp 3 credits
Personal Training Instruction ELEC

Provides content and skills necessary to become effective personal trainers and to prepare for the ACE Personal Trainer Certification Exam. This course presents the ACE Integrated Fitness Training® Model as a comprehensive system for designing individualized programs based on each client's unique health, fitness, and goals. Information covered will help students learn to facilitate rapport, adherence, self-efficacy, and behavior change in clients, as well as design programs to improve clients' posture, movement, flexibility, balance, core function, cardiorespiratory fitness, muscular endurance and strength, and sports performance. This course is built on a curriculum developed by a nationally recognized certification program.

Prerequisites: None

PHED 296 Sp 3 credits
Group Exercise Instruction ELEC

Provides the knowledge and understanding necessary to prepare for the ACE Group Fitness Instructor Certification Exam and become effective group fitness instructors. Information covered includes: basic human anatomy and exercise physiology, steps in designing a successful group exercise class, understanding the fitness needs of special populations, and examining the business side of group fitness instruction.

Prerequisites: None

PHED 299 1-10 credits
Independent Study

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

Prerequisites: By instructor permission only.

Physical Science (PHSC)

PHSC 108 5 credits
Physical Science NSL

Explores the everyday physical world through the study of matter, momentum and motion, forms of energy, electricity and magnetism. Physical laws are presented that describe the interaction of energy and matter that are seen in everyday life. Students will gain an understanding of the natural world and science as a field of study. Includes lab. Students cannot receive credit for both PHSC 108 and PHSC 109.

Prerequisite: None

PHSC 109 F 5 credits
Energy and Matter: Physical Sciences NSL

Explores energy and matter through the study of matter, momentum and motion, forms of energy, electricity and magnetism. Students will gain an understanding of the natural world and science as a field of study, as well as develop skills to apply and teach scientific principles in everyday life. Intended primarily for elementary education and early childhood education majors. Includes lab. Students cannot receive credit for both PHSC 108 and PHSC 109.

Prerequisite: None

Physics (PHYS)

PHYS& 100 Sp 5 credits
Physics Non-Sci Majors NSL

Emphasizes the process and historical/logical development of physics and relates the conceptual ideas of physics to everyday experience. The course is offered primarily to meet laboratory science requirements for an Associate degree; it is also useful in lieu of high school physics. Laboratory is included.

Prerequisites: MATH 88 OR MATH 97 OR CCP 88 OR CCP 97 OR permission of the instructor.

PHYS& 114 F 5 credits
General Phys I w/Lab NSL

Provides the first quarter of a sequence for students in various health science, technology, and pre-professional areas. Student-initiated motion studies introduce the fundamental principles of mechanics through studies of kinematics, Newton's Principles, energy and momentum conservation principles, and their rotational analogues. Students participate in supporting small group laboratory investigations.

Prerequisites: MATH 098 or MATH 087/097 with a grade of C or better OR CCP 098 or CCP 097 with a grade of B or better.

PHYS& 115 W 5 credits
General Phys II w/Lab NSL

Incorporates both thermodynamics and electromagnetism, including active student investigations of temperature, heat and thermal energy, entropy, the properties of simple electric and magnetic fields, and simple AC and DC circuits. Classroom activities help students connect the nature and role of fundamental principles in physics with real everyday operations of those principles. Students learn operation and use of contemporary instrumentation in lab investigations.

Prerequisites: PHYS& 114 or Instructor Permission.

PHYS& 116 **Sp** **5 credits**
General Phys III w/Lab **NSL**

Emphasizes the scientific development of fundamental principles through active student investigations of mechanical and electromagnetic waves, geometrical and physical optics, special relativity, particles, waves, the quantum theory of the atom, the physics of the nucleus, and elementary particle theory as time permits.

Prerequisite: PHYS& 115 (was PHYS 102) or instructor permission.

PHYS& 221 **F** **5 credits**
Engr Physics I w/Lab **NSL**

Provides the first quarter of a three-quarter calculus-based physics sequence for majors in the physical sciences, engineering, or mathematics. The Principles of Newtonian Mechanics are introduced, progressing through kinematics, then dynamics, with applications to problems involving particle and rigid body motion. Small groups carry out supporting lab investigations that further clarify and apply these fundamental principles. Use of elementary calculus gradually increases during the quarter.

Prerequisites: Completion of or concurrent enrollment in MATH& 151 or instructor permission.

PHYS& 222 **W** **5 credits**
Engr Physics II w/Lab **NSL**

Second quarter of a three-quarter calculus-based physics sequence for majors in the physical sciences, engineering, or mathematics. Incorporates study of the mechanics of fluids, oscillatory motion, thermodynamics, electrostatics and electric current. Student labs include investigations of waves, temperature, heat flow, entropy and static electricity. The laboratory component further clarifies and applies these fundamental principles. Prerequisites: PHYS& 221, MATH& 152 or instructor permission.

PHYS& 223 **Sp** **5 credits**
Engr Physics III w/Lab **NSL**

Third quarter of a three-quarter calculus-based physics sequence for majors in the physical sciences, engineering, or mathematics. Incorporates electromagnetism and wave physics through student investigation of magnetism, time-varying magnetic fields, DC and AC circuits, electromagnetic waves, geometrical and physical optics. The laboratory component further clarifies and applies these fundamental principles. Prerequisites: PHYS& 222 or instructor permission.

PHYS 288 **1-15 credits**
Cooperative Work Experience

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

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

PHYS 299 **1-10 credits**
Independent Study
 Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.
 Prerequisites: By instructor permission only.

Political Science (POLS)

POLS& 101 **F,W,Sp** **5 credits**
Introduction to Political Science SOCS
 Examines the foundations of political science: key political ideas, theories, processes, and institutions, and explores examples of these in today's world.
 Prerequisite: None

POLS& 202 **S,F,W,Sp** **5 credits**
US Government SOCS
 Studies the structure practices and interactions of the political and governmental institutions of the United States, evaluating them from multiple theoretical perspectives.
 Prerequisite: ENGL&101

POLS& 203 **W,Sp** **5 credits**
International Relations SOCS
 Introduces the nature and basic principles of international politics, with an analysis of such concepts as imperialism, nationalism, internationalism, the causes of war, and conditions for peace.
 Prerequisite: ENGL& 101

POLS& 204 **5 credits**
Comparative Government SOCS
 Analyzes the political and economic systems and ideologies of capitalism, socialism, communism, and fascism within the context of the cultural traditions of Western Civilization and considers these systems as alternative methods of the allocation of political and economic power in society, with special emphasis given to the disparity between the stated objectives of these systems and their actual accomplishment.
 Prerequisites: None

POLS 220 **Sp** **5 credits**
Law and Social Issues SOCS
 Examines the interrelationships between law and social structures, processes, evolution and changes in society and laws. Explores lines drawn by democracies in the attempt to reconcile individual freedoms with the rights of the community. Analyzes and evaluates issues with basic rights and liberties, freedom of expression, due process of law, and political, social and racial equality.
 Prerequisites: ENGL& 101

POLS 288 **1-15 credits**
Cooperative Work Experience
 Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success.
 Prerequisites: Instructor or Cooperative Education Coordinator permission
 Concurrent requirements: COLL 289 or BUS 294 must be taken prior to or concurrent with this course.

POLS 294 W 1-5 credits
Selected Topics in Political Science I

Examines topical or special issues in political science. Course theme and content change to reflect new topics, which are announced in the quarterly class schedule.

Prerequisite: None

POLS 295 1-5 credits
Selected Topics In Political Science II

Examines topical or special issues in political science. Course theme and content change to reflect new topics, which are announced in the quarterly class schedule.

Prerequisite: None

POLS 296 1-5 credits
Selected Topics In Political Science III

Examines topical or special issues in political science. Course theme and content change to reflect new topics, which are announced in the quarterly class schedule.

Prerequisite: None

POLS 297 1-5 credits
Selected Topics in Political Science IV

Examines topical or special issues in political science. Course theme and content change to reflect new topics, which are announced in the quarterly class schedule.

Prerequisite: None

POLS 299 1-10 credits
Independent Study

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

Prerequisites: By instructor permission only.

Process Control Manufacturing (PMFG)

PMFG 110 W 5 credits
**Industrial & Predictive Maintenance
Fundamentals REEL**

Introduces essential elements of industrial maintenance. Provides an overview of the jobs and tasks generally performed in manufacturing operations. Covers an overview of general types of industrial equipment, the proper use of a variety of hand tools and measuring instruments, and an exploration of fasteners, bearings, bushings, seals, and lubrication systems. Presents safety procedures including lockout/tag out of electrical/mechanical energy systems, sketching using ANSI standards, layout and machinery installation, and basic troubleshooting techniques.

Prerequisites: None

PMFG 150 F 6 credits
Electrical and Electronic
Fundamentals REEL

Introduces the nature and principles of electricity and electrical/electronic devices. Focuses on general principles, safety, industrial applications, and includes topics related to both DC and AC circuits. Topics explored include basic theory and direct current circuits, measuring instruments, interpretation of electrical and schematic diagrams, ohms law, basic electrical circuit analysis, applied mathematical concepts used in solving for values in series and parallel circuits, electrical safety and basic magnetic concepts. Additional topics are alternating current circuits, the use of AC measuring instruments, single phase and three phase AC distribution systems, transformers, and an overview of basic electronic devices, their function, and common applications. The course is designed for individuals entering the electrical trades, maintenance personnel or production/process operators.

Prerequisites: MATH 78/79 or higher or CCP 79 or concurrent enrollment, or instructor permission

PMFG 151 F 5 credits
Process Control Equipment REEL

Provides an overview of process control equipment for operating personnel in industries utilizing process manufacturing techniques. Introduces the fundamentals of process control, control equipment and equipment fault identification and troubleshooting.

Prerequisites: None

PMFG 154 5 credits
Fundamentals of Instrumentation and
PLCs REEL

Introduces principles of instrumentation controls and devices. Discusses the process of converting information into electrical or pneumatic signals for measurement and control, and its industrial applications. Introduces compressed air systems, programmable logic control, current-to-pressure, and piping instrument diagrams. Builds on knowledge of electrical fundamentals.

Prerequisites: PMFG 150 and PMFG 151 or instructor permission.

PMFG 201 W 3 credits
Electrical Control Equipment REEL

Introduces the operation, troubleshooting, and adjustment of various types of electrical control equipment. Fuses, molded case circuit breakers, and control switches are covered. Includes basic principles of motor starters and troubleshooting of control circuits.

Prerequisite: PMFG 150 or instructor permission.

PMFG 202 Sp 2 credits
Electric Motors REEL

Covers the concepts, maintenance, and testing of AC and DC motors. Includes a study of components and operation of a variety of AC motors and DC motors. Single-phase and three-phase motors are covered.

Prerequisite: PMFG 201 or instructor permission.

PMFG 210 **Sp** **5 credits**
Advanced Industrial Maintenance
REEL

Explores more advanced industrial maintenance topics, including preventative maintenance, centrifugal pump repair, valve repair, rigging and lifting, vibration analysis, and shaft alignment. Safe work practices are stressed, and relevant safety topics are covered during the course.

Prerequisite: PMFG 110 or instructor permission.

PMFG 220 **Sp** **5 credits**
Introduction to Renewable Energy
REEL

This course provides an introduction to renewable energy sources. Topics will include biomass for fuels and electricity generation, solar, wind, geothermal and hydroelectric energy. Students will compare technology, social, environmental and economic impacts of renewable energy. Upon completion, students will be able to demonstrate an understanding of renewable energy and its impact on humans and the environment.

Prerequisites: MATH 97 or CCP 97 and ENGL 99 or higher or instructor permission

PMFG 288 **1-15 credits**
Cooperative Work Experience

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

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

PMFG 299 **1-10 credits**
Independent Study

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

Prerequisites: By instructor permission only.

Psychology **(PSYC)**

PSYC& 100 **S,F,W,Sp** **5 credits**
General Psychology **SOCS**

Explores the history, scientific principles and theories of psychology. Discusses biological aspects of behavioral and perceptual processes. Topics include behavior, thought, emotion, perception, learning, memory, sexuality and gender, personality theory, and psychological disorders. Examines research and current trends in psychology. Addresses diversity and social factors in human psychology.

Prerequisite: None

PSYC& 200 **S,F,W,Sp** **5 credits**
Lifespan Psychology **SOCS**

Examines biological, psychological, and social factors of human development, from conception to death. Presents theories and research regarding human growth and development across the lifespan. Explores developmental theories to analyze growth and change through each of the major stages of life. Addresses the effect of poverty and culture on development.

Prerequisite: PSYC& 100

PSYC& 220 W,Sp 5 credits
Abnormal Psychology

Presents a study of abnormal psychopathology, specifically a study of abnormal human behavior, its description, causes, and diagnosis. Emphasis on treatment and major diagnostic categories such as schizophrenia, personality, mood, and organic brain disorders.

Prerequisite: PSYC& 100 (was PSYC 111) or instructor permission.

PSYC 150 F,W,Sp 2 credits
Psychosocial Issues in Health Care I
SOCS

Presents concepts necessary for the provision of psychosocial healthcare. Examines determinants of health and illness across the lifespan, including social, psychological, environmental, spiritual and cultural dimensions, within the context of health care. Topics include coping mechanisms, therapeutic communication, culturally sensitive nursing care and social determinates of health. Fulfills distribution requirement for AN-DTA only. Course offering to nursing program students only. Prerequisites: NURS 152 with a grade of 'C' or higher or instructor permission.

PSYC 198 Sp 1-2 credits
Special Topics in General Psychology
SOCS

Discusses selected topics in psychology, with an emphasis on health care. Restricted to students majoring in nursing who have successfully completed PSYC& 100 at another institution but require one to two additional credits for the AN DTA/ MRP degree. Course intended for nursing students who have transferred in three or four credits of PSYC& 100 from another institution. Five credits are required for the AN DTA/MRP degree.

Prerequisites: Instructor permission and PSYC& 100.

PSYC 250 F,W,Sp 3 credits
Psychosocial Issues in Health Care II
SOCS

Presents additional concepts necessary for the provision of psychosocial healthcare. Analyzes determinants of health and illness across the lifespan, including social, psychological, environmental, spiritual and cultural dimensions, within the context of health care. Topics include care of the client experiencing mental health challenges, anxiety disorders, thought disorders, mood disorders and chemical dependency. Fulfills distribution requirement for AN-DTA only. Course offering to nursing program students only. Prerequisites: NURS 251 and PSYC 150 (or 2 credits of PSYC 255) with a grade of 'C' or higher.

PSYC 255 W 5 credits
Psychosocial Issues in Health Care
SOCS

Presents additional concepts necessary for the provision of psychosocial healthcare. Analyzes determinants of health and illness across the lifespan, including social, psychological, environmental, spiritual and cultural dimensions, within the context of health care. Topics include care of the client experiencing mental health challenges, anxiety disorders, thought disorders, mood disorders and chemical dependency. Fulfills distribution requirement for AN-DTA only. Course offering to nursing program students only. Prerequisite: Admission to the Nursing program.

PSYC 288 S,F,W,Sp 1-15 credits
Cooperative Work Experience

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

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

PSYC 298 Sp 1-2 credits
Special Topics in Lifespan Psychology SOCS

Discusses selected topics in lifespan psychology. Restricted to students majoring in nursing who have successfully completed PSYC& 200 at another institution but require one or two additional credits for the AN DTA/MRP degree. Course intended for nursing students who have transferred in three or four credits of PSYC& 200 from another institution. Five credits are required for the AN DTA/MRP degree.

Prerequisites: Instructor permission and PSYC& 200.

PSYC 299 1-10 credits
Independent Study

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

Prerequisites: By instructor permission only.

PSYC 320 Sp 5 credits
Leadership and Organizational Psychology SOCS

Foundation course in the actions of individuals, groups, and organizations. Relate theory and research to organizational problems by reviewing advanced concepts in motivation and perception, leadership, decision-making, communication and influence, group behavior, diversity, conflict and cooperation, politics, corporate culture, organizational structure, and environmental influences.

Prerequisites: None

Sociology (SOC)

SOC& 101 S,F,W,Sp 5 credits
Introduction to Sociology: DIV SOCS, DIV

Examines the complexity of the sociological perspective to provide students with the conceptual tools essential to the development of a more complex understanding of the human condition. Students develop a comprehension of the role that social organization, socialization and social interaction plays in the formulation of social identity, a common conceptual understanding, social inequality and cultural diversity. (Formerly known as SOCY 110)

Prerequisite: None

SOC& 201 **5 credits**
Social Problems: The Pursuit of Social Justice DIV **SOCS, DIV**

Study of the magnitude and consequences of social problems in the US from a sociological; power, privilege and inequity; and cross cultural perspective. Examination of solutions that promote social justice and equity. Topics include: poverty, crime and the US justice system, the environment, racial and economic inequalities, gender identity, substance abuse and terrorism.

Prerequisites: PSYC& 100 or SOC& 101

SOC 210 **5 credits**
Human Sexuality: DIV **SOCS, DIV**

Presents examination of the scientific research that has led to a better understanding of human sexuality in its anatomical, physiological, sociological, cultural, and psychological aspects. Draws upon the multiple disciplines of sociology, psychology, and cultural anthropology. Incorporates English literature in biographies and/or short story form to illuminate real world issues. Special attention is given to sexual diversity, specifically marginalized LBGTQ individuals, sexual disorders, and sex and gender non-conformity.

Prerequisites: None.

SOC 225 **5 credits**
Race and Ethnicity: DIV **DIV, SOCS**

Examines the complexities of race and ethnicity in America and around the world. Topics include the social construction of racial and ethnic identities, the historical patterns of racial and ethnic exclusion, and the role of race and ethnicity in the perpetuation of social inequality and the shaping of world events.

Prerequisite: None

SOC 288 **1-15 credits**
Cooperative Work Experience

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

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

SOC 299 **1-10 credits**
Independent Study

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

Prerequisites: By instructor permission only.

Spanish (SPAN)

SPAN& 121 **S,F,W,Sp** **5 credits**
Spanish I: DIV **DIV, HUM**

Introduces Spanish, emphasizing basic vocabulary and points of language. Aiming at self-expression and literacy, this course engages students in reading, writing, listening, and speaking in the target language. Students will also acquire knowledge of the diverse social, ethnic, and cultural groups that use the language and observe how artistic expression reflects the diversity of cultural values.

Prerequisites: None

SPAN& 122 S,F,W,Sp 5 credits
Spanish II: DIV HUM, DIV

Provides continuation of basic principles offered in SPAN& 121, accumulates vocabulary, reinforces basic grammar, and increases fluency. Aiming at self-expression and literacy, this course engages students in reading, writing, listening, and speaking in the target language. Students will also acquire knowledge of the diverse social, ethnic, and cultural groups that use the language and observe how artistic expression reflects the diversity of cultural values.

Prerequisites: SPAN& 121 with a grade of C or better or two years of high school Spanish.

SPAN& 123 S,F,W,Sp 5 credits
Spanish III: DIV DIV, HUM

Provides further development of basic skills, accumulates vocabulary, reinforces basic grammar, introduces new grammatical principles, and increases fluency. Aiming at self-expression and literacy, this course engages students in reading, writing, listening, and speaking in the target language. Students will also acquire knowledge of the diverse social, ethnic, and cultural groups that use the language and observe how artistic expression reflects the diversity of cultural values.

Prerequisites: SPAN& 122 with a grade of C or better or three years of high school Spanish.

SPAN& 221 Spanish IV	S,F,W,Sp	5 credits
		HUM

Provides an intensive review of vocabulary and basic points of language included in the first year, introduces new points, develops communication problem solving skills, and builds an extensive vocabulary pertinent to contemporary social and cultural issues.(Formerly known as SPAN 201)

Prerequisite: For enrollment in second-year Spanish courses, students must complete first-year college level Spanish.

SPAN& 222 Spanish V	S,F,W,Sp	5 credits HUM
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Continues to build communication skills, accumulate vocabulary, and increase fluency, with added emphasis on literacy. (Formerly known as SPAN 202)

Prerequisite: SPAN& 221 (was SPAN 201) or equivalent.

SPAN& 223	S,F,W,Sp	5 credits
Spanish VI		HUM

Continues to build communication skills, accumulate vocabulary, and increase fluency, with added emphasis on literacy. (Formerly known as SPAN 203)

Prerequisite: SPAN& 222 (was SPAN 202) or equivalent.

SPAN 104 **3-5 credits**
Introduction to Spanish in the Workplace

Introduces Spanish, presenting realistic situations and specialized vocabulary needed for basic communication with Spanish speakers in the workplace. Personalized questions, grammar exercises, dialog activities, and role-playing provide students with numerous opportunities to apply points of language in a wide variety of practical contexts. Within any of the vocabulary-specific domains, students will advance from one level to the next in sequence (SPAN 105, 106, and 107).

Prerequisite: None

SPAN 105 **3-5 credits**
Introduction to Spanish in the Workplace

Builds vocabulary and introduces more complex points of language, including idioms, grammar, and, especially, pronunciation. Provides additional opportunities for telephone and face-to-face communication in workplace settings. Within any of the vocabulary-specific domains, students will advance from one level to the next in sequence (SPAN 105, 106, and 107).

Prerequisite: SPAN 104 or equivalent

SPAN 106 **3-5 credits**
Spanish in the Workplace

Accumulates vocabulary and introduces additional verb forms and pronoun usage, which are essential to clear oral communication. Enables further telephone and face-to-face communication with clients and co-workers whose principle language is Spanish. Within any of the vocabulary-specific domains, students will advance from one level to the next in sequence (SPAN 105, 106, and 107).

Prerequisite: SPAN 105 or equivalent

SPAN 107 **3-5 credits**
Spanish in the Workplace

Increases fluency, concentrating on effective communication (listening and speaking), self-expression, and literacy. Within a particular domain, students will learn to interact with clients and co-workers whose principal language is Spanish. Within any of the vocabulary-specific domains, students will advance from one level to the next in sequence (SPAN 105, 106, and 107).

Prerequisite: SPAN 106

SPAN 288 **F,W** **1-15 credits**
Cooperative Work Experience

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

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

SPAN 299 **1-10 credits**
Independent Study

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

Prerequisites: By instructor permission only.

SPAN 97 **2 credits**
Spanish Grammar for Beginners:
Present Tense Verbs

Enables understanding of verb conjugation in the present tense in Spanish. Presents minimal vocabulary and does not concern oral proficiency. While this course is self-directed, students may be assisted by a tutor or an instructor. Graded on a credit/no credit basis. (Formerly known as INDV 097)

Prerequisite: None

SPAN 98 **1 credit**
Spanish Grammar for Beginners:
Nouns/Modifiers

Enables understanding of nouns and modifiers in Spanish. Presents minimal vocabulary and does not concern oral proficiency. While this course is self-directed, students may be assisted by a tutor or an instructor. Graded on a credit/no credit basis. (Formerly known as INDV 098)

Prerequisite: None

Substance Use Disorders (SUDS)

SUDS 101 **S,F,W,Sp** **5 credits**
Introduction to Substance Use Disorders **SOCS**

Introduces substance use disorders, including diagnostic criteria, socio-cultural aspects, substance use progression, treatment, and prevention. Discusses various substances involved in substance use disorders and their effects on health and behavior. Describes basic treatment principles and models. Foundational course for students interested in a career in the substance use disorders field.

Prerequisites: None

SUDS 102 **W** **3 credits**
Introduction to Theories and Counseling **REEL**

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

Prerequisites: SUDS 101

SUDS 105 **W** **3 credits**
Substance Use Disorders/Domestic Violence **REEL**

Examines the relationship of substance use disorders and intimate relationship abuse, neglect and harm. Analyses family violence as well as the legal and social impact on society and the family system.

Prerequisites: None

SUDS 107 **Sp** **3 credits**
Adolescent Substance Use Disorder Assessment and Treatment **REEL**

Examines treatment modalities and screening tools used while working with adolescents. Delineates adolescent developmental stages and their influence on adolescent substance use, dependence, including the impact on cognitive and socioemotional development. Examines the impact on the family system, society and challenges specific to adolescent substance use diagnosis, treatment and recovery. Explores the challenges of treating adolescents experiencing co-occurring disorders.

Prerequisites: None

SUDS 109 F 4 credits
Process of Addiction and Compulsive Behaviors REEL

Explores compulsive behaviors and addiction from various perspectives. Examines the principles of addiction, features of compulsive behaviors, risk factors, and signs and symptoms related to the recovery process. Includes discussion of addiction and compulsive behaviors in populations that have been traditionally marginalized.

Prerequisites: None

SUDS 110 Sp 3 credits
Alcohol/Drug Pathophysiology and Pharmacology REEL

Examines the pharmacological effects on the human body with an emphasis on the pathophysiological process of alcohol and other drugs. Explores drug classifications, prescription and non-prescription, drug interactions, and poly-substance use. Analyzes the detoxification process related to acute and post-acute withdrawal signs and symptoms. Explores the effects of maternal substance use on prenatal development.

Prerequisites: SUDS 101, 102, 113

SUDS 111 Sp 3 credits
Record Keeping and Case Management REEL

Analyses skills required for case management and record keeping. Discusses documentation, screening, intake procedures, assessment, treatment planning, clinical progress notes and reports. Introduces discharge summaries, confidentiality laws and responsibilities. Introduces service coordination, treatment plan implementation and continued assessment of goals and objectives. Introduction to American Society of Addiction Medicine (ASAM) treatment recommendation standards when determining levels of care for SUD treatment.

Prerequisites: SUDS 101, 102, 113

SUDS 113 F 3 credits
Substance Abuse and Addiction Treatment Methods REEL

Introduces the process and principles for effectively treating moderate to severe substance use disorders/addictions. Examines the importance of using a developmental approach when treating addiction and explains the counselor's role in assisting the client while moving through the stages of recovery. Introduces various approaches and methods such as motivation interviewing and fundamental counseling skills.

Prerequisites: SUDS 101

SUDS 114 W 2 credits
Suicide Assessment, Prevention, and Crisis Management REEL

Presents methods for assessing suicide risk, intervention techniques and suicide prevention strategies. Explores crisis management methods. Discusses the legalities involved in suicide assessment, prevention and mandatory reporting.

Prerequisites: None

SUDS 121 W 3 credits
SUD Professional and Ethical
Responsibilities REEL

Explores the history of legal, ethical and professional codes applicable to the substance use disorder profession. Examines ethical decision making, confidentiality, boundaries and maintaining the professional counselor/client relationship within a multicultural context.

Prerequisites: None

SUDS 201 Sp 3 credits
SUD and the Family System REEL

Examines counseling strategies for substance use, abuse and addiction within the context of the family system dynamic. Introduces client, family and community education and treatment modalities.

Prerequisites: SUDS 101, 102, 113, 215

SUDS 202 F 3 credits
SUD Counseling with Diverse
Populations REEL

Introduces skills and responsibilities needed to work as a culturally aware substance use disorder counselor. Examines culture, ethnicity, race, sexual orientation, ability, age, gender, spiritual values, socioeconomic factors, underserved and marginalized populations. Students are expected to explore their own identities and assumptions towards bias, oppression, discrimination and marginalization.

Prerequisites: SUDS 101, 102, 113, 121

SUDS 203 W 3 credits
Relapse Prevention and Intervention
REEL

Introduces relapse prevention and interventions strategies. Discusses intervention and relapse processes and techniques. Discusses assessment, education, intervention, relapse, treatment planning, family system involvement and stress reduction.

Prerequisites: SUDS 101, 102, 113

SUDS 215 F 3 credits
Group Counseling: Theories and
Applications REEL

Introduces practices and the application of group counseling theories. Explores group counseling dynamics and techniques. Analyses the therapeutic benefit of group counseling. Examines the purposeful group experience and basic social process. Explores ethical practices within the group counseling setting. Introduces group counseling skills necessary for group facilitation.

Prerequisites: SUDS 101 and 113

SUDS 220 Sp 3 credits
Co-Occurring Disorders: Mental Health
Disorders in SUDS REEL

Examines the immediate and lasting mental and emotional impact of co-occurring disorders. Explores the co-occurring impact of substance use and mental health. Introduces best practice modalities used when treating individuals experiencing a co-occurring disorder.

Prerequisites: SUDS 101, 102, 113

SUDS 288 **1-15 credits**

Cooperative Work Experience

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

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

SUDS 299 **1-10 credits**

Independent Study

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

Prerequisites: By Instructor Permission only.

Technology Education (TECH)

TECH 100 **5 credits**

Advanced Principles of Technology

REEL

Provides hands-on study of energy, power, and force transformers in mechanical, fluid, electrical and thermal energy systems. Includes a review of force, work, rate, and resistance. Students will learn through a combination of lab experiments and discussion of the physics and math related to each energy system. The application in industry of various concepts is also explored.

Prerequisite: One year of high school principles of technology (certificate from instructor required) or MATH 106 or higher.

TECH 288 **1-15 credits**

Cooperative Work Experience

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

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

TECH 299 **1-10 credits**

Independent Study

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

Prerequisites: By instructor permission only.

Welding (WELD)

WELD 105 **S,F,W,Sp** **1-6 credits**

Related Welding

REEL

Presents the fundamentals of welding and cutting processes. Covers safe operation of selected power tools and equipment used in the metal trades. Designed for students in certificates and degrees in the vocational fields other than welding.

Prerequisites: None

WELD 141 S,F,W,Sp 1-10 credits
SMAW - Stick Welding with
E7018 REEL

Presents the fundamentals of stick welding of mild steel with 7018 electrodes, in all welding positions for numerous weld joints. Explains the fundamentals of the carbon arc, oxy-fuel, and plasma arc cutting processes. Explores key welding and fitting techniques through project-based print reading. Covers selected cutting processes and equipment used in the metal trades. This is the first course recommended for students seeking a welding certificate or degree.

Prerequisite: None

WELD 142 S,F,W,Sp 1-10 credits
Advanced SMAW - WABO REEL

Expands on the fundamentals of stick welding of mild steel with 7018 electrodes. Students work towards a 2-position WABO plate certification weld test on 1-inch plate. Emphasizes competency in the stick welding process by following blueprints to complete real-world projects. Second course recommended for students seeking a welding degree (not necessary for welding certificate).

Prerequisites: WELD 141 or Instructor Permission

WELD 143 S,F,W,Sp 1-10 credits
SMAW - Stick Welding with
E6010 REEL

Presents the fundamentals of stick welding of mild steel with 6010 electrodes in all welding positions for numerous weld joints. Explores key welding and fitting techniques through project-based print reading. Covers selected cutting processes and equipment used in the metal trades. Third course recommended for students seeking a welding degree (not necessary for welding certificate).

Prerequisites: WELD 142 or Instructor Permission

WELD 158 W 5 credits
Welding Theory and Fabrication REEL

Covers theoretical and practical applications of welding processes and metal fabrication. Work on project is required outside of class.

Prerequisite: WELD 141 or instructor permission

WELD 241 S,F,W,Sp 1-10 credits
FCAW-G - Dual Shield Wire Feed
Welding with E71T-1 REEL

Presents the fundamentals of wire feed welding of mild steel with E71T-1 dual shield 0.045-inch electrode wire in all welding positions for numerous weld joints. Explores key welding and fitting techniques through project-based print reading. Covers selected cutting processes and equipment used in the metal trades. Fourth course recommended for students seeking a welding degree OR the second course for welding certificate.

Prerequisites: None

WELD 242 S,F,W,Sp 1-6 credits
Advanced FCAW-G - WABO REEL

Expands on knowledge and skills of wire feed welding of mild steel with E71T-1 dual shield 0.045" electrode wire in all welding positions for numerous weld joints. Prepares for 2-position WABO plate certification weld test on 1" plate. Expands on key welding and fitting techniques through project-based print reading. Fifth course recommended for students seeking a welding degree (not necessary for welding certificate).

Prerequisites: WELD 241 or Instructor Permission

WELD 243 S,F,W,Sp 1-6 credits
GMAW - Solid Wire Feed Welding with
ER70S-6 and ER5356 REEL

Presents wire feed welding of mild steel with ER70S-6 solid 0.035" electrode wire and ER5356 aluminum in all welding positions for numerous weld joints. Expands on key welding and fitting techniques through project-based print reading. Presents selected cutting processes and equipment used in the metal trades. Sixth course recommended for students seeking a welding degree OR third course for welding certificate.

Prerequisite: WELD 241 or Instructor Permission

WELD 255 S,F,W,Sp 1-10 credits
GTAW - Tig Welding with ER70S-6 and
ER5356 REEL

Covers the fundamentals of tig welding of mild steel with ER70S-6 and aluminum welding with ER5356, in all welding positions for numerous weld joints. Explores key welding and fitting techniques through project-based print reading. Presents selected cutting processes and equipment used in the metal trades. Seventh and final course for students seeking a welding degree (course not necessary for welding certificate).

Prerequisites: None

WELD 288 S,F,W,Sp 1-15 credits
Cooperative Work Experience REEL

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

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

WELD 299 S,F,W,Sp 1-10 credits
Independent Study

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

Prerequisites: By instructor permission only.

WELD 60 F,W,Sp 1-6 credits
WABO Exam Preparation REEL

Provides focused studies toward advanced welding techniques in preparation for the WABO (Washington Association of Building Officials) welder certification test. This course is a prerequisite for WELD 070 and 075 (WABO test courses). Passing a WABO test is required for AAS degree in Welding. Prerequisites: Instructor permission required to enroll.

WELD 70 S,F,W,Sp 0 credit
Welding Certification (WABO Retest)

Provides WABO testers the opportunity to do a complete or partial retest if initial attempts to certify welds did not pass inspection. This course is a program requirement. Successful completion of the WABO certification exam is required for graduation.

Prerequisites: WELD 060 or Instructor permission

WELD 71 F 1 credit
Welding Support I

Introduces shop safety practices and common welding techniques for related curriculums. The common welding techniques addressed will include oxy/fuel cutting and brazing, and basic welding. Concurrent enrollment in WELD 105 required.

Prerequisite: None

WELD 72 W 1 credit
Welding Support II

Introduces shop safety practices and common welding techniques for related curriculums. The common welding techniques addressed will include oxy/fuel cutting and brazing, basic arc welding, and wire feed welding. Concurrent enrollment in WELD 105 required.

Prerequisite: None

WELD 75 0 credit
Welding Certification (WABO Exam)

Provides WABO testing with the following processes: SMAW, FCAW-S, FCAW-G, GMAW on plate, pipe, or light gauge materials. This course is a program requirement. Successful completion of the WABO certification exam is required for graduation.

Prerequisites: WELD 060 or Instructor permission

WorkFirst (WFC)

WFC 89 5 credits
Investigations Into Economic Class In America

Provides WorkFirst students a means of understanding individuals and society through the lens of economic class. A greater understanding of information about hidden rules and resources develops success skills and enables students to understand and operate effectively with diverse populations that are found within the college community and in the workplace.

Prerequisites: None.

WFC 99 S,F,W,Sp 1-12 credits
Integrated College Experience (ICE)

Integrated College Experience (ICE) is a WorkFirst Life Skills Core course designed to transition WorkFirst-qualified participants to classes at Lower Columbia College. This Washington State mandated component of WorkFirst consists of a twelve week module that provides participants with the skills to meet the demands of everyday life, education, and employment through performance and outcomes-based coursework that integrates communication, technology and basic skills.

Prerequisite: Must be enrolled in the WorkFirst program.

Youth Reengagement (YR)

YR 11 S,F,W,Sp 1-20 credits
Educational Interview

Develop and monitor a personal plan of action to reach personal, educational, and workplace goals through an orientation to the college community and the Transitional Studies program, resources, and services.

Prerequisites: CASAS test

YR 13 S,F,W,Sp 1-20 credits
Educational Interview II

Develop and monitor a personal plan of action to reach personal, educational, and workplace goals through an orientation to the college community and the CCP program, resources, and services.

Prerequisites: Casas completion

YR 15 S,F,W,Sp 1-20 credits
Educational Interview III

Develop and monitor a personal plan of action to reach personal, educational, and workplace goals through an orientation to the college community and the CCP program, resources, and services.

Prerequisites: CASAS test

YR 17 S,F,W,Sp 1-20 credits
Educational Interview IV

Develop and monitor a personal plan of action to reach personal, educational, and workplace goals through an orientation to the college community and the CCP program, resources, and services.

Prerequisites: CASAS Completion

YR 21 S,F,W,Sp 1-20 credits
I-BEST Support

A high adult secondary education level Open Doors course for students who are currently working or preparing to work in a specific job area and who are enrolled in an I-BEST program. The course integrates math, reading, writing, listening and speaking skills with the linguistic requirements of the job. The content of this course varies each time it is offered. It may include English language skills for specific content areas such as certification for childcare workers, English language skills for Health Services, etc.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236 and higher or instructor approval.

YR 23 S,F,W,Sp 1-20 credits
I-BEST Support II

A high adult secondary education level Open Doors course for students who are currently working or preparing to work in a specific job area and who are enrolled in an I-BEST program. The course integrates math, reading, writing, listening and speaking skills with the linguistic requirements of the job. The content of this course varies each time it is offered. It may include English language skills for specific content areas such as certification for childcare workers, English language skills for Health Services, etc.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236 and higher or instructor approval.

YR 25 S,F,W,Sp 1-20 credits
I-BEST Support III

A high adult secondary education level Open Doors course for students who are currently working or preparing to work in a specific job area and who are enrolled in an I-BEST program. The course integrates math, reading, writing, listening and speaking skills with the linguistic requirements of the job. The content of this course varies each time it is offered. It may include English language skills for specific content areas such as certification for childcare workers, English language skills for Health Services, etc.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236 and higher or instructor approval.

YR 27 S,F,W,Sp 1-20 credits
I-BEST Support IV

A high adult secondary education level Open Doors course for students who are currently working or preparing to work in a specific job area and who are enrolled in an I-BEST program. The course integrates math, reading, writing, listening and speaking skills with the linguistic requirements of the job. The content of this course varies each time it is offered. It may include English language skills for specific content areas such as certification for childcare workers, English language skills for Health Services, etc. Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236 and higher or instructor approval.

YR 30 S,F,W,Sp 1-20 credits
CCP Spanish Culture and Language

Develop basic communication abilities in Spanish. Provide an opportunity for learning about other Spanish speaking cultures. Students practice both speaking and writing with classmates and Native Spanish speakers. Compares and contrasts Latin American and American cultures.

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

YR 31 S,F,W,Sp 1-20 credits
CCP English 098

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 246 and higher

YR 32 S,F,W,Sp 1-20 credits
CCP Math Level B

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

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

YR 33 S,F,W,Sp 1-20 credits
CCP Lab Science

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

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

YR 34 S,F,W,Sp 1-20 credits
CCP Civics

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

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

**YR 37 S,F,W,Sp 1-20 credits
CCP COLL 101**

Explores foundational issues for success in college, including an introduction to campus resources, college culture, and digital communication skills. Develops behaviors and attitudes characteristic of successful students; develops basic reading, study, and test-taking strategies; and creates a plan for success during the next quarter and beyond. Identifies and assesses individual strengths, skills, and characteristics in order to create personal, academic, and career goals; explore and research possible career pathways to achieve goals.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236 and higher or instructor approval.

**YR 40 S,F,W,Sp 1-20 credits
CCP Electives**

Strengthen basic academic skills in order to enhance their personal, social, and workplace environments in a Youth Reengagement Electives course.

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

**YR 41 S,F,W,Sp 1-20 credits
CCP English**

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

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

**YR 43 S,F,W,Sp 1-20 credits
CCP Science**

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

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

**YR 44 S,F,W,Sp 1-20 credits
CCP US History**

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

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

**YR 45 S,F,W,Sp 1-20 credits
CCP Washington State History**

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

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

YR 46 S,F,W,Sp 1-20 credits
CCP Current World History

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

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

YR 47 S,F,W,Sp 1-20 credits
CCP Occupational

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

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

YR 48 S,F,W,Sp 1-20 credits
CCP Health and PE

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

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

YR 49 S,F,W,Sp 1-20 credits
CCP Fine Arts

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

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

YR 51 S,F,W,Sp 1-20 credits
Contextualized Integrated Eng & Math

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high adult secondary education integrated course (integrating reading, writing, math, and technology).

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 246 and higher or instructor approval

YR 53 S,F,W,Sp 1-20 credits
Contextualized Integrated Eng & Math II

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high adult secondary education integrated course (integrating reading, writing, math, and technology).

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 246 and higher

YR 55 S,F,W,Sp 1-20 credits
Contextualized Integrated Eng & Math III

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high adult secondary education integrated course (integrating reading, writing, math, and technology).

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 246 and higher or instructor approval

YR 57 S,F,W,Sp 1-20 credits
Contextualized Integrated Eng & Math IV

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high adult secondary education integrated course (integrating reading, writing, math, and technology).

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 246 and higher

YR 71 S,F,W,Sp 1-20 credits
Contextualized English

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 236-245

YR 73 S,F,W,Sp 1-20 credits
Contextualized English II

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 236-245

YR 75 S,F,W,Sp 1-20 credits
Contextualized English III

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 236-245

YR 77 S,F,W,Sp 1-20 credits
Contextualized English IV

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 236-245

YR 79 S,F,W,Sp 1-20 credits
CCP Math 79/Level C

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high intermediate math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 221-235 or instructor approval

YR 81 S,F,W,Sp 1-20 credits
Pre-College English

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 246 and higher or instructor approval

YR 83 S,F,W,Sp 1-20 credits
Pre-College English II

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 246 and higher or instructor approval

YR 85 S,F,W,Sp 1-20 credits
Pre-College English III

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 246 and higher or instructor approval

YR 87 S,F,W,Sp 1-20 credits
Pre-College English IV

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 246 and higher or instructor approval

YR 88 S,F,W,Sp 1-20 credits
CCP Math 88/Level D

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a low adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236-245 or instructor approval

YR 97 S,F,W,Sp 1-20 credits
CCP Math 97/D Enhanced

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236-245 or instructor approval

YR 98 S,F,W,Sp 1-20 credits
CCP Math 98/Level E

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 246 and higher or instructor approval

YRNG 61 S,F,W,Sp 1-20 credits
CCP Math Level B

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

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 201-220

YRNG 63 S,F,W,Sp 1-20 credits
CCP Math Level B II

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

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 201-220

**YRNG 65 S,F,W,Sp 1-20 credits
CCP Math Level B III**

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

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 201-220

**YRNG 67 S,F,W,Sp 1-20 credits
CCP Math Level B IV**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 246 and higher

**YRNG 71 S,F,W,Sp 1-20 credits
CCP Math 78/Level C**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high intermediate math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 221-235

**YRNG 73 S,F,W,Sp 1-20 credits
CCP Math 78/Level C II**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high intermediate math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 221-235

**YRNG 75 S,F,W,Sp 1-20 credits
CCP Math 78/Level C III**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high intermediate math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 221-235

**YRNG 77 S,F,W,Sp 1-20 credits
CCP Math 78/Level C IV**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high intermediate math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 221-235

**YRNG 81 S,F,W,Sp 1-20 credits
CCP Math 88/Level D**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a low adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236-245

**YRNG 82 S,F,W,Sp 1-20 credits
CCP Math 87/D Enhanced**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a low adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236-245

**YRNG 83 S,F,W,Sp 1-20 credits
CCP Math 88/Level D II**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a low adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236-245 or instructor approval

**YRNG 84 S,F,W,Sp 1-20 credits
CCP Math 87/D Enhanced II**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a low adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236-245

**YRNG 85 S,F,W,Sp 1-20 credits
CCP Math 88/Level D III**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a low adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236-245 or instructor approval

**YRNG 86 S,F,W,Sp 1-20 credits
CCP Math 87/D Enhanced III**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a low adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236-245

**YRNG 87 S,F,W,Sp 1-20 credits
CCP Math 88/Level D IV**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a low adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236-245 or instructor approval

**YRNG 88 S,F,W,Sp 1-20 credits
CCP Math 87/D enhanced IV**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a low adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 236-245

**YRNG 91 S,F,W,Sp 1-20 credits
CCP Math 98/Level E**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 246 and higher

**YRNG 93 S,F,W,Sp 1-20 credits
CCP Math 98/Level E II**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 246 and higher

**YRNG 95 S,F,W,Sp 1-20 credits
CCP Math 98/Level E III**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 246 and higher

**YRNG 97 S,F,W,Sp 1-20 credits
CCP Math 98/Level E IV**

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a high adult secondary education math course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 246 and higher

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Jeanne Clery Statement: Notice of Availability of Annual Security and Fire Safety Report: In compliance with the Jeanne Clery Disclosure of Campus Security Policy and Crime Statistics Act of 1998, and as a part of the College's commitment to safety and security on campus, Lower Columbia College reports the mandated information about current campus policies concerning safety and security issues, the required statistics, and other related information for the past three (3) calendar years. Lower Columbia College's **Annual Security and Fire Safety Report** is available online at lowercolumbia.edu/CleryASFR.