LOWER COLUMBIA COLLEGE

2025-26 CATALOG

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Student Information

New students are encouraged to learn more about getting started at LCC by visiting the One-Stop Center webpage (lowercolumbia.edu/one-stop) for important admissions and enrollment information.

Apply for Admission Today! (lowercolumbia.edu/apply)

Academic Calendar

Summer Quarter 2025

First day of classes: July 1
Fourth of July holiday: July 4
Last day of classes: August 21
Final exams: last day of class
Quarter break: August 22-September 19*

Fall Quarter 2025

First day of classes: September 22
Veterans Day holiday: November 11
Thanksgiving holiday: November 27
Native American Heritage holiday: November 28
Last day of classes: December 5
Final exams: December 8-11
Quarter break: December 12-January 2*

Winter Quarter 2026

First day of classes: January 5
MLK Day holiday: January 19
Presidents' Day holiday: February 16
Last day of classes: March 13
Final exams: March 16-19
Quarter break: March 20-April 3*

Spring Quarter 2026

First day of classes: April 6
Memorial Day holiday: May 25
Last day of classes: June 12
Final exams: June 15-17
Commencement: June 18
Juneteenth holiday: June 19
Quarter break: June 19-July 3*

Summer Quarter 2026

Fourth of July holiday: July 3
First day of classes: July 6
Last day of classes: August 27
Final exams: last day of class
Quarter break: August 28-September 18*

Fall Quarter 2026

First day of classes: September 21
Veterans Day holiday: November 11
Thanksgiving holiday: November 26
Native American Heritage holiday: November 27
Last day of classes: December 4
Final exams: December 7-10
Quarter break: December 11-January 1*

Winter Quarter 2027

First day of classes: January 4
MLK Day holiday: January 198
Presidents' Day holiday: February 15
Last day of classes: March 12
Final exams: March 15-18
Quarter break: March 19-April 2*

Spring Quarter 2027

First day of classes: April 5
Memorial Day holiday: May 31
Last day of classes: June 11
Final exams: June 14-16
Commencement: June 17
Juneteenth holiday: June 17
Quarter break: June 21-July 2*

See also: online Academic Calendar (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

It's easy to get into Lower Columbia College!

You don't need to pay any fees, write essays, or take tests for general admission. Just fill out a short online form to get started.

Some programs have extra steps. These include Nursing (lowercolumbia.edu/programs/health/nursing) , Medical Assisting (lowercolumbia.edu/programs/health/medical-assisting) , and the Bachelor of Applied Science (BAS) programs (lowercolumbia.edu/bas) . You still need to fill out the general admission form, but you'll also need to apply to those programs separately and follow their directions.

Want help or more information? Apply now (lowercolumbia.edu/apply) , or visit the One-Stop Center (lowercolumbia.edu/one-stop) in the Admissions Center Building (ADC) during open hours. See below for contact details and other important info.

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

Advising

New students at LCC take part in a New Student Advising (NSA) session to help them get started. Before the session, students need to apply to LCC and complete placement. During the NSA session, students meet with their advisor, talk about their goals, and sign up for classes.

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

High School and Younger (Special Admissions)

High school students can take classes at LCC if their high school principal and an LCC counselor approve, or by joining the Running Start program.

If a student is younger than high school age and wants to attend LCC, they should talk to the Director of Registration to learn how to apply.

See below for contact details and other important info.

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 all over the world!

You can apply at any time for fall, winter, spring, or summer classes. To get started, new international students must fill out the International Student Application Form and send in other required papers. You can find more details about how to apply (lowercolumbia.edu/apply) on our website.

International students must take at least 12 credits each term and get good grades to keep their F-1 visa. They must also pay for classes and fees by the due dates.

Health insurance and repatriation coverage are also required and must be paid for each year.

See below for contact information and other important details.

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 helps students with admissions, financial aid, class registration, placement, and general questions about getting started at LCC.

If you're a returning student, you can ask for your program advisor's information at the One-Stop Center.

See below for contact details and other helpful information.

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

Placement

If you want to earn a degree, certificate, or transfer to a university, you need to complete a placement process before signing up for classes.

LCC uses different ways to figure out which math and English classes are best for you. You will get your placement results and class suggestions right after finishing the placement. Advisors will use this information to help you choose your classes.

You must follow the placement advice, but you can talk to our Testing staff about options for higher placement.

Other things we use to help place you in the right classes may include:

- Completed college classes
- High school GPA
- Smarter Balanced test
- High School Transfer Agreements (HSTA)
- GED
- SAT
- College and Career Prep classes
- Directed Self-Placement

See below for contact details and more 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 will sign up for classes when they meet with their advisor. For future quarters, students can register online after meeting with their advisor. You can find registration dates and deadlines (lowercolumbia.edu/calendar/academic) on the LCC website.

Students who are close to finishing their degree or certificate and who have met with their advisor get to register first. Newer students register after them. Some classes fill up fast, so it's a good idea to talk with your advisor about backup options.

Veterans and their dependents can register early if they qualify. Students with approved disability accommodations can also register early.

To register for classes and do other college-related things online, students use the ctcLink system (wa130.ctclink.us) . You'll need a ctcLink ID number and a password. You'll get instructions on how to set up your ctcLink account in your welcome letter after your application is processed.

Each quarter, students meet with their advisor before registering. After your meeting, your advisor will remove the

"advising hold" so you can sign up for classes in ctcLink.

If you were placed in the wrong English or Math class, contact the Testing Center (lowercolumbia.edu/testing-center#contact) right away to fix it.

See below for contact details and more helpful 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.
- **Important 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 can drop (withdraw from) one or more classes until the ***Friday of the 8th week*** in fall, winter, and spring quarters. For classes shorter than 10 weeks, including summer classes, students must drop the class ***before 80% of the class is completed***.

To drop a class, go online to ctcLink (wa130.ctclink.us) or contact the Registration Office **in writing** before 11:59 PM on the last day to withdraw. If you stop going to class but don't officially drop it, you will stay on the class list and get a grade.

Before dropping a class, it's a good idea to talk to your instructor, your advisor, and the Financial Aid Office to see how it may affect your financial aid or graduation plans.

If you miss the deadline to withdraw, you may still be able to drop a class by sending a request to approve the withdrawal to the Academic Standards Committee (lowercolumbia.edu/registration/academic-standards) . You must show proof (like a doctor's note) that an emergency outside your control stopped you from withdrawing on time.

You can drop a class without getting a "W" grade until the 10th day of the quarter for fall, winter, and spring. For shorter classes, you must drop before 20% of the class is over to avoid a "W."

If you are suspected of cheating, you cannot drop the class to avoid consequences until the issue is resolved.

If you do not attend class or contact the instructor during the first 5 days of the quarter, you might be dropped from the class.

Students are responsible for knowing how dropping a class affects their financial aid. Check the Student Financial Responsibilities page (lowercolumbia.edu/pay-for-college/financial-aid/maintain-eligibility) or visit the Financial Aid Office (lowercolumbia.edu/pay-for-college/financial-aid) for more help.

See the LCC Student Handbook (lowercolumbia.edu/publications/student-handbook) for more information about adding and dropping classes.

See below for contact info and other helpful details.

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

American Opportunity Tax Credit

Educational Tax Credits

There are educational tax credits available to students with qualifying expenses. These tax credits include the American Opportunity Tax Credit and the Lifetime Learning Credit.

Depending on individual circumstances, these educational credits may not be the most advantageous tax option for all families with higher education expenses.

More information can be found about tax credits on our Tax Credit webpage (lowercolumbia.edu/tax-credit) and on the IRS educational tax credit page (www.irs.gov/credits-deductions/individuals/education-credits-aotc-llc) .

Assurances

Selected programs of study at Lower Columbia College are approved by the Workforce Training and Education Coordinating Board's State Approving Agency (WTB/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:

- Provide a Certificate of Eligibility by the first day of class (a “certificate of eligibility” can also include a “Statement of Benefits” obtained from the Department of Veterans Affairs’ (VA) website – eBenefits for Chapter 33 or VA VR&E’s contract with the school on VA Form 28-1905 for Chapter 31);
- Provide a written request to be certified;
- Provide additional information needed to properly certify the enrollment as described in other institutional policies.

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.

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 clearly and appropriately for the audience, context, purpose, and medium.

A. Students will communicate effectively within the conventions of the chosen medium(s) to enhance audience engagement and understanding.
B. Students will make choices appropriate to the intended audience, purpose, and context.
C. Students will develop and express their ideas for a unified purpose.
D. Students will develop, organize, and express their ideas clearly and thoroughly.
E. Students will support arguments, insights, analysis, and/or conclusions with relevant and credible evidence, examples, explanations, statistics, analogies, testimony, and/or reasoning appropriate to the audience, context, purpose, and medium.

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.

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.
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).

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.

Student Handbook

Published alongside the LCC Catalog, the Student Handbook (lowercolumbia.edu/publications/student-handbook) is a comprehensive resource for students covering academic policies, conduct codes, campus resources, and legal rights.

The handbook details policies that promote academic success, fairness, personal conduct, campus safety, and inclusivity. It empowers students with the necessary procedural knowledge for registration, classroom expectations, financial responsibilities, and disciplinary matters, ensuring an equitable and well-regulated learning environment.

Key topics in the handbook include access to the 1099-T tax form, address-change procedures, commencement application deadlines, and campus-closure protocols.

The handbook contains Academic Protocols, including:

- Dishonesty & Grievance: Defines expectations around plagiarism, cheating, and academic honesty, with procedures for grievance and appeal.
- Academic Standing/Enrollment: Outlines the processes for adding and dropping classes, probation standards, and course withdrawal rules.

LCC's Student Conduct Code is included in the handbook. Based on Washington WAC 132M-126, the Student Conduct Code outlines expectations for integrity and respect, provides definitions, prohibits certain behaviors, describes Title IX procedures, and details the discipline process for violations of the code.

Legal and safety policies, such as those governing the responsible use of academic materials, are also included.

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.

Non-Discrimination and Anti-Harassment Information

Lower Columbia College does not discriminate on the basis of sex and prohibits sex discrimination in any education program or activity that it operates, as required by Title IX, including in admission and employment. 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, 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. All inquiries regarding compliance with Title IX, access, equal opportunity and/or grievance procedures should be directed to Vice President of Foundation, HR & Legal Affairs, 1600 Maple Street, PO Box 3010, Longview, WA 98632, title9@lowercolumbia.edu, Phone number, (360) 442-2120, Phone number/TTY (800) 833-6388. The notice of nondiscrimination is located at https://lowercolumbia.edu/disclosure/non-discrimination/.

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.

How to Pay for College

Your college education is one of the biggest investments you will make! This section will help you understand the cost of your education at Lower Columbia College, and how to pay for it. Visit our How to Pay for College webpage (lowercolumbia.edu/pay-for-college) to learn more.

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, which is called Cost of Attendance (lowercolumbia.edu/pay-for-college/tuition) .

Who is eligible for financial aid?

There are both state, federal, and private financial aid resources.

If you are a U.S. Citizen or Permanent Resident, you can apply for federal and state financial aid using the Free Application for Federal Student Aid (FAFSA) (studentaid.gov/h/apply-for-aid/fafsa) . Washington residents who have lived in the state for at least a year and face barriers to completing the FAFSA—such as immigration status or issues with federal aid—may still qualify for state financial aid by submitting the Washington Application for State Financial Aid (WASFA) (wsac.wa.gov/wasfa) .

Both federal and state financial aid applications must be submitted annually. The aid award year runs from July 1st to June 30th each year.

More information is available about the financial aid application process on LCC's Learn About Financial Aid webpage (lowercolumbia.edu/pay-for-college/financial-aid/learn) .

What types financial aid are available?

Grants

Grants (lowercolumbia.edu/pay-for-college/financial-aid/learn) 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 (lowercolumbia.edu/pay-for-college/student-financial-help/workforce-education/passport-foster-youth) , Early Achievers Grant (www.sbctc.edu/paying-for-college/early-achievers-student-grant) , and Opportunity Grant (lowercolumbia.edu/pay-for-college/student-financial-help/workforce-education/opportunity-grant) . Other grant resources administered through LCC's Workforce Education programs include Worker Retraining (lowercolumbia.edu/pay-for-college/student-financial-help/workforce-education/worker-retraining) and Basic Food Employment Training (BFET) (lowercolumbia.edu/pay-for-college/student-financial-help/workforce-education/bfet) .

Work-Study Employment

Students can request a work-study job (lowercolumbia.edu/careerservices/job-search/student-employment) as part of their Financial Aid award. Once a student's eligibility is determined, the students may work on or off campus for up to 19 hours a week while attending school. LCC participates in the federal, state, and VA work-study programs. A limited number of student help jobs are also available.

Loans

LCC offers Federal Direct and Federal Parent (PLUS) loans (lowercolumbia.edu/pay-for-college/financial-aid/learn) up to the cost of attendance for the student. The maximum loan amount awarded depends on student need, dependent status, and year in college.

Students must complete a Direct Loan Worksheet (see Financial Aid Forms (lowercolumbia.edu/pay-for-college/financial-aid/forms)) to notify LCC that a loan is requested along with Entrance Counseling (studentaid.gov/entrance-counseling/) , an iGrad course (lowercolumbia.edu/pay-for-college/financial-literacy) and a Master Promissory Note (MPN) (studentaid.gov/mpn/) .

Parent PLUS loan applicants will complete the Parent PLUS Loan Worksheet (see Financial Aid Forms (lowercolumbia.edu/pay-for-college/financial-aid/forms)) and a PLUS Master Promissory Note (PLUS MPN) (studentaid.gov/mpn/) .

Scholarships

LCC offers multiple scholarship (lowercolumbia.edu/pay-for-college/scholarships) resources for students. The LCC Foundation provides an online application system for students to apply for multiple scholarships with a single application. Award amounts vary, and applications are typically completed during spring quarter for the upcoming academic year.

LCC also provides information on outside scholarships (lowercolumbia.edu/pay-for-college/scholarships/outside) from local community organizations.

Veterans

Students who want to use their VA Education Benefits and military Tuition Assistance to pursue an LCC eligible program (inquiry.vba.va.gov/weamspub/buildViewProgramTypes.do) can request assistance with enrolling from the school's School Certifying Official (SCO). Veterans or their Dependents will need to provide a Certificate of Eligibility and complete a few other forms to allow the SCO to certify their benefit to the VA for processing. More information on these requirements can be viewed on the LCC Veterans webpage (lowercolumbia.edu/veterans/apply-for-benefits) .

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:

- Provide a Certificate of Eligibility by the first day of class (a "certificate of eligibility" can also include a "Statement of Benefits" obtained from the Department of Veterans Affairs' (VA) website – eBenefits for Chapter 33 or VA VR&E's contract with the school on VA Form 28-1905 for Chapter 31);
- Provide a written request to be certified;
- Provide additional information needed to properly certify the enrollment as described in other institutional policies.

For any student using VA Education Benefits in a course offered via the "Flexible, face-to-face (F2F) or online" modality, the School Certifying Official (SCO) will confirm with the instructor of record when the student has chosen to take part of the course in-person. Once the student's in-person attendance

has been verified, the SCO will ensure the course has been correctly certified to the VA.

Please note: Students receiving Monthly Housing Allowance (MHA) must attend at least one class in person to receive their full MHA. MHA is based on the percentage of Post-9/11 GI Bill® benefits and the number of credits a student is taking during the enrollment period. A student taking fully online classes will be paid equal to half the national average for MHA. For more information and other exclusions, see Post-9/11 GI Bill® (Chapter 33) (www.va.gov/education/about-gi-bill-benefits/post-9-11/#how-does-va-determine-my-month) .

Veterans, who are residents of Washington State may qualify for a tuition waiver for up to 25% of the in-state tuition rate. Eligibility criteria can be found on the Veteran Tuition Waiver form (see Financial Aid Forms (lowercolumbia.edu/pay-for-college/financial-aid/forms)).

A veteran's dependent, who is a resident of Washington State may qualify for 100% tuition waiver of the in-state tuition rate. Eligibility criteria can be found on the Veteran's Dependent Tuition Waiver form (see Financial Aid Forms (lowercolumbia.edu/pay-for-college/financial-aid/forms)).

For assistance with completing any part of the application or enrollment process at LCC, contact the SCO or come to the Admissions building to the One-Stop Center (lowercolumbia.edu/one-stop) to meet with someone in person.

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government Web site at http://www.benefits.va.gov/gibill.

How to apply for financial aid

Students apply for financial aid through an online application. Staff at the One-Stop Center (lowercolumbia.edu/one-stop) are available to assist students in completing the application over the phone, in-person, or via Zoom (lowercolumbia.edu/onestopzoom) . Computers are also available for student's use in the Admissions Center.

Priority deadlines (lowercolumbia.edu/pay-for-college/financial-aid) are set for each quarter to allow 3-6 weeks for an application to be processed prior to the start of the quarter. Any applications submitted past the priority date will be processed as quickly as possible, but the student may not have aid disbursed prior to the start of the quarter.

How to know if financial aid is awarded

Students will be notified of any financial aid awards through ctcLink (lowercolumbia.edu/pay-for-college/financial-aid/portal) . In ctcLink, students can view and update (if applicable) their financial aid awards by going to the 'Student Center' and selecting "View Financial Aid". When a student applies for financial aid and registers for classes, it is assumed they are accepting the financial aid grant awards. Students who request loans will need to accept them in ctcLink once offered after the Direct Loan Worksheet request has been processed.

Students who decide not to attend LCC must notify Financial Aid to cancel their award by Friday of the first week of classes. Students 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 (lowercolumbia.edu/pay-for-college/financial-aid/maintain-eligibility) 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 when placed on Financial Aid Suspension.

If financial aid eligibility is suspended at LCC, a student may request to have their financial aid eligibility reinstated (lowercolumbia.edu/pay-for-college/financial-aid/maintain-eligibility) . Student can submit a Financial Aid – SAP Appeal (see Financial Aid Forms (lowercolumbia.edu/pay-for-college/financial-aid/forms)) to the Financial Aid Office requesting reinstatement. Student can also self-reinstate by completing a minimum of 5 additional credits successfully and self-paying the tuition and fees or using a non-financial aid resource (such as a scholarship or third-party funding).

Additional Contact Information and Webpages

Financial Aid: (360) 442-2390
https://lowercolumbia.edu/financial-aid

Veteran Contact: (360) 442-2611
https://lowercolumbia.edu/veterans/apply-for-benefits/

One-Stop Center: (360) 442-2233
https://lowercolumbia.edu/one-stop/

Forms: https://lowercolumbia.edu/financial-aid/forms/

ctcLink Information:
https://lowercolumbia.edu/pay-for-college/financial-aid/portal/

Located in Admissions Center (ADC)

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 (lowercolumbia.edu/ctcLink/student-training) are available on the LCC website.

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/pay-for-college/payment-options/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)

Tuition, Fees and Residency Classifications

Tuition

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

Current tuition rates (lowercolumbia.edu/pay-for-college/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 (lowercolumbia.edu/pay-for-college/tuition) 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/pay-for-college/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)

About 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 4,000 students each year.

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 accredition 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.

- The Automotive Technology program has Master Automobile Service Technology Accreditation from the Automotive Service Excellence Education Foundation.

Board of Trustees

Marc Silva, Chair, appointed March 2022
Branch Manager, Red Canoe Credit Union (Longview branch).

Bogyeong Kim, Vice Chair, appointed January 2023
Former English teacher in South Korea.

Alice Dietz, appointed October 2018
Public Relations Manager at Cowlitz PUD; former Director of Programs at Cowlitz Economic Development Council.

Michael Karnofski, appointed June 2020
Kelso City Council Member; former County Commissioner.

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

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 2023-24, LCC's student-faculty ratio was 12.83 for all students, and 10.40 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)

Faculty and Administration at LCC

Administration

President

Charles (Matt) Seimears, Ph.D (2024), President
B.S., Pittsburg State University; B.S., Newman University; M.Ed., Wichita State University; Ph.D., Kansas State University

Vice Presidents

Kristen Finnel, Ed.D. (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

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

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

Michaela Jackson (2001), Interim Dean of Education, New Program Development & Educational Partnerships
A.A., Lower Columbia College; B.A., Eastern Washington University; M. Ed., Concordia University

Department Directors

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

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

Marco Azurdia (2025), Executive Director of NWAC
B.A., Simpson College; M.A., St. Mary's College

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

Iain Dexter (2025), Director NWAC Communications
B.A., Western Oregon 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

Deanna (Andie) Ingram (2024), Director of International Student Programs
B.A., Whitworth University

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

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

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

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

Donna Myers (2024), Director of Outreach Services
B.S., University of Delaware; M.Ed., Wilmington University

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

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

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

Angela (Angie) Rogers (2013), Director of Institutional Research
A.A., Lower Columbia College; B.A., Washington State University

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

Daniel (Dan) Ruiz (2024), Executive Director of Diversity, Equity, and Inclusion, Student Housing & Programming (DEI-SPH)
B.S., Boise State University; M.S., Brigham Young University; M.H.A., University of North Carolina at Charlotte

Angel Ruvalcaba (2013), Director of Advising, One-Stop, & Testing
A.A., Clark College; B.S., Washington 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

Rheannon Van de Voorde (2021), Director of College & Career Preparation
B.A., Washington State University; M.A., University of Portland

David Wallis (2024), Director of Information Technology Services
B.A., Western Washington University

Alexandra (Alli) Young (2025), Director of NWAC Operations
A.A., Walla Walla Community College; B.A., University of Maine; M.S., Seattle University

Full Time Faculty (Tenured and Tenure-Track)

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

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

Lori Babbick (2024), Mathematics
A.A., Lower Columbia College; B.A. and M.S., Washington 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 (Kim) Beebe (2022), Communications Studies
B.A., M.A., Oregon State University

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

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

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

Austin Bosgraaf, Ph.D. (2025), Mathematics
A.S., Butler County Community College; B.S., M.S., Wichita State University; Ph.D., Oregon State University

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

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

Sarah Bustamante (2025), Education
B.A., M.A., Pacific 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

Naser Chowdhury (2025), Computer Science
B.S., Khulna University of Engineering and Technology; M.S., Boise State University

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

Julianna Crisman (2024), Nursing
A.A.S., Lower Columbia College; B.S.N. and D.S.N., Washington State 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 (Rob) Davis, Ph.D. (2012), Instrumental Music
B.M., M.M., Brigham Young University; D.M.A., University of Southern California

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

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

Firaol Fekadu (2024), Engineering
B.S., Purdue University; M.S., University of Colorado Boulder

James (Jim) 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, Ph.D (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

Joshua Hanson (2025), Automation, Instrumentation, & Robotics (AIR) Apprenticeship Program, Lane Community College; Instrumentation & Industrial Automation Certificate, Perry Technical Institute

Kathryn (Kat) Harlan (2025), Bachelor of Science - OLTM
B.S., University of Portland; M.B.A., Hawai'i Pacific University; M.A., Gonzaga University

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

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

Jones Kasonso, Ph.D (2024), Accounting
A.A., Zambia Institute of Chartered Accountants; B.A., Oxford Brookes University; M.B.A., Keller Graduate School of Management; Ph.D., Northcentral University

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

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

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

Fox 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

Keith (Sunny) Liston, D.B.A. (2024), Business
M.B.A. and M.S., Golden Gate University; D.B.A., University of Phoenix

Peteris (Pete) 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

Emmeline (Emme) McCarthy (2023), Counseling
A.A., Lower Columbia College; B.A., University of Washington; M.S.W., Eastern Washington University

Michael Morris (2024), Diesel/Heavy Equipment Technology
A.A., Lower Columbia College

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

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

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

Morgan Stierman (2023), Language and Literature
B.S. and M.A., University of Hawaii

Corey Strand (2024), Nursing
A.A.S., Lower Columbia College; B.S.N., Grand Canyon University; M.S.N., Purdue University Global

Richard (Rick) 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

Michal-Ann Ure (2008), College and Career Preparation
A.A., Lower Columbia College; B.S., Saint Martin's University; M.Ed., University of Phoenix

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

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

Adam 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

Sarah Willoughby (2025), Spanish
B.A., M.A., University of Hawai'i

Kiersten Wolfe (2024), Nursing
A.A.S., Lower Columbia College; B.S.N., M.S.N., Western Governors 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

Name	Date Conferred
Dr. Pete Pickett, President Emeritus	June 1997
Dr. Donald Fuller, Dean Emeritus	June 1998
Mr. Hilmar Kuebel, Dean Emeritus	May 1999
Mr. Bruce Cardwell, Trustee Emeritus	June 2000
Mr. Gary Healea, Trustee Emeritus	May 2005
Dr. Kurtz Carpenter, Faculty Emeritus	May 2005

Name	Date Conferred
Mr. Lionel Livermore, Faculty Emeritus	May 2005
Ms. Carol McNair, Faculty Emeritus	April 2006
Ms. Judith Irwin, Faculty Emeritus	April 2006
Ms. Ann Mottet, Trustee Emeritus	June 2006
Dr. Clint Benjamin	May 2008
Mrs. Evelyn Boyd, Faculty Emeritus	April 2009
Mr. Lyle Lovingfoss, Trustee Emeritus	November 2009
Ms. Kathy Demarest, Faculty Emeritus	January 2010
Ms. Mary Harding, Vice President Emeritus	June 2010
Ms. Mary Stone, Faculty Emeritus	April 2011
Ms. Helen Kuebel, Dean Emeritus	June 2011
Dr. James L. McLaughlin	June 2011
Mr. Michael Dugaw, Faculty Emeritus	December 2011
Mr. George Dennis, Faculty Emeritus	December 2011
Mr. Richard Kelly, Faculty Emeritus	December 2011
Mr. Jerry Zimmerman	December 2013
Ms. Kathy Meier	November 2014
Mr. Don Correll	May 2017
Mr. Dave Cordero	May 2017
Ms. Darlene DeVida	May 2017
Ms. Sharon Layton	May 2017
Mr. Joel Schaaf	May 2017
Mr. Mark Bergeson	April 2018
Mr. Joe Green	December 2018
Mrs. Rhonda Meyers, Faculty Emeritus	July 2020
Mr. David Benson, Faculty Emeritus	April 2021
Mr. Michael Strayer, Faculty Emeritus	April 2023
Mrs. Karen Joiner, Dean Emeritus	April 2023
Dr. David McCarthy	June 2024
Mrs. Ann Williamson	April 2025
Mr. Jim Stanley	April 2025

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 Education for Adults achievement
   - Academic performance of precollege 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
   - Completion
   - Student satisfaction with support services
   - Faculty-student engagement
   - Student satisfaction with instruction
   - Student sense of belonging

Institutional Excellence and Community Enrichment

1. Demonstrate our commitment to institutional integrity by investing in our campus, students and employees.
   - Employee satisfaction and morale
   - Condition of infrastructure
   - Employee demographics
   - Employee sense of belonging
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

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.

State Authorization Reciprocity Agreement (SARA)

Lower Columbia College is a participating member of the State Authorization Reciprocity Agreement (SARA).

SARA "is an agreement among member states, districts, and territories that establishes comparable national standards for interstate offerings of postsecondary distance education courses and programs. It is intended to make it easier for students to take online courses offered by postsecondary institutions based in another state. SARA is overseen by a national council and administered by four regional education compacts." (Washington Student Achievement Council Websitetrue (http://www.wsac.wa.gov/sara))

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
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 at least one year is eligible for grade forgiveness after completing at least 12 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. If a quarter includes a course that was used to satisfy a graduation requirement for a credential already conferred by LCC, that quarter is not eligible 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 a course to improve their skills, course grade, and cumulative grade point average (GPA). When a course is taken more than one time, the college excludes the lower grade(s) from GPA calculations and inserts a “Repeat” notation to each excluded grade on the transcript. These rules apply:

- Unless otherwise indicated in the college catalog, students may enroll in the same course no more than three times.
- The college may require students who attempt to take a course more than once to participate in student success interventions designed to help students progress towards completion of their academic goals, degrees, or certificates.
- Other colleges and universities may not recognize the course repeat indicator on transcripts. Students should verify the course repeat and transfer policies at other institutions they plan to attend.
- Students who retake a previously passed course more than once may become ineligible for federal or state financial aid. Students receiving VA education benefits may not be certified for, or receive compensation for, repeating a course they have previously passed.
- Course grades earned prior to Winter 2020 will not be excluded automatically from GPA calculation after the course is repeated. To exclude a grade earned prior to Winter 2020, students must submit a Grade Replacement Form to 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 (lowercolumbia.edu/credit-prior-learning/alt-options) 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 (lowercolumbia.edu/credit-prior-learning/alt-options) .

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 (lowercolumbia.edu/transcripts/transcript-eval-foreign) .

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 (lowercolumbia.edu/credit-prior-learning/alt-options) 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 (lowercolumbia.edu/credit-prior-learning/alt-options) 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 recommend 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 (lowercolumbia.edu/university-center/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 Student Privacy Policy Office 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:

Student Privacy Policy Office
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.

Commencement Honors

Graduates who earn a cumulative grade point average of 3.5 to 3.79 in the courses required for their program are awarded a degree with honors. Graduates who earn a 3.8 or above are awarded a degree with highest honors. The commencement program includes a notation of H (honors) or HH (highest honors) next to the graduate's name, and both groups are recognized with a gold cord to be worn with their regalia.

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 (lowercolumbia.edu/student-life/student-awards/outstanding-students) 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 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 All 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. Courses that meet this requirement may also be used toward other graduation requirements. LCC encourages development of curriculum that provides students with an understanding of and sensitivity to cultural differences by requiring courses requiring study of cultures other than their own.
- 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.

Application admissions deadlines vary among institutions, and students must meet the deadline for the university or universities to which they plan to apply for transfer admission.

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 although may not meet all individual institutional requirements.
- Completion of the DTA degree generally provides a student with a minimum of 90 quarter or 60 semester credits upon entry to a four-year institution.
- 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 or ENGL& 235, 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.

AA-DTA degree options are arranged by area of concentration in the Programs of

Study (lowercolumbia.edu/publications/catalog/programs) section of this catalog.

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 (lowercolumbia.edu/publications/catalog/programs) section of this 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.

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 ENGL 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; SUDS 102 or SUDS 215; HDEV 110; PSYC& 100; 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.

Bachelor's Degrees

Bachelor of Applied Science (BAS)

Admission to the BAS programs is selective and requires a separate application process. While meeting the minimum entrance requirements is essential, it does not guarantee admission. When the number of qualified applicants exceeds available enrollment spaces, a competitive admission process is implemented. Specific requirements for the BAS-OLTM (lowercolumbia.edu/bachelors-degrees/bas-oltm)

and BAS-TE (lowercolumbia.edu/bachelors-degrees/bas-te) degrees are located in the Programs of Study (lowercolumbia.edu/publications/catalog/programs) section of this catalog.

Bachelor of Science in Nursing (BSN)

Admission to the BSN program (lowercolumbia.edu/bachelors-degrees/bsn) is selective and requires a separate application process. While meeting the minimum entrance requirements is essential, it does not guarantee admission. When the number of qualified applicants exceeds available enrollment spaces, a competitive admission process is implemented. Specific requirements for the BSN are located in the Programs of Study (lowercolumbia.edu/publications/catalog/programs) section of this catalog.

Bachelor of Science in Computer Science (BSCS)

The Bachelor of Science (BS) degree is designed to prepare students for advanced study or professional careers in scientific, technical, or applied fields. BS programs emphasize critical thinking, quantitative reasoning, and discipline-specific expertise. Lower Columbia College offers a Bachelor of Science in Computer Science (BSCS) (lowercolumbia.edu/bachelors-degrees/bscs) . This 180-credit program prepares graduates to pursue careers in a wide variety of computing-related fields. The program is anchored with core courses that provide a solid foundation in both the theoretical and practical aspects of computer science. Students pursuing a BSCS degree at Lower Columbia College must meet general education distribution requirements in addition to program-specific coursework. Specific requirements for the BSCS are located in the Programs of Study (lowercolumbia.edu/publications/catalog/programs) section of this catalog.

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 (app.leg.wa.gov/rcw/default.aspx?cite=49.04) and WAC 296-05 (app.leg.wa.gov/wac/default.aspx?cite=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. All related supplemental instruction courses will be assessed for the appropriateness of awarding college level credit and documented on student transcripts. LCC, as defined in RCW 28B.10.016 (app.leg.wa.gov/rcw/default.aspx?cite=28B.10.016) , will grant as many credits as possible and appropriate, for related supplemental instruction in active state apprenticeship programs, within six years of the program's registration (or by the 2028-29 school year for programs registered during or before July 1st of 2022). 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 a registered 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

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Accounting Technician

Associate in Applied Science (AAS)

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 Associate in Applied Science (AAS) (lowercolumbia.edu/program-maps/business/AAS-Accounting-Technician)

Degree Requirements

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

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

Course Code	Course Title	Number of Credits
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

Course Code	Course Title	Number of Credits
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 permission from program advisor:

Course Code	Course Title	Number of Credits
CMST& 220	Public Speaking	5
CMST& 230	Small Group Communication	5
ECON& 202	Macro Economics	5

Program Outcomes

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)

Notes

Revised December 2020 (effective Fall 2021)

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.

Accounting Technician

Associate in Applied Science - Transfer (AAS-T)
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 Associate in Applied Science - Transfer (AAS-T) for LCC BAS-OLTM (lowercolumbia.edu/program-maps/business/AAST-Accounting-Technician-to-BAS-OLTM)

Degree Requirements

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

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

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

Course Code	Course Title	Number of Credits
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

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

Course Code	Course Title	Number of Credits
ECON& 202	Macro Economics	5

Program Outcomes

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)

Notes

Revised May 2023 (effective Summer 2023)

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.

Administrative Services Manager

Associate in Applied Science - Transfer (AAS-T)
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 Associate in Applied Science - Transfer (AAS-T) for LCC BAS-OLTM (lowercolumbia.edu/program-maps/business/AAST-Administrative-Services-Manager-to-BAS-OLTM)

Degree Requirements

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

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

Course Code	Course Title	Number of Credits
ACCT 101 ***OR*** ACCT 135	Intro to Accounting Concepts ***OR*** 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

Program Outcomes

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 Quantitative Literacy)
- Interact effectively with individuals and groups (GS Teamwork)
- 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

Notes

Revised May 2023 (effective Summer 2023)

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.

Administrative Services Manager

Associate in Applied Science (AAS)

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 Associate in Applied Science (AAS) (lowercolumbia.edu/program-maps/business/AAS-Administrative-Services-Manager)

Degree Requirements

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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**
  5 credits - 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 recommended.
- **Natural Sciences / Humanities:**

  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

Course Code	Course Title	Number of Credits
ACCT 101 ***OR*** ACCT 135	Intro to Accounting Concepts ***OR*** Accounting for Non-Accountants	5
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

Course Code	Course Title	Number of Credits
ENGL& 235	Technical Writing	5
IT 111	Intro to Windows	4
IT 230	Database Development	5

Program Outcomes

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 Quantitative Literacy)
- Interact effectively with individuals and groups (GS Teamwork)
- 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

Notes

Revised April 2024 (effective Summer 2024)

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.

Administrative Support

Certificate of Proficiency (COP)

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 Certificate of Proficiency (COP) (lowercolumbia.edu/program-maps/business/COP-Administrative-Support)

Degree Requirements

Total credits required to earn this degree: 49-53

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

Course Code	Course Title	Number of Credits
BUS 100	Foundations of Business Success	3
BUS 294	Career Success	2
BTEC 104	Into 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

Program Outcomes

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 Quantitative Literacy)
- Interact effectively with individuals and groups (GS Teamwork)
- 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

Notes

Revised December 2021 (effective Summer 2022)

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.

Anthropology Focus

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

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 Focus Associate in Arts - Direct Transfer Agreement (AA-DTA) (lowercolumbia.edu/program-maps/social-science/AADTA-Anthropology)

Degree Requirements

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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications: 15 credits**

  ENGL& 101 English Composition I ***AND***
  (ENGL& 102 Composition II ***OR*** ENGL& 235 Technical Writing) ***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. 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

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

Program Outcomes

Students completing this program should acquire 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.
- Quantitative Literacy: Reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations.
- Teamwork: Facilitate a team's ability to achieve a desired goal or outcome.

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.

Notes

Revised November 2024 (effective Summer 2025)

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.

Art & Design Focus

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

At LCC, students may select beginning and advanced courses in a variety or 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 & Design Focus Associate in Arts - Direct Transfer Agreement (AA-DTA) (Fine Arts) (lowercolumbia.edu/program-maps/arts/AADTA-Art-Design-Fine-Arts)

- Art & Design Focus Associate in Arts - Direct Transfer Agreement (AA-DTA) (Graphic Design) (lowercolumbia.edu/program-maps/arts/AADTA-Art-Design-Graphic-Design)

Degree Requirements

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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  15 credits: ENGL& 101 English Composition I ***AND***
  (ENGL& 102 Composition II *OR* ENGL& 235 Technical Writing) ***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

Course Code	Course Title	Number of Credits
ART 101	Beginning Drawing	3
ART 106	Two-Dimensional Design	5

Course Code	Course Title	Number of Credits
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

Program Outcomes

Students completing this program should acquire 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.
- Quantitative Literacy: Reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations.
- Teamwork: Facilitate a team's ability to achieve a desired goal or outcome.

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.

Notes

Revised November 2024 (effective Summer 2025)

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.

Automation, Instrumentation, & Robotics

Associate in Applied Science (AAS)

The Automation, Instrumentation, & Robotics Associate of Applied Science (AAS) degree prepares students to excel in a dynamic and rapidly evolving industrial environment. This comprehensive 2-year program offers hands-on training and technical skills in key areas, including automation systems, robotic technologies, industrial instrumentation, and equipment maintenance. Through a combination of theoretical knowledge and practical applications, students will gain the expertise needed to troubleshoot, repair, and optimize complex industrial systems. This degree serves as a pathway into LCC's Bachelor of Applied Science-Organizational Leadership & Technical Management (BAS-OLTM) degree.

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

- Automation, Instrumentation, & Robotics Associate in Applied Science (AAS) (lowercolumbia.edu/program-maps/trades/AAS-Automation-Instrumentation-Robotics)

Degree Requirements

Total credits required to earn this degree: 98

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  5 credits – ENGL& 101 English Composition I ***OR***
  ENGL 110 Industrial Communications ***OR***
  ENGL& 235 Technical Writing (ENGL& 101 required for OLTM)
- **Quantitative Skills:**

  5 credits – MATH 106 Industrial Mathematics or higher (MATH& 107 or higher required for OLTM)
- **Natural Sciences:**

  5 credits – DHET 240 Fluid Power/Electrical Theory and Design ***OR***
  MFG 130 Materials Science ***OR***
  CHEM& 100 Preparatory Chemistry ***OR***
  CHEM& 110 Chemical Concepts w/Lab ***OR***
  choose from the *Distribution List* (5 credits of Natural Science with lab required for OLTM)
- **Diversity / Human Relations / Social Science:**

  5 credits – BUS 144 Management of Human Relations ***OR***
  SOC& 101 Introduction to Sociology: DIV (SOC& 101 required for OLTM)

Program Requirements

Course Code	Course Title	Number of Credits
BLPT 120	Blueprint Reading for Industrial Technology	2
COLL 289	Employment Portfolio Seminar	1
CS 110	Introduction to Microcomputer Applications	3
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
IMIN 215	Programmable Logic Controllers	5
IMIN 230	Process Technology Equipment	4
IMIN 240	Instrumentation Fundamentals	5
IMIN 260	Advanced Instrumentation	5
MASP 107	Machining for Related Occupations	3
MFG 100	Foundational Skills for the Trades	2
MFG 105	Industrial Safety	3
MFG 140	Applied Hydraulics	4
MFG 230	Computer Integrated Manufacturing	4
MFG 288	Cooperative Work Experience	2
PMFG 110	Industrial & Predictive Maintenance Fundamentals	5
PMFG 150	Electrical and Electronic Fundamentals	6
PMFG 201	Electrical Control Equipment	3
PMFG 202	Electric Motors	2
PMFG 210	Advanced Industrial Maintenance	5
ROBT 260	Introduction to Robotics	5

Course Code	Course Title	Number of Credits
ROBT 270	Robotics in Automation	5
WELD 105	Related Welding	3

Program Outcomes

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

- Demonstrate skills in industrial maintenance to ensure the reliability and efficiency of machinery through preventative maintenance, diagnostics, and repair. (GS - Critical Thinking, Communication, Quantitative Literacy, Teamwork)
- Integrate knowledge and skills from the program by completing an internship that connects academic learning with real-world applications in industrial automation and maintenance environments. (GS - Critical Thinking, Communication, Quantitative Literacy, Teamwork)
- Understand and explain the principles of electrical and electronic systems, including power distribution, circuit design, and safety protocols, to support automation and maintenance tasks. (GS - Critical Thinking, Communication, Quantitative Literacy)
- Apply hands-on experience with instrumentation and control systems to monitor, calibrate, and adjust industrial processes for optimal performance. (GS - Critical Thinking, Communication, Quantitative Literacy)
- Demonstrate proficiency in the use of automation and robotic systems by configuring, operating, and maintaining automated technologies in industrial settings. (GS - Critical Thinking, Communication, Quantitative Literacy)
- Design, program, and troubleshoot automated systems by integrating electrical, mechanical, and software components to ensure smooth and efficient operation. (GS - Critical Thinking, Communication, Quantitative Literacy)

Notes

Revised January 2025 (effective Summer 2025)

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.

Automotive Technology

Associate in Applied Science (AAS)

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 Associate in Applied Science (AAS) (lowercolumbia.edu/program-maps/trades/AAS-Automotive-Technology)

Degree Requirements

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

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

Course Code	Course Title	Number of Credits
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

Course Code	Course Title	Number of Credits
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.

Program Outcomes

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.

Notes

Revised December 2021 (effective Summer 2022)

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.

Automotive Technology

Associate in Applied Science - Transfer (AAS-T)
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 Associate in Applied Science - Transfer (AAS-T) for LCC BAS-OLTM (lowercolumbia.edu/program-maps/trades/AAST-Automotive-Technology-to-BAS-OLTM)

Degree Requirements

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

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

Course Code	Course Title	Number of Credits
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

Course Code	Course Title	Number of Credits
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.

Program Outcomes

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.

Notes

Revised May 2023 (effective Summer 2023)

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.

Automotive Technology - Maintenance and Light Repair

Certificate of Proficiency (COP)

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 - Maintenance and Light Repair Certificate of Proficiency (COP) (lowercolumbia.edu/program-maps/trades/COP-Automotive-Technology-Maintenance-Light-Repair)

Degree Requirements

Total credits required to earn this degree: 69

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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 Pre-College Math II, MATH 106 Industrial Mathematics, or higher
- **Human Relations / Social Science:**

  5 credits – BUS 144 Management of Human Relations.

Program Requirements

Course Code	Course Title	Number of Credits
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

Program Outcomes

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.

Notes

Revised March 2021 (effective Fall 2021)

Consult an advisor if you have any questions.

Bioengineering & Chemical Pre-Engineering

AS-T BIO/CHEM E/MRP

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 & Chemical Pre-Engineering AS-T BIO/CHEM E/MRP (Bioengineering Option) (lowercolumbia.edu/program-maps/stem/AST-Bioengineering-and-Chemical-Pre-Engineering-Bioengineering-Option)
- Bioengineering & Chemical Pre-Engineering AS-T BIO/CHEM E/MRP (Chemical Option) (lowercolumbia.edu/program-maps/stem/AST-Bioengineering-and-Chemical-Pre-Engineering-Chemical-Option)

Degree Requirements

Total 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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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.

Program Requirements

Pre-Major Requirements (40 credits)

Course Code	Course Title	Number of 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* ***OR*** CHEM& 262*	Majors Ecology/Evolution: w/ Lab ***OR*** Organic Chemistry w/Lab II	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

Course Code	Course Title	Number of Credits
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	Fundamentals of Computer Programming	5
ENGL& 235	Technical Writing	5
ENGR& 204	Electrical Circuits	6
ENGR& 224	Thermodynamics	5

Course Code	Course Title	Number of Credits
MATH& 254* (was MATH 154)	Calculus IV	5
MATH 220	Linear Algebra	5

Program Outcomes

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.

Notes

Revised June 2019 (effective Fall 2019)

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

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.

Biological Sciences

Associate in Science - Transfer (AS-T)

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 Associate in Science - Transfer (AS-T) (lowercolumbia.edu/program-maps/stem/AST-Biological-Sciences)

Degree Requirements

Total 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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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.

Program Requirements

Pre-Major Requirements

Course Code	Course Title	Number of 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
CHEM& 261*	Organic Chemistry w/Lab I	5
CHEM& 262*	Organic Chemistry w/Lab II	5
MATH& 146 ***OR*** MATH& 153*	Introduction to Statistics ***OR*** Calculus III	5

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

Recommended Electives

MATH 141 and MATH 142 are recommended for students needing the courses prior to MATH& 151. Other recommended electives:

Course Code	Course Title	Number of Credits
BIOL& 260	Microbiology	5
CHEM& 263*	Organic Chemistry w/Lab III	5

Program Outcomes

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.

Notes

Revised August 2022 (effective Summer 2023)

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

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.

Biology

Associate in Biology DTA/MRP

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, chiropracty, 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 Associate in Biology DTA/MRP (lowercolumbia.edu/program-maps/stem/DTA-MRP-Biology)

Degree Requirements

Total credits required to earn this degree: 90

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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.*

Program Outcomes

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)

Notes

Revised May 2021 (effective Summer 2021)

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

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.

Business

Associate in Business DTA/MRP

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 - Online Associate in Business DTA/MRP (lowercolumbia.edu/program-maps/business/DTA-MRP-Business-Online)
- Business Associate in Business DTA/MRP (lowercolumbia.edu/program-maps/business/DTA-MRP-Business)

Degree Requirements

Total 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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  10 credits - ENGL& 101 English Composition I ***AND***
  ENGL& 102 Composition II (see Note 1).
- **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 (See Notes 2 and 3).
- **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 (See Note 4).
- **Social Sciences:**

  15 credits – ECON& 201 Micro Economics ***AND***
  ECON& 202 Macro Economics ***AND***
  An additional 5 credits of Social Science from the D*istribution List for Transfer Degrees*.
- **Electives:**

  5 credits of non-business electives except as noted below (See Note 5).

Program Requirements

Course Code	Course Title	Number of 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

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

Program Outcomes

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

- Develop an understanding or 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.

Notes

Revised March 2019 (effective Summer 2019)

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.
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.
3. Students are encouraged to include a speech or oral communication course (not small group communication).
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.
5. 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)

6. 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.
7. Universities with a lower division Business Law requirement: UW (all campuses), WSU (all campuses), EWU, CWU, WWU, Gonzaga, SMU, SPU, Whitworth.
8. 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.

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.

Business - Online

Associate in Business DTA/MRP

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 - Online Associate in Business DTA/MRP (lowercolumbia.edu/program-maps/business/DTA-MRP-Business-Online)

Degree Requirements

Total 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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  10 credits - ENGL& 101 English Composition I ***AND***
  ENGL& 102 Composition II (see Note 1).
- **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 (See Notes 2 and 3).
- **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 (See Note 4).
- **Social Sciences:**

  15 credits – ECON& 201 Micro Economics ***AND***
  ECON& 202 Macro Economics ***AND***
  an additional 5 credits of Social Science from the D*istribution List for Transfer Degrees*.
- **Electives:**

  5 credits of non-business electives except as noted below (See Note 5).

Program Requirements

Course Code	Course Title	Number of 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

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

Program Outcomes

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

- Develop an understanding or 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.

Notes

Revised March 2019 (effective Summer 2019)

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.
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.
3. Students are encouraged to include a speech or oral communication course (not small group communication).
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.
5. 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)
6. 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.

7. Universities with a lower division Business Law requirement: UW (all campuses), WSU (all campuses), EWU, CWU, WWU, Gonzaga, SMU, SPU, Whitworth.
8. 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.

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.

Business Management

Associate in Applied Science (AAS)

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 Associate in Applied Science (AAS) (lowercolumbia.edu/program-maps/business/AAS-Business-Management)

Degree Requirements

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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

Course Code	Course Title	Number of Credits
ACCT 101 ***OR*** ACCT 135 ***OR*** ACCT& 201	Intro to Accounting Concepts***OR*** Accounting F/Non Accountants ***OR*** Principles of Accounting I	5
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 ***OR*** 3
BTEC 131	Introduction to Spreadsheets	5
ECON 105 ***OR*** ECON& 201	Introduction to Economics ***OR*** Micro Economics	5

Program Outcomes

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 Quantitative Literacy)
- Interact effectively with individuals and groups. (GS Teamwork)
- 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)

Notes

Revised December 2021 (effective Summer 2022)

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.

Business Management

Associate in Applied Science - Transfer (AAS-T)
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.

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 Associate in Applied Science - Transfer (AAS-T) for LCC BAS-OLTM (lowercolumbia.edu/program-maps/business/AAST-Business-Management-to-BAS-OLTM)

Degree Requirements

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

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

Course Code	Course Title	Number of Credits
ACCT 101 ***OR*** ACCT 135 ***OR*** 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

Course Code	Course Title	Number of Credits
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

Program Outcomes

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 Quantitative Literacy)
- Interact effectively with individuals and groups. (GS Teamwork)
- 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)

Notes

Revised May 2023 (effective Summer 2023)

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.

Chemistry

Associate in Science - Transfer (AS-T)

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 Associate in Science - Transfer (AS-T) (lowercolumbia.edu/program-maps/stem/AST-Chemistry)

Degree Requirements

Total 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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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.

Program Requirements

Pre-Major Requirements

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

Course Code	Course Title	Number of 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
MATH& 146 ***OR*** MATH& 153*	Introduction to Statistics ***OR*** Calculus III	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
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

Course Code	Course Title	Number of Credits
CHEM 231	Quantitative Analysis	5
MATH 220	Linear Algebra	5
MATH 240	Differential Equations	5

Program Outcomes

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.

Notes

Revised March 2019 (effective Summer 2019)

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.

Commercial Truck Driving

Certificate of Completion (COC)

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 Certificate of Completion (COC) (lowercolumbia.edu/program-maps/trades/COC-Commercial-Truck-Driving)

Degree Requirements

Total credits required to earn this degree: 10

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

Program Requirements

Course Code	Course Title	Number of Credits
DHET 228	Commercial Driving	4
DHET 229	Commercial Truck Driving	6

Program Outcomes

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.

Notes

Revised July 2018 (effective Fall 2018)

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.

Communication Studies Focus

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

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 Focus Associate in Arts - Direct Transfer Agreement (AA-DTA) (lowercolumbia.edu/program-maps/arts/AADTA-Communication-Studies)

Degree Requirements

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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  15 credits: ENGL& 101 English Composition I ***AND***
  (ENGL& 102 Composition II *OR* ENGL& 235 Technical Writing) ***AND***
  (CMST& 220 Public Speaking *OR* CMST& 230 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& 240 (was CMST 250) 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

Course Code	Course Title	Number of Credits
CMST& 210 (was SPCH 104)	Interpersonal Communication	5
CMST& 240 (was CMST 250)	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.

Recommended if not used for Communication requirement:

Course Code	Course Title	Number of Credits
CMST& 220 (was SPCH 110) ***OR*** CMST& 230 (was SPCH 114)	Public Speaking ***OR*** Small Group Communication	5

Program Outcomes

Students completing this program should acquire 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.
- Quantitative Literacy: Reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations.
- Teamwork: Facilitate a team's ability to achieve a desired goal or outcome.

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

Notes

Revised November 2024 (effective Summer 2025)

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.

Community, Health, and Wellness Advocate

Certificate of Completion (COC)

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 Certificate of Completion (COC) (lowercolumbia.edu/program-maps/business/COC-Community-Health-and-Wellness-Advocate)

Degree Requirements

Total credits required to earn this degree: 18 and pass each course listed in the program requirements with a C or better.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

Program Requirements

Course Code	Course Title	Number of Credits
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 ***OR*** MEDA 101	Medical Terminology I ***OR*** Medical Vocabulary I	3
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1

Program Outcomes

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

Notes

Revised August 2022 (effective Summer 2023)

Consult an advisor if you have any questions.

Community, Health, and Wellness Advocate

Certificate of Proficiency (COP)

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.

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 Certificate of Proficiency (COP) (lowercolumbia.edu/program-maps/business/COP-Community-Health-and-Wellness-Advocate)

Degree Requirements

Total credits required to earn this degree: 63 credits and pass each course listed in program requirements with a C or better.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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.

Program Requirements

Course Code	Course Title	Number of Credits
AH 166	Mental Health First Aid for Adults	1
BUS 100	Foundations of Business Success	3
BTEC 104 ***OR*** CS 110 ***AND*** BTEC 146	Intro to Business Technology ***OR*** Intro to Microcomputer Applications ***AND*** Powerpoint Fundamentals	5
BTEC 111	Word Processing I	5
BTEC 131	Introduction to Spreadsheets	5
BTEC 160	Medical Scribe	3
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 ***OR*** MEDA 101	Medical Terminology I ***OR*** Medical Vocabulary I	3
BTEC 182 ***OR*** MEDA 102	Medical Terminology II **OR** Medical Vocabulary II	3
BUS 294	Career Success	2
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1

Program Outcomes

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

Notes

Revised August 2023 (effective Summer 2024)

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.

Computer & Electrical Pre-Engineering

AS-T COMP E EE/MRP

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 & Electrical Pre-Engineering AS-T COMP E EE/MRP (2 year) (lowercolumbia.edu/program-maps/stem/AST-Computer-and-Electrical-Pre-Engineering-2-year)
- Computer & Electrical Pre-Engineering AS-T COMP E EE/MRP (3 year) (lowercolumbia.edu/program-maps/stem/AST-Computer-and-Electrical-Pre-Engineering-3-year)

Degree Requirements

Total 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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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.

Program Requirements

Pre-Major Requirements (41 credits)

Course Code	Course Title	Number of Credits
CHEM& 161*	General Chemistry w/Lab I	5
CS 170	Fundamentals of 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

Course Code	Course Title	Number of Credits
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	5
ENGR& 224	Thermodynamics	5
MATH& 254* (was MATH 154)	Calculus IV	5

**Required for WSU-V

Program Outcomes

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.

Notes

Revised April 2023 (effective Summer 2023)

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

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.

Computer Numerical Control

Certificate of Proficiency (COP)

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 Certificate of Proficiency (COP) (lowercolumbia.edu/program-maps/trades/COP-Computer-Numerical-Control)

Degree Requirements

Total credits required to earn this degree: 69

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

Course Code	Course Title	Number of Credits
BLPT 150	Machinists Blueprint Reading	5
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
MASP 107 ***AND/OR*** MASP 111	Machining for Related Occupations ***AND/OR*** Machine Shop I *(2-10 cr variable) 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

Program Outcomes

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.

Notes

Revised March 2021 (effective Fall 2021)

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.

Computer Science

Bachelor of Science Computer Science (BSCS)

The Bachelor of Science Computer Science (BSCS) degree prepares graduates to pursue careers in a wide variety of computing-related fields. The program is anchored with core courses that provide a solid foundation in theoretical and practical aspects of computer science to ensure students will have the requisite critical thinking, effective programming and problem-solving skills in a variety of modern programming languages, with an emphasis on understanding security and systems issues. In addition, students learn about algorithms, performance analysis, networks, computer architectures, information systems and software engineering.

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 Bachelor of Science Computer Science (BSCS) (lowercolumbia.edu/program-maps/stem/BS-Computer-Science)
- Computer Science Bachelor of Science Computer Science (BSCS) (Calc Ready) (lowercolumbia.edu/program-maps/stem/BS-Computer-Science-Calc-Ready)

Degree Requirements

Total credits required to earn this degree: 180

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications: 15 credits**

    - ENGL& 101 English Composition I
    - CMST& 220 Public Speaking ***OR***
    - CMST& 230 Small Group Communication
    - CMST 330 Professional/Organizational Communications
- **Quantitative Skills: 10 credits**
    - MATH& 146 Introduction to Statistics ***AND***
    - MATH& 151 Calculus I
- **Humanities: 10 credits**
    - ENGL& 235 Technical Writing ***AND***
    - OLTM 440 Ethics and Leadership ***OR***
    - HUM 315 Ethics
- **Natural Science: 15 credits**
    - CS 270 Data Structures I
    - MATH 215 Discrete Mathematics ***AND***
    - 5 credits of natural science with lab from the Distribution List (Recommended one of the following: BIOL& 160, BIOL& 221, BIOL& 222, BIOL& 223, BIOL& 241, CHEM& 161, PHYS& 221, PHYS& 222, PHYS& 223, ERSI 104, ENVS 215, GEOL 105, GEOL 118, GEOL& 101, GEOL& 208, ***OR*** OCEA& 101)
- **Social Science / Diversity: 5 credits**
    - SOC& 101 Introduction to Sociology: DIV OR
    - HIST& 128 World Civilizations III: DIV

Program Requirements

Course Code	Course Title	Number of Credits
CS 170	Fundamentals of Computer Programming	5
CS 275	Object-Oriented Programming	5
CS 280	Advanced Data Structures	5
CS 285	Programming Tools	5
ENGR 205	Design of Logic Circuits	5
ENGR 206	Microprocessor Systems	5
IT 249	Linux Operating Systems	5
CS 305	Linear Algebra with CS Applications	5
CS 310	Programming Languages	5
CS 318	Computer Architecture	5
CS 320	Databases and Information Management Systems	5
CS 334	Data Structures & Algorithms	5

Course Code	Course Title	Number of Credits
CS 340	Operating Systems	5
CS 350	Software Engineering	5
CS 402	Statistical Methods of User Research	5
CS 410	Computer Networks	5
CS 420	Cloud Computing Software and Services	5
CS 430	Software Design and Implementation	5
CS 435	Secure Software Development	5
CS 440	Software Design Team Project	5
CS 450	Security Foundations	5
CS 455	Data Science Development	5
CS 495	Capstone/Internship	5
Electives	Select any professional-technical course or any course from the Distribution List. Please see your advisor for recommendations.	10

Program Outcomes

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

- Analyze and architect innovative solutions to complex problems, considering specified constraints, and evaluate these solutions within defined contexts.
- Design, analyze, and apply secure, robust, and efficient code, while also emphasizing code reuse and adherence to coding standards.
- Design, implement, and evaluate security measures to safeguard information systems and data.
- Create software throughout the development lifecycle, adhering to best practices for efficiency, readability, modularity, and maintainability.
- Demonstrate competence in data management, including organization, storage, retrieval, and analysis of large datasets.
- Demonstrate proficiency in specialized platform development, including design optimization and adaptation to specific environments.
- Construct concise and effective communication with stakeholders through various mediums such as written, verbal, and presentations.

- Apply technical expertise and professionalism to work effectively on multidisciplinary, diverse, and global teams to achieve project objectives.
- Design individual computer science career paths, setting goals and milestones, and building a professional network through internships, industry events, and mentorship programs.
- Recognize professional responsibilities and make informed judgments in computing practice based on ethical, legal, social issues, and security principles.

Notes

Revised April 2025 (effective Summer 2025)

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.

Criminal Justice

Associate in Applied Science (AAS)

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 Associate in Applied Science (AAS) (lowercolumbia.edu/program-maps/social-science/AAS-Criminal-Justice)

Degree Requirements

Total credits required to earn this degree: 94-96 with a cumulative grade point average (GPA) of at least 2.0

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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.
- **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

Course Code	Course Title	Number of Credits
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

Course Code	Course Title	Number of Credits
SUDS 114	Suicide Assessment, Prevention, and Crisis Management	2
SOC& 101	Introduction to Sociology:DIV	5
POLS 220	Law and Social Issues	5
CJ 288 / COLL 289	Criminal Justice Co-op Work Experience / Employment Portfolio Seminar	Varies

Program Outcomes

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

Notes

Revised November 2024 (effective Summer 2025)

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.

Criminal Justice Certificate

Certificate of Proficiency (COP)

The Criminal Justice Certificate Program prepares students for entry-level employment in a variety of positions within the criminal justice field. The program generally can be completed within one academic year if students enter the program ready for college-level math and English. Students can then continue studies to complete the Criminal Justice AAS degree or the AA-DTA, Criminal Justice or other focus degree. Students may enter the program in the fall, winter, spring or summer quarter.

Degree Requirements

Total credits required to earn this degree: 45 with a cumulative grade point average (GPA) of at least 2.0

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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/ Social Science:**
  5 credits – PSYC& 100 General Psychology

Program Requirements

Course Code	Course Title	Number of Credits
CJ& 101	Introduction to Criminal Justice	5
CJ 104	Introduction to Policing	5
CJ& 106	Juvenile Justice	5
CJ& 110	Criminal Law	5
CJ 180	Report Writing for Law Enforcement	5
CMST& 210	Interpersonal Communication	5

Program Outcomes

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)
- Use effective verbal and written communication skills (GS - Communications)
- Demonstrate basic knowledge and application of methods of police patrol, operations, and management (GS - Critical Thinking)
- Analyze numerical data as applied to criminal justice (GS - Quantitative Literacy)
- Generate satisfactory reports based on knowledge of investigative techniques, evidence gathering, searching, sketching, and on-scene interviewing (GS - Communications)
- Demonstrate knowledge of the juvenile justice system
- Evaluate ethics and ethical applications in criminal justice

Notes

Revised September 2024 (effective Summer 2025)

Criminal Justice Focus

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

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 Focus Associate in Arts - Direct Transfer Agreement (AA-DTA) (lowercolumbia.edu/program-maps/social-science/AADTA-Criminal-Justice)

Degree Requirements

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. COLL 101, 2 credits, is also required for all new students in addition to 90 credits as stated above.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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: 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 (no more than 3 PHED credits).

Program Outcomes

Students completing this program should acquire 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.
- Quantitative Literacy: Reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations.
- Teamwork: Facilitate a team's ability to achieve a desired goal or outcome.

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 completing this program should acquire the following skills and abilities:

- Use effective oral and written communication skills. (GS - Communications)
- Examine the function of the legal system from the civil and criminal justice perspectives.
- Demonstrate understanding of how our criminal justice system evolved and how it functions. (GS - Critical Thinking)
- Apply social science reasoning to a range of criminal justice issues. (GS - Critical Thinking)

Notes

Revised November 2024 (effective Summer 2025)

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.

Diesel/Heavy Equipment Preventative Maintenance

Certificate of Proficiency (COP)

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 Certificate of Proficiency (COP) (lowercolumbia.edu/program-maps/trades/COP-Diesel-Heavy-Equipment-Preventative-Maintenance)

Degree Requirements

Total credits required to earn this degree: 64

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

Course Code	Course Title	Number of Credits
HLTH 105	First Aid, CPR, and Bloodborne Pathogens	1
MFG 105	Industrial Safety	3
DHET	Any DHET courses approved by the program Advisor	45

Program Outcomes

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.

Notes

Revised March 2021 (effective Summer 2021)

Consult an advisor if you have any questions.

Diesel/Heavy Equipment Technology

Associate in Applied Science - Transfer (AAS-T)
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 Associate in Applied Science - Transfer (AAS-T) for LCC BAS-OLTM (lowercolumbia.edu/program-maps/trades/AAST-Diesel-Heavy-Equipment-to-BAS-OLTM)

Degree Requirements

Total credits required to earn this degree: 125

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

Course Code	Course Title	Number of Credits
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.

Program Outcomes

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 Quantitative Literacy).

- Interact effectively with individuals and groups (GS Teamwork).
- 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.

Notes

Revised May 2023 (effective Summer 2023)

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.

Diesel/Heavy Equipment Technology

Associate in Applied Science (AAS)

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 Associate in Applied Science (AAS) (lowercolumbia.edu/program-maps/trades/AAS-Diesel-Heavy-Equipment)

Degree Requirements

Total credits required to earn this degree: 129 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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 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*.
- **Electives:**

  10 credits - Students choose from the following options:
  Option 1:

  Option 2:

  - DHET 228 Commercial Driving (4 cr) ***AND***
    DHET 229 Commercial Truck Driving Operation (6 cr)
  - COLL 289 Employment Portfolio Seminar (1 cr)***AND***
    DHET 288 Cooperative Work Experience (4 cr)***AND***
    WELD 105 Related Welding (5 cr)

A combination of the following courses, up to 5 credits, may be substituted for COLL 289 AND DHET 288 with program advisor permission: ACCT 101 (5 cr), ACCT 135 (5 cr), BUS& 101 (5 cr), BUS 150 (5 cr), CS 110 (3 cr), DHET 299 (1-5 cr), IT 111 (4 cr), MASP 107 (1-5 cr), or other WELD courses.

Program Requirements

Course Code	Course Title	Number of Credits
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

Course Code	Course Title	Number of Credits
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

Program Outcomes

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 Quantitative Literacy).
- Interact effectively with individuals and groups (GS Teamwork).
- 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.

Notes

Revised December 2021 (effective Summer 2022)

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.

Drama Focus

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

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 Focus Associate in Arts - Direct Transfer Agreement (AA-DTA) (lowercolumbia.edu/program-maps/arts/AADTA-Drama)

Degree Requirements

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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  15 credits: ENGL& 101 English Composition I ***AND***
  (ENGL& 102 Composition II *OR* ENGL& 235 Technical Writing) ***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 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

Course Code	Course Title	Number of Credits
DRMA& 101	Introduction to Theatre:DIV	5
DRMA 106/7/8	Intro to Acting I, II, III	5 ea.

Course Code	Course Title	Number of Credits
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.

Program Outcomes

Students completing this program should acquire 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.
- Quantitative Literacy: Reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations.
- Teamwork: Facilitate a team's ability to achieve a desired goal or outcome.

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.

Notes

Revised November 2024 (effective Summer 2025)

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.

Early Childhood Education

Associate in Applied Science (AAS)

This program provides students with both academic coursework and field experience necessary to become a teacher of children ages birth to 8 years-old. 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 (DCYF). See: https://www.dcyf.wa.gov/services/early-learning-providers/background-checks

This degree transfers to the Lower Columbia College BAS-TE and BAS-OLTM degrees.

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 Associate in Applied Science (AAS) (lowercolumbia.edu/program-maps/education/AAS-Early-Childhood-Education)

Degree Requirements

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

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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 254 History of Washington and the Pacific Northwest

- **Diversity:**

  5 credits – EDUC& 205 Introduction to Education w/Field Experience ***OR*** EDUC& 202 Intro to Education

Program Requirements

Course Code	Course Title	Number of Credits
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 ***OR*** EDUC& 130*	Learning Environments ***OR*** Guiding Behavior*	3
ECED& 180	Language & Literacy Development	3
ECED& 190	Observation/Assessment	3
EDUC 230	Social Skill Development & Trauma Informed Teaching	5
ECED 261	Practicum IV/Principles	3
ECED 262	Practicum V/Practice	3
EDUC 246	Linguistically Diverse Education	3
EDUC& 130* ***OR*** ECED& 132 ***OR*** EDUC& 136 ***OR*** ECED& 134 ***OR*** ECED& 139	Guiding Behavior (ECED Gen)* ***OR*** Infants/Toddler Care (Inf/Tod Care) ***OR*** School Age Care (School-Age Care) ***OR*** Family Child Care (Family Child Care) ***OR*** Administration of ECE (Admin)	3
EDUC& 150	Child/Family/Community	3
EDUC& 204	Inclusive Education-Birth through 21 focus	5

*EDUC& 130 Guiding Behavior may not be used more than once for degree or certificate requirements.

Program Outcomes

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

- Create and maintain a safe and healthy environment for young children and families (GS - Critical Thinking)
- Discuss how children differ in their development and approaches to learning (GS - Critical Thinking)
- Apply knowledge of child development to intentionally support physical, social, emotional and cognitive growth (GS - Critical Thinking)
- Develop interpersonal skills to build relationships with children and families, enhancing children's self-esteem, social and emotional development, and problem solving skills (GS - Teamwork)
- Utilize theory, research, developmentally appropriate practice and a variety of instructional strategies when planning and implementing curriculum (GS - Critical Thinking)
- Individualize guidance and problem solving techniques to support social and emotional development (GS - Critical Thinking)
- Assess a variety of tools to strengthen the home to school connection (GS - Critical Thinking)
- Examine features of an anti-biased, culturally relevant environment/curriculum, not exclusive to race, ethnicity, family diversity, learning styles and abilities (GS - Critical Thinking)
- Create a professional development plan to maintain knowledge of current issues and trends in the field (GS - Critical Thinking)
- Communicate effectively through the spoken and written word and through visual materials for varied audience and purposes (GS - Communication)
- Compare and contrast a variety of observation and assessment tools, to analyze data with the purpose of developing age and developmentally appropriate curriculum (GS - Quantitative Literacy)
- Utilize critical thinking strategies to evaluate the validity of sources, and credit ideas or sources appropriately (GS - Critical Thinking)
- Analyze numerical data from child assessments to plan and implement developmentally appropriate teaching strategies (GS - Quantitative Literacy)

Notes

Revised November 2024 (effective Summer 2025)

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.

Early Childhood Education (State Certificate)

Certificate of Proficiency (COP)

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 (State Certificate) Certificate of Proficiency (COP) (lowercolumbia.edu/program-maps/education/COP-State-Early-Childhood-Education)

Degree Requirements

Total credits required to earn this degree: 47

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  5 credits - ENGL& 101 English Composition I
- **Quantitative Skills:**

  5 credits - MATH& 131 Math for Elementary Educators 1
- **Human Relations/Social Science:**

  5 credits - EDUC& 115 Child Development

Program Requirements

Course Code	Course Title	Number of Credits
ECED& 105	Intro to Early Childhood Education	5
ECED& 107	Health/Safety/Nutrition	5
ECED& 120	Practicum-Nurturing Relationships	2
ECED& 160	Curriculum Development	5
ECED& 180	Lang/ Literacy Development	3
ECED& 190	Observation/Assessment	3
ECED& 170 ***OR*** EDUC& 130*	Learning Environments ***OR*** Guiding Behavior	3
EDUC& 150	Child/Family/Community	3

Complete one of the following content areas:

Course Code	Course Title	Number of Credits
EDUC& 130*	Guiding Behavior (ECED Gen)	3
ECED& 132	Infants/Toddlers 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

*EDUC& 130 Guiding Behavior may not be used more than once for a degree or certificate requirements.

Program Outcomes

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.

Notes

Revised December 2023 (effective Summer 2024)

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.

Early Childhood Education (State Initial Certificate)

Certificate of Completion (COC)

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

Degree Requirements

Total credits required to earn this degree: 12

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

Program Requirements

Course Code	Course Title	Number of Credits
ECED& 105	Intro to Early Childhood Education	5
ECED& 107	Health/Safety/Nutrition	5
ECED& 120	Practicum-Nurturing Relationships	2

Program Outcomes

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.

Notes

Revised May 2014 (effective Fall 2014)

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.

Early Childhood Education (State Short Certificate) - Administration

Certificate of Specialization (COS)

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

Degree Requirements

Total credits required to earn this degree: 20

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

Program Requirements

Course Code	Course Title	Number of Credits
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& 139	Administration of ECE	3

Program Outcomes

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.

Notes

Revised March 2019 (effective Spring 2019)

Consult an advisor if you have any questions.

Early Childhood Education (State Short Certificate) - Family Child Care

Certificate of Specialization (COS)

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

Degree Requirements

Total credits required to earn this degree: 20

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

Program Requirements

Course Code	Course Title	Number of Credits
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

Course Code	Course Title	Number of Credits
ECED& 134	Family Child Care	3

Program Outcomes

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.

Notes

Revised May 2014 (effective Fall 2014)

Consult an advisor if you have any questions.

Early Childhood Education (State Short Certificate) - General

Certificate of Specialization (COS)

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

Degree Requirements

Total credits required to earn this degree: 20

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

Program Requirements

Course Code	Course Title	Number of Credits
ECED& 105	Intro to Early Childhood Education	5
ECED& 107	Health/Safety/Nutrition	5

Course Code	Course Title	Number of Credits
ECED& 120	Practicum-Nurturing Relationships	2
EDUC& 115	Child Development	5
EDUC& 130	Guiding Behavior	3

Program Outcomes

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.

Notes

Revised May 2014 (effective Fall 2014)

Consult an advisor if you have any questions.

Early Childhood Education (State Short Certificate) - Infants & Toddlers

Certificate of Specialization (COS)

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

Degree Requirements

Total credits required to earn this degree: 20

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

Program Requirements

Course Code	Course Title	Number of Credits
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

Program Outcomes

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.

Notes

Revised May 2014 (effective Fall 2014)

Consult an advisor if you have any questions.

Early Childhood Education (State Short Certificate) - School Age Care

Certificate of Specialization (COS)

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

Degree Requirements

Total credits required to earn this degree: 20

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

Program Requirements

Course Code	Course Title	Number of Credits
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

Program Outcomes

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.

Notes

Revised January 2015 (effective Fall 2015)

Consult an advisor if you have any questions.

Earth Sciences

Associate in Science - Transfer (AS-T)

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 Associate in Science - Transfer (AS-T) (lowercolumbia.edu/program-maps/stem/AST-Earth-Sciences)

Degree Requirements

Total 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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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.

Program Requirements

Pre-Major Requirements (50 credits)

Course Code	Course Title	Number of 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 ***OR*** GEOL 118	Intro to Oceanography ***OR*** Historical Geology	5
MATH& 153* ***OR*** MATH& 146	Calculus III ***OR*** Introduction to Statistics	5

Course Code	Course Title	Number of Credits
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

Course Code	Course Title	Number of Credits
MATH& 141	Precalculus I	6
MATH& 142	Precalculus II	5
ASTR& 101	Intro to Astronomy	5
OCEA& 101	Intro to Oceanography	5

Program Outcomes

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.

Notes

Revised February 2020 (effective Winter 2020)

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

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.

Earth Sciences Focus

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

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 Focus Associate in Arts - Direct Transfer Agreement (AA-DTA) (lowercolumbia.edu/program-maps/stem/AADTA-Earth-Sciences)

Degree Requirements

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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  15 credits: ENGL& 101 English Composition I ***AND***
  (ENGL& 102 Composition II ***OR*** ENGL& 235 Technical Writing) ***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. 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 Electives

Course Code	Course Title	Number of Credits
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

Program Outcomes

Students completing this program should acquire 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.
- Quantitative Literacy: Reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations.
- Teamwork: Facilitate a team's ability to achieve a desired goal or outcome.

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.

Notes

Revised June 2024 (effective Summer 2024)

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

MATH& 141 and 142 are highly recommended.

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.

Economics Focus

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

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 Focus Associate in Arts - Direct Transfer Agreement (AA-DTA) (lowercolumbia.edu/program-maps/social-science/AADTA-Economics)

Degree Requirements

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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  15 credits: ENGL& 101 English Composition I ***AND***
  (ENGL& 102 Composition II ***OR*** ENGL& 235 Technical Writing) ***AND***
  (CMST& 220 Public Speaking ***OR*** CMST& 230 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

Course Code	Course Title	Number of Credits
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	US Government	5
POLS& 203	International Relations	5
PSYC& 100	General Psychology	5

Program Outcomes

Students completing this program should acquire 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.
- **Quantitative Literacy:** Reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations.
- **Teamwork:** Facilitate a team's ability to achieve a desired goal or outcome.

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.

Notes

Revised June 2024 (effective Summer 2024)

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.

Education

Associate in Applied Science (AAS)

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 Associate in Applied Science (AAS) (lowercolumbia.edu/program-maps/education/AAS-Education)

Degree Requirements

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

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**
  10 credits - ENGL& 101 English Composition I ***AND***
  CMST& 220 Public Speaking
- **Quantitative Skills:**
  5 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 254 History of Washington and the Pacific Northwest ***AND***
  EDUC& 115 Child Development
- **Diversity:**
  5 credits – EDUC& 205 Intro to Education with Field Experience: DIV ***OR***
  EDUC& 202 Intro to Education: DIV is required

Program Requirements

Course Code	Course Title	Number of Credits
EDUC& 101	Paraeducator Basics	3
EDUC& 130	Guiding Behavior	3
EDUC 191	Field Experience I	5

Course Code	Course Title	Number of Credits
EDUC& 204	Inclusive Education: Birth-21 Focus	5
EDUC 230	Social Skill Development & Trauma Informed Teaching	5
EDUC 240	Diversity in Education	5
EDUC 245	Collaborative Instruction and Classroom Support	5
EDUC 246	Linguistically Diverse Education	3
EDUC 255	Crisis Management and Support in Inclusive Classrooms	3
EDUC 291	Field Experience II	5
CS 110	Introduction to Microcomputer Applications	3
SUDS 114	Suicide Assessment, Prevention, and Crisis Management	2

Program Outcomes

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

- Develop effective relationships with students, families and colleagues. (GS - Communication, Teamwork)
- Apply knowledge of emotional and academic support to students, promoting their social-emotional development. (GS - Critical Thinking)
- Demonstrate the ability to assist in administering assessments, monitoring student progress, and recording and maintaining data, under the direction of certificated/licensed staff. (GS - Quantitative Literacy)
- Develop culturally responsive instructional strategies. (GS - Teamwork)
- Demonstrate professionalism and ethical practices. (GS - Teamwork)
- Utilize various communication methods, problem-solving skills, and collaboration strategies with staff, students, families, and community. (GS - Communication)
- Implement behavior management strategies effectively to support student engagement and participation. (GS - Critical Thinking)
- Demonstrate the ability to support instructional activities under the guidance of the classroom teacher by providing individualized or small group instruction to reinforce learning concepts effectively. (GS - Quantitative Literacy)
- Knowledge of behavioral support systems/strategies that create inclusive and safe learning environments.

Notes

Revised November 2024 (effective Summer 2025)

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.

Education Focus

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

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 Focus Associate in Arts - Direct Transfer Agreement (AA-DTA) (lowercolumbia.edu/program-maps/education/AADTA-Education)

Degree Requirements

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

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  15 credits: ENGL& 101 English Composition I ***AND***
  (ENGL& 102 Composition II *OR* ENGL& 235 Technical Writing) ***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 254, 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.

Program Outcomes

Students completing this program should acquire 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.
- Quantitative Literacy: Reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations.
- Teamwork: Facilitate a team's ability to achieve a desired goal or outcome.

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

Revised June 2024 (effective Summer 2024)

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.

English Focus

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

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 Focus Associate in Arts - Direct Transfer Agreement (AA-DTA) (lowercolumbia.edu/program-maps/arts/AADTA-English)

Degree Requirements

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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  15 credits: ENGL& 101 English Composition I ***AND***
  (ENGL& 102 Composition II *OR* ENGL& 235 Technical Writing) ***AND***
  (CMST& 220 Public Speaking *OR* CMST& 230 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

Course Code	Course Title	Number of Credits
ENGL& 111	Intro to Literature	5
ENGL 233	Creative Writing	5
ENGL& 236	Creative Writing I	5
ENGL& 237	Creative Writing II	5
ENGL 245	Contemporary Literature:DIV	5

Program Outcomes

Students completing this program should acquire 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.
- Quantitative Literacy: Reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations.
- Teamwork: Facilitate a team's ability to achieve a desired goal or outcome.

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.

Notes

Revised November 2024 (effective Summer 2025)

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.

Environmental Science

Associate in Science - Transfer (AS-T)

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 Associate in Science - Transfer (AS-T) (lowercolumbia.edu/program-maps/stem/AST-Environmental-Science)

Degree Requirements

Total 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

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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.

Program Requirements

Pre-Major Requirements (45 credits)

Course Code	Course Title	Number of 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* ***OR*** MATH& 146	Calculus III ***OR*** Introduction to Statistics	5

Recommended Electives

Course Code	Course Title	Number of Credits
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

Program Outcomes

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.

Notes

Revised August 2022 (effective Summer 2023)

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

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.

Fitness Specialist

Certificate of Completion (COC)

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 & Fitness Focus Associate in Arts - Direct Transfer Agreement (AA-DTA) (with Specialist Certificates: Group Fitness, Health Coach, and Personal Training) (lowercolumbia.edu/program-maps/health/AADTA-Health-and-Fitness)

Degree Requirements

Total credits required to earn this degree: 19 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

Program Requirements

Course Code	Course Title	Number of Credits
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	5 3

Recommended Electives

Course Code	Course Title	Number of Credits
HLTH 106	Health and Wellness	2
PHED 171	Prevention and Care of Athletic Injuries	3

Other PHED Activity Courses

Program Outcomes

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.

Notes

Revised February 2020 (effective Spring 2020)

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.

General AA-DTA

Associate in Arts - Direct Transfer Agreement (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

Total credits required to earn this degree: 90 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**
  15 credits: ENGL& 101 English Composition I ***AND***
  (ENGL& 102 Composition II *OR* ENGL& 235 Technical Writing) ***AND***
  (CMST& 220 Public Speaking *OR* CMST& 230 Small Group Communication).
- **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*, 121, 122, 123, 131, 132, 133, 141*, 142*, 143*, 151*, 152*, 200, 224, 226, 227, 228, 230, AMERICAN SIGN LANGUAGE 121, 122, 123, COMMUNICATION STUDIES& 210, 220, 230, 240, DANCE 100*, 105*, 110*, 151*, 152*, 153*, 251*, 252*, 253*, DRAMA 106*, 107*, 108*, DRAMA& 101, ENGLISH 204, 215, 233, 245, 256, 270, 280, ENGL& 111, 112, 235, 236, 237, 238, 244, 254, HISTORY& 126, HUMANITIES 104, 107, 109, 120, 124, 125, 126, 131, 150, 164, 210, 230, 250, 251, 255, HUM& 116, 117, 118, MUSIC 100, 106, 107, 108, 115*, 121*, 122*, 123*, 130*, 131*, 132*, 133*, 135*, 150*, 151*, 152*, 153*, 176*, 177*, 178*, 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, CRIMINAL JUSTICE 101, 105, 106, 110, 154, 184, ECONOMICS 105, ECON& 201, 202, EDUCATION 115, HISTORY 117, 127, 128, 136, 137, 205, 214, 215, 237, 254, POLITICAL SCIENCE 101, 202, 203, 204, 220,

PSYCHOLOGY 100, 150, 198, 200, 220, 250, 255, 298, SOCIOLOGY 101, 210, 225, SUBSTANCE USE DISORDER STUDIES 101

- **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**, 127, 130**, 150**, 160**, 179**, 221**, 222**, 223**, 241**, 242**, 260**, 297, 298, NUTRITION 101, 201, 298, EARTH SCIENCES: ASTRONOMY 101**, EARTH SCIENCE 104**, 105**, 109**, ENVIRONMENTAL SCIENCE 100, 215**, GEOGRAPHY 105**, 297**,GEOLOGY 101**, 105**, 118**, 124, 208**, 297**, OCEANOGRAPHY 101**, GENERAL SCIENCES: BUSINESS 207, COMPUTER SCIENCE 270, ENGINEERING 106, 210, MATH 107, 125, 131, 132, 141, 142, 146, 148, 151, 152, 153, 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, COMMUNICATION STUDIES 240, EDUCATION 202, 205, ENGLISH 238, 245, 254, 280, HISTORY 126, 127, 128, 205, 215, HUMANITIES 104, 131, 164, 210, SOCIOLOGY 101, 201, 210, 225, SPANISH 121, 122, 123

Program Requirements

- A course cannot be credited toward more than one distribution or skill area, except Diversity courses.
- Cross listed courses can count only once for credit. Check course catalog or meet with an advisor.
- “Pass” grade not allowed for the Communications, Quantitative Skills, Humanities, Social Sciences, Natural Sciences, or Diversity requirements. Check with your intended transfer university for minimum grade requirements.
- Degree 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
- Courses listed are subject to change; see the online College Catalog and/or College Catalog Addendum.

Program Outcomes

Students completing this program should acquire 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.
- Quantitative Literacy: Reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations.
- Teamwork: Facilitate a team's ability to achieve a desired goal or outcome.

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

Revised June 2025 (effective Summer 2025)

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.

General AA-DTA Online

Associate in Arts - Direct Transfer Agreement (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

Total credits required to earn this degree: 90 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**
  15 credits: ENGL& 101 English Composition I ***AND***
  (ENGL& 102 Composition II *OR* ENGL& 235 Technical Writing) ***AND***
  (CMST& 220 Public Speaking *OR* CMST& 230 Small Group Communication).
- **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& 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, CRIMINAL JUSTICE& 110, ECONOMICS 105, ECON& 201, 202, EDUCATION& 115, HISTORY& 128, 136, 137, 205, 254, POLITICAL SCIENCE& 202, PSYCHOLOGY& 100, 150, 200, 255, SOCIOLOGY 101, SUBSTANCE USE DISORDER STUDIES 101
- **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 100, 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, HISTORY 128, 205, HUMANITIES 104, 210, SOCIOLOGY 101, SPANISH 121, 122, 123

Program Requirements

- A course cannot be credited toward more than one distribution or skill area, except Diversity courses.
- Cross listed courses can count only once for credit. Check course catalog or meet with an advisor.
- “Pass” grade not allowed for the Communications, Quantitative Skills, Humanities, Social Sciences, Natural Sciences, or Diversity requirements. Check with your intended transfer university for minimum grade requirements.
- Degree 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
- Courses listed are subject to change; see the online College Catalog and/or College Catalog Addendum.

Program Outcomes

Students completing this program should acquire 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.
- Quantitative Literacy: Reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations.
- Teamwork: Facilitate a team's ability to achieve a desired goal or outcome.

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

Revised June 2025 (effective Summer 2025)

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.

General Business

Certificate of Proficiency (COP)

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 Certificate of Proficiency (COP) (lowercolumbia.edu/program-maps/business/COP-General-Business)

Degree Requirements

Total credits required to earn this degree: 45

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

Course Code	Course Title	Number of Credits
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

Program Outcomes

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 Quantitative Literacy).
- Interact effectively with individuals and groups (GS Teamwork).

Notes

Revised February 2021 (effective Summer 2021)

Consult an advisor if you have any questions.

Group Fitness Instructor Certificate

Certificate of Completion (COC)

Covers content and skills necessary to become effective, credentialed group fitness instructors, and to prepare for the American Council on Exercise (ACE) Group Fitness Instructor Exam. Examines strategies for leading a variety of fitness classes effectively, ensuring participant safety and enjoyment. Explores different class formats, such as: cardio, strength, specialty, and mind-body classes.

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

- Fitness Specialist Certificate of Completion (COC) (Group Fitness Instructor) (lowercolumbia.edu/program-maps/health/COC-Group-Fitness-Instructor-Certificate)

Degree Requirements

Total credits required to earn this degree: 12

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

Program Requirements

Course Code	Course Title	Number of Credits
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
HLTH 135	Food and Fitness	2
PHED 104 ***OR*** PHED 105 ***OR*** PHED 106	Pilates and Stretch ***OR*** Pilates & Yoga - Beginning ***OR*** Yoga for Beginners	1
PHED 120	Cross-Training	2
PHED 285	Fitness Marketing	3
PHED 296	Group Exercise Instruction	3

Program Outcomes

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

- Create engaging and effective class plans tailored to diverse participant needs and fitness levels. (GS - Critical Thinking)
- Demonstrate teaching skills necessary to instruct a variety of fitness classes, including the skills of; cueing, demonstration, class set-up, making modifications, and leading.
- Understand the foundational priciples of exercise science, anatomy and physiology, and kinesiology and how they apply to the planning and implementing of a fitness class.
- Employ strategies to inspire, motivate, and communicate with class participants, fostering a positive and inclusive group atmosphere. (GS - Communication)
- Recognize best practices for safety and how to mitigate risks associated with group exercise.

Notes

Revised November 2024 (effective Summer 2025)

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.

Health & Fitness Focus

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

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 & Fitness Focus Associate in Arts - Direct Transfer Agreement (AA-DTA) (with Specialist Certificates: Group Fitness, Health Coach, and Personal Training) (lowercolumbia.edu/program-maps/health/AADTA-Health-and-Fitness)

Degree Requirements

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

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  15 credits: ENGL& 101 English Composition I ***AND***
  (ENGL& 102 Composition II *OR* ENGL& 235 Technical Writing) ***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 D*istribution List*. No more than 3 PE activity courses may be taken as electives. PE activity courses are marked with a *.

Recommended Electives

Course Code	Course Title	Number of Credits
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	Weight Training	2
*PHED 228	Advanced Weight Training	2
*PHED 152/252	Personalized Fitness	2

Course Code	Course Title	Number of Credits
PHED 171	Prevention & Care of Athletic Injuries	3
PHED 285	Fitness Marketing	3
PHED 288	Cooperative Education	1
PHED 295	Personal Training Instruction	5
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.

Program Outcomes

Students completing this program should acquire 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.
- Quantitative Literacy: Reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations.
- Teamwork: Facilitate a team's ability to achieve a desired goal or outcome.

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.

Notes

Revised June 2024 (effective Summer 2024)

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

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.

Health Coach Certificate

Certificate of Completion (COC)

Covers content and skills necessary to become effective, credentialed health coaches and to prepare for the American Council on Exercise (ACE) Health Coach Certification Exam. Equips with the skills and knowledge needed to effectively guide clients in making sustainable lifestyle changes in the areas of nutrition, fitness, stress management, and overall well-being. Explores the interconnectedness of physical, emotional, and mental health. Prepares for the role of facilitator, collaborator and coach in the area of health, wellness and fitness.

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

- Fitness Specialist Certificate of Completion (COC) (Health Coach) (lowercolumbia.edu/program-maps/health/COC-Health-Coach)

Degree Requirements

Total credits required to earn this degree: 16

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

Program Requirements

Course Code	Course Title	Number of Credits
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
HLTH 106	Health and Wellness	2
HLTH 135	Food and Fitness	2
HLTH 245	Health and Exercise Behavior Change	3
HLTH 265	Mind and Body Health	2
PHED 104 ***OR*** PHED 105 ***OR*** PHED 106	Pilates and Stretch ***OR*** Pilates & Yoga - Beginning ***OR***	1

Course Code	Course Title	Number of Credits
	Yoga for Beginners	
PHED 120 ***OR*** PHED 128	Cross-Training ***OR*** Weight Training	2
PHED 285	Fitness Marketing	3

Program Outcomes

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

- Utilize effective assessment tools to evaluate client health status, goals, and readiness for change. (GS - Critical Thinking)
- Incorporate strategies for nutrition, exercise, stress management and habit formation in assisting clients with developing personalized plans. (GS - Critical Thinking)
- Practice active listening and motivational interviewing skills to foster a supportive coaching environment. (GS - Communication)
- Educate clients on relevant health topics, enabling them to make informed decisions about their health.
- Identify and use tools for tracking progress and maintaing accountability.
- Adhere to professional ethics and confidentiality guidelines in client interactions.
- Develop marketing and business strategies to attract and retain clients.
- Understand the importance of cultural competency in coaching diverse populations.
- Stay informed about current trends, research, and best practices in health and wellness.
- Create specific wellness plans in conjunction with clients of varying needs and backgrounds. (GS - Critical Thinking)

Notes

Revised November 2024 (effective Summer 2025)

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.

History Focus

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

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 Focus Associate in Arts - Direct Transfer Agreement (AA-DTA) (lowercolumbia.edu/program-maps/social-science/AADTA-History)

Degree Requirements

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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  15 credits: ENGL& 101 English Composition I ***AND***
  (ENGL& 102 Composition II ***OR*** ENGL& 235 Technical Writing) ***AND***
  (CMST& 220 Public Speaking ***OR*** CMST& 230 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

Course Code	Course Title	Number of Credits
HIST& 126	World Civilizations I:DIV	5
HIST& 127	World Civilizations II:DIV	5
HIST& 128	World Civilizations III:DIV	5

Course Code	Course Title	Number of Credits
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 Washington and the Pacific Northwest	5

Program Outcomes

Students completing this program should acquire 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.
- Quantitative Literacy: Reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations.
- Teamwork: Facilitate a team's ability to achieve a desired goal or outcome.

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.

Notes

Revised June 2024 (effective Summer 2024)

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.

Industrial Maintenance Technician

Certificate of Proficiency (COP)

The Industrial Maintenance Technician Program is designed to equip individuals with the essential skills and knowledge to maintain, troubleshoot, and repair the machinery and equipment used in modern manufacturing and industrial environments. This program prepares students to work in diverse sectors such as manufacturing, energy, petrochemicals, food processing, pharmaceuticals, and more industries that rely heavily on automation and advanced technology.

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

- Industrial Maintenance Technician Certificate of Proficiency (COP) (lowercolumbia.edu/program-maps/trades/COP-Industrial-Maintenance-Technician)

Degree Requirements

Total credits required to earn this degree: 63

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  5 credits – ENGL& 101 English Composition I ***OR***
  ENGL 110 Industrial Communications ***OR***
  ENGL& 235 Technical Writing (ENGL& 101 required for OLTM*)
- **Quantitative Skills:**

  5 credits – MATH 106 Industrial Mathematics or higher (MATH& 107 or higher required for OLTM*)
- **Human Relations / Social Science / Diversity:**

  5 credits – BUS 144 Management of Human Relations ***OR***
  SOC& 101 Introduction to Sociology: DIV (SOC& 101 required for OLTM*)

Program Requirements

Course Code	Course Title	Number of Credits
CS 110	Introduction to Microcomputer Applications	3

Course Code	Course Title	Number of Credits
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
MFG 100	Foundational Skills for the Trades	2
MFG 105	Industrial Safety	3
MFG 140	Applied Hydraulics	4
PMFG 110	Industrial and Predictive Maintenance Fundamentals	5
PMFG 150	Electrical and Electronic Fundamentals	6
PMFG 201	Electrical Control Equipment	3
PMFG 202	Electric Motors	2
PMFG 210	Advanced Industrial Maintenance	5
IMIN 215	Programmable Logic Controllers	5
IMIN 230	Process Technology Equipment	4
IMIN 240	Instrumentation Fundamentals	5

Program Outcomes

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, Quantitative Literacy)
- Apply mathematical information to perform tasks in industrial technology. (GS - Quantitative Literacy)
- Interact effectively with individuals and groups. (GS - Teamwork)
- Display work appropriate behavior including positive attitude, timeliness and teamwork. (GS - 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 foundational maintenance tasks on common process manufacturing devices.

- Demonstrate competency in documenting and communicating work performed using trade specific language.

Notes

Revised January 2025 (effective Summer 2025)

*OLTM recommendations align with the requirements for LCC's Organizational Leadership and Technical Management BAS 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. Consult the LCC catalog for LCC graduation requirements.

Information Technology Systems

Associate in Applied Science (AAS)

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 Associate in Applied Science (AAS) (Plan 1) (lowercolumbia.edu/program-maps/info-tech/AAS-Information-Technology-Systems-Plan-1)
- Information Technology Systems Associate in Applied Science (AAS) (Plan 2) (lowercolumbia.edu/program-maps/info-tech/AAS-Information-Technology-Systems-Plan-2)

Degree Requirements

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

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

Course Code	Course Title	Number of Credits
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 236	Network and Systems Automation	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

Program Outcomes

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).
- Develop an understanding of cybersecurity principles, practices, and technologies in various IT environments.
- Research and assess new ideas and information in Information Technology (GS).
- Identify the importance of lifelong learning (GS).
- Apply core IT competency in servers, storage and virtualization.
- Function effectively as a 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.

Notes

Revised November 2024 (effective Summer 2025)

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.*

Machine Trades

Associate in Applied Science (AAS)

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 Associate in Applied Science (AAS) (lowercolumbia.edu/program-maps/trades/AAS-Machine-Trades)

Degree Requirements

Total credits required to earn this degree: 107 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  5 credits - ENGL 110 Industrial Communications ***OR***
  ENGL& 101 English Composition I
- **Quantitative Skills:**

  5 credits – MATH 106 Industrial Mathematics ***OR***

MATH& 107 Math in Society ***OR***
higher except for MATH& 131

- **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

Course Code	Course Title	Number of Credits
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.

Program Outcomes

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.

Notes

Revised December 2023 (effective Summer 2024)

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.

Machine Trades

Associate in Applied Science - Transfer (AAS-T)
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 Associate in Applied Science - Transfer (AAS-T) for LCC BAS-OLTM (lowercolumbia.edu/program-maps/trades/AAST-Machine-Trades-to-BAS-OLTM)

Degree Requirements

Total credits required to earn this degree: 110 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

Course Code	Course Title	Number of Credits
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

Course Code	Course Title	Number of Credits
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.

Program Outcomes

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.

Notes

Revised May 2023 (effective Summer 2023)

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.

Machinist

Certificate of Proficiency (COP)

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 Certificate of Proficiency (COP) (lowercolumbia.edu/program-maps/trades/COP-Machinist)

Degree Requirements

Total credits required to earn this degree: 65

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

Course Code	Course Title	Number of Credits
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 ***AND/OR*** Machine Shop I *(2-10 cr variable) for a combined total of 10 credits*	10

Program Outcomes

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.

Notes

Revised December 2021 (effective Summer 2022)

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.

Math Education

Associate in Math Education - DTA/MRP

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 Associate in Math Education - DTA/MRP (lowercolumbia.edu/program-maps/education/DTAMRP-Math-Education)

Degree Requirements

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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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 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.

Program Requirements

Course Code	Course Title	Number of Credits
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

Program Outcomes

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.

Notes

Revised April 2017 (effective Fall 2017)

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.

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.

Mechanical/ Civil/ Aeronautical/ Industrial/ Materials Science Engineering

AS-T Other Engineer/MRP

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 Other Engineer/MRP (2 year) (lowercolumbia.edu/program-maps/stem/AST-Mechanical-Civil-Aeronautical-Industrial-Materials-Science-Engineering-2-year)
- Mechanical/ Civil/ Aeronautical/ Industrial/ Materials Science Engineering AS-T Other Engineer/MRP (3 year) (lowercolumbia.edu/program-maps/stem/AST-Mechanical-Civil-Aeronautical-Industrial-Materials-Science-Engineering-3-year)

Degree Requirements

Total 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

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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.

Program Requirements

Pre-Major Requirements (40 credits)

Course Code	Course Title	Number of 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

Course Code	Course Title	Number of Credits
CS 170	Fundamentals of 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

Program Outcomes

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.

Notes

Revised December 2020 (effective Fall 2021)

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

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.

Medical Assisting

Certificate of Proficiency (COP)

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 Certificate of Proficiency (COP) (lowercolumbia.edu/program-maps/health/COP-Medical-Assisting)

Degree Requirements

Total credits required to earn this degree: 70-80. For any course to count toward this certificate, a grade of C or better is required.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

Course Code	Course Title	Number of Credits
AH 114 ***OR* **PSYC& 200	Healthcare Communication Skills ***OR*** Lifespan Psychology	2 ***OR*** 5
CS 110 ***OR*** BTEC 145	Intro to Microcomputer Applications ***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

Course Code	Course Title	Number of Credits
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

Program Outcomes

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.

Notes

Revised December 2021 (effective Summer 2022)

MEDA Program Director permission required to enroll.

**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.

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.

Medical Assisting

Associate in Applied Science - Transfer (AAS-T)
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 Associate in Applied Science - Transfer (AAS-T) for LCC BAS-OLTM (lowercolumbia.edu/program-maps/health/AAST-Medical-Assisting-BAS-OLTM-option)

Degree Requirements

Total credits required to earn this degree: 90. For any course to count toward this degree, a grade of C or better is required.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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.
- **Electives:**
  5-6 college-level credits to meet the 90 credit minimum. Recommended: MEDA 205 ***OR*** AH 166.
  No more than 15 credits may be taken from the Restricted Course List on the Distribution List.

Program Requirements

Course Code	Course Title	Number of Credits
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*** Human A & P 2	5 ***OR*** 5 ***AND*** 5
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

Course Code	Course Title	Number of Credits
MEDA 165	Medications in Medical Assisting & Diseases	5
MEDA 190	Medical Assisting to Preceptorship	6
MEDA 195	Medical Assisting Seminar	1

Program Outcomes

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.

Notes

Revised April 2025 (effective Summer 2025)

MEDA Program Director permission required to enroll.

**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.

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.

Medical Assisting

Associate in Applied Science (AAS)

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 Associate in Applied Science (AAS) (lowercolumbia.edu/program-maps/health/AAS-Medical-Assisting)

Degree Requirements

Total credits required to earn this degree: 90. For any course to count toward this degree, a grade of C or better is required.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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 college-level credits to meet the 90 credit minimum. Recommended: MEDA 205 ***OR***

AH 166.
No more than 15 credits may be taken from the Restricted Course List on the Distribution List.

Program Requirements

Course Code	Course Title	Number of Credits
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 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*** Human A & P 2	5 ***OR*** 5 ***AND*** 5
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

Course Code	Course Title	Number of Credits
MEDA 195	Medical Assisting Seminar	1

Program Outcomes

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.

Notes

Revised April 2025 (effective Summer 2025)

MEDA Program Director permission required to enroll.

**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.

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.

Medical Billing & Coding Specialist

Certificate of Proficiency (COP)

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 & Coding Specialist Certificate of Proficiency (COP) (lowercolumbia.edu/program-maps/business/COP-Medical-Billing-and-Coding-Specialist)

Degree Requirements

Total credits required to earn this degree: 73 credits and pass each course listed in program requirements with a C or above

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

Course Code	Course Title	Number of Credits
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 160	Medical Scribe	3
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

Course Code	Course Title	Number of Credits
BTEC 168	Billing & Coding Exam Certification Preparation	2
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
MEDA 120	Survey of Human A & P	5
BUS 294	Career Success	2

Program Outcomes

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 Quantitative Literacy)
- Interact effectively with individuals and groups (GS Teamwork)
- 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

Notes

Revised December 2023 (effective Summer 2024)

Consult an advisor if you have any questions.

Medical Office Administration

Associate in Applied Science - Transfer (AAS-T)
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 Associate in Applied Science - Transfer (AAS-T) for LCC BAS-OLTM (lowercolumbia.edu/program-maps/business/AAST-Medical-Office-Administration-to-BAS-OLTM)

Degree Requirements

Total credits required to earn this degree: 112-115 and pass each course listed in the program requirements with a C or better.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

Program Requirements

Course Code	Course Title	Number of Credits
ACCT 101	Intro to Accounting Concepts	5
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

Course Code	Course Title	Number of Credits
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

Additional Program Requirements

In addition to the core program requirements above, students must select one area of expertise from the following areas of study:

Medical Billing & Coding

Course Code	Course Title	Number of Credits
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
BTEC 168	Billing & Coding Exam Cert Prep	2
MEDA 120	Survey of Human Anatomy & Physiology	5

Community, Health, & Wellness Advocate

Course Code	Course Title	Number of Credits
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

Program Outcomes

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 Quantitative Literacy)
- Interact effectively with individuals and groups (GS Teamwork)
- 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

Notes

Revised December 2023 (effective Summer 2024)

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.

Medical Office Administration

Associate in Applied Science (AAS)

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 Associate in Applied Science (AAS) (lowercolumbia.edu/program-maps/business/AAS-Medical-Office-Administration)

Degree Requirements

Total credits required to earn this degree: 118-121 and pass each course listed in the program requirements with a C or better.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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.

Program Requirements

Course Code	Course Title	Number of Credits
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 ***OR*** CS 110 ***AND*** BTEC 146	Intro to Business Technology ***OR*** Intro to Microcomputer Applications ***AND*** Powerpoint Fundamentals	5 ***OR*** 3 ***AND*** 2

Course Code	Course Title	Number of Credits
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

Additional Program Requirements

In addition to the core program requirements above, students must select one area of expertise from the following areas of study:

Medical Billing & Coding

Course Code	Course Title	Number of Credits
BTEC 160	Medical Scribe	3
BTEC 161	Intro to ICD-10 Coding, Part I (F)	5

Course Code	Course Title	Number of Credits
BTEC 162	Intro to ICD-10 Coding, Part II (W)	5
BTEC 163	CPT Coding (Sp)	5
BTEC 168	Billing & Coding Exam Cert Prep	2
MEDA 120	Survey of Human Anatomy & Physiology	5

Community, Health, & Wellness Advocate

Course Code	Course Title	Number of Credits
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

Program Outcomes

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 Quantitative Literacy)
- Interact effectively with individuals and groups (GS Teamwork)
- 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

Notes

Revised December 2023 (effective Summer 2024)

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.

Medical Reception

Certificate of Proficiency (COP)

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 Certificate of Proficiency (COP) (lowercolumbia.edu/program-maps/business/COP-Medical-Reception)

Degree Requirements

Total credits required to earn this degree: 51 credits and pass each course listed in program requirements with a C or better.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

Course Code	Course Title	Number of Credits
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 ***OR***	Medical Terminology I ***OR***	3

Course Code	Course Title	Number of Credits
MEDA 101	Medical Vocabulary I	
BTEC 182 ***OR*** MEDA 102	Medical Terminology II ***OR*** Medical Vocabulary II	3
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

Program Outcomes

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 Quantitative Literacy)
- Interact effectively with individuals and groups (GS Teamwork)
- 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

Notes

Revised December 2021 (effective Summer 2022)

Consult an advisor if you have any questions.

Music

Associate in Music - DTA/MRP

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 Associate in Music - DTA/MRP (lowercolumbia.edu/program-maps/arts/DTA-MRP-Music)

Degree Requirements

Total credits required to earn this degree: 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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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 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 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 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.
- **Required Program Electives:**
  44 credits - No more than 15 credits may be taken from the *Restricted Course List* on the *Distribution List*.

Program Requirements

Course Code	Course Title	Number of Credits
MUSC& 141/142/143	Music Theory I,II,III	5 ea.
MUSC 111/112/113	Ear Training I,II,III	1 ea.

Course Code	Course Title	Number of Credits
MUSC& 241/242/243	Music Theory IV, V, VI	5 ea.
MUSC 176/177/178, 276/277/278	Individual Instruction I-VI	1 ea.
MUSC 106/107/108	Keyboard Skills I,II,III	1 ea.

Ensembles:

12 total credits of ensemble are required from among the options below. Recommended enrollment is one ensemble per quarter.

Course Code	Course Title	Number of Credits
MUSC 150*	Symphonic Band	2
MUSC 130*	Jazz Ensemble	2
MUSC 121/122/123, 221/222/223	Concert Choir I-VI	2 ea.

* Repeated enrollment in MUSC 150 and 130 is allowed.

Program Outcomes

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

- 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 Teamwork)
- 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 Quantitative Literacy)
- 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)

Notes

Revised March 2025 (effective Summer 2025)

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.

Music Focus

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

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.

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

- Music Focus Associate in Arts - Direct Transfer Agreement (AA-DTA) (lowercolumbia.edu/program-maps/arts/AADTA-Music)

Degree Requirements

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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  15 credits: ENGL& 101 English Composition I ***AND***
  (ENGL& 102 Composition II ***OR*** ENGL& 235 Technical Writing) ***AND***
  (CMST& 220 Public Speaking ***OR*** CMST& 230 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

Course Code	Course Title	Number of Credits
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

Course Code	Course Title	Number of Credits
MUSC 121/2/3, 221/2/3	Concert Choir I-VI	2 ea.
MUSC 150	Symphonic Band	2
MUSC 130	Jazz Ensemble	2

Program Outcomes

Students completing this program should acquire 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.
- Quantitative Literacy: Reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations.
- Teamwork: Facilitate a team's ability to achieve a desired goal or outcome.

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.

Notes

Revised November 2024 (effective Summer 2025)

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 - Associate in Pre-Nursing

Associate in Pre-Nursing - Direct Transfer Agreement (APN-DTA/MRP)

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.

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

- Nursing - Associate in Pre-Nursing Associate in Pre-Nursing - Direct Transfer Agreement (APN-DTA/MRP) (lowercolumbia.edu/program-maps/health/APNDTAMRP-Pre-Nursing)

Degree Requirements

Total credits required to earn this degree: 90

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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")

Program Outcomes

Students completing this program should acquire 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.
- Quantitative Literacy: Reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations.
- Teamwork: Facilitate a team's ability to achieve a desired goal or outcome.

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.

Notes

Revised September 2024 (effective Summer 2024)

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 - LPN2RN Campus Based Opt-in Option

Associate in Nursing - Direct Transfer Agreement (AN-DTA/MRP)

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 Board of Nursing (WABON).

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

- Nursing - LPN2RN Campus Based Opt-in Option Associate in Nursing - Direct Transfer Agreement (AN-DTA/MRP) (lowercolumbia.edu/program-maps/health/ANDTAMRP-Nursing-LPN2RN-Campus-Based-Opt-in-Option)

Degree Requirements

Total credits required to earn this degree: 135

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

Course Code	Course Title	Number of Credits
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

Course Code	Course Title	Number of Credits
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

Program Outcomes

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.

Notes

Revised May 2023 (effective Summer 2023)

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 courswork. 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.

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 form the program. Please refer to the Nursing Program website Practicum requirements, as well as the DSHS Secretary's List of Disqualifying Crimes.

Nursing - LPN2RN eLearning

Associate in Nursing - Direct Transfer Agreement (AN-DTA/MRP)

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 Board of Nursing (WABON).

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

- Nursing - LPN2RN eLearning Associate in Nursing - Direct Transfer Agreement (AN-DTA/MRP) (lowercolumbia.edu/program-maps/health/ANDTAMRP-Nursing-LPN2RN-eLearning)

Degree Requirements

Total credits required to earn this degree: 135

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

Program Requirements

Course Code	Course Title	Number of Credits
NURS 150	Pharmacology for Nursing I	2
NURS 151	Nursing Concepts in Health and Illness I	3
NURS 152	Nursing Concepts in Health and Illness II	5
NURS 153	Nursing Concepts in Health and Illness III	5
NURS 160	Skills in Nursing	2
NURS 161	Nursing Practicum I	3
NURS 162	Nursing Practicum II	5
NURS 163	Nursing Practicum III	5
NURS 242	Nursing Throughout the Lifespan	5
NURS 244	Comprehensive Medical Surgical Nursing I	5
NURS 245	Comprehensive Medical Surgical Nursing II	5
NURS 246	Skills Lab	5
NURS 247	Clinical Practicum	8
NURS 248	Advanced Clinical Practicum	5

Total Credits: 60

Program Outcomes

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.

Notes

Revised November 2024 (effective Summer 2025)

*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.

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 re quirement.

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 form the program. Please refer to the Nursing Program website Practicum requirements, as well as the DSHS Secretary's List of Disqualifying Crimes.

Nursing - Registered Nurse

Associate in Nursing - Direct Transfer Agreement (AN-DTA/MRP)

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 Board of Nursing (WABON).

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

- Nursing - LPN2RN Campus Based Opt-in Option Associate in Nursing - Direct Transfer Agreement (AN-DTA/MRP) (lowercolumbia.edu/program-maps/health/ANDTAMRP-Nursing-LPN2RN-Campus-Based-Opt-in-Option)
- Nursing - LPN2RN eLearning Associate in Nursing - Direct Transfer Agreement (AN-DTA/MRP) (lowercolumbia.edu/program-maps/health/ANDTAMRP-Nursing-LPN2RN-eLearning)
- Nursing - Registered Nurse Associate in Nursing - Direct Transfer Agreement (AN-DTA/MRP) (lowercolumbia.edu/program-maps/health/ANDTAMRP-Nursing)

Degree Requirements

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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

Program Requirements

Course Code	Course Title	Number of Credits
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

Program Outcomes

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.

Notes

Revised May 2023 (effective Summer 2023)

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.

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 re quirement.

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 form the program. Please refer to the Nursing Program website Practicum requirements, as well as the DSHS Secretary's List of Disqualifying Crimes.

Nursing - RN to BSN

Bachelor of Science in Nursing (BSN)

This degree option is designed for licensed registered nurses (RNs) who have completed an associate degree from an accredited college or nursing program. Learning focuses on community and population health, leadership, team coordination and collaboration, quality assurance and improvement, care coordination and case management, and application of research and evidence-based practice. The curriculum is designed to include clinical reasoning skills, problem solving, and critical thinking at the level of a bachelor-prepared RN. Graduates from the RN to BSN program are prepared to apply for advanced degree programs.

Admission Requirements

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:

- BSN application packet.
- Transcript demonstrating earned associate degree from a nationally accredited nursing program within an institutionally accredited college or university.
- Transcript(s) demonstrating a grade of C or higher in all required pre-nursing and nursing courses and a cumulative college GPA of 2.5 or higher.

- Transcript demonstrating completion of MATH& 146 or equivalent statistics course with a grade of C or above.
- Unencumbered Washington State RN licensure. Students in the final year of a Washington State Nursing Care Quality Assurance Commission (NCQAC) approved associate degree nursing program may be admitted, but must take and pass the NCLEX-RN prior to beginning the RN to BSN curriculum (passing the NCLEX-RN provides 30 credits toward the BSN).

The program offers two options, one for graduates from programs offering the Washington State Associate in Nursing Direct Transfer Agreement with Major Ready Pathway (AN-DTA/MRP) degree and one for graduates of programs without the AN-DTA/MRP.

Additional Admission Requirements

- Students must be able to pass a Washington State Patrol criminal background check prior to beginning classes within the RN to BSN program.
- Students must be able to comply with the LCC Nursing Program's clinical requirements (lowercolumbia.edu/programs/health/nursing#clinical-requirements) for placement in the RN to BSN field experience.

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

- Nursing - RN to BSN Bachelor of Science in Nursing (BSN) (Full-Time AN-DTA/MRP Graduate) (lowercolumbia.edu/program-maps/health/ANDTAMRP-BSN-Nursing-RN-to-BSN-full-time)
- Nursing - RN to BSN Bachelor of Science in Nursing (BSN) (Full-Time Non-AN-DTA/MRP Graduate) (lowercolumbia.edu/program-maps/health/Non-ANDTAMRP-BSN-Nursing-RN-to-BSN-full-time)
- Nursing - RN to BSN Bachelor of Science in Nursing (BSN) (Part-Time AN-DTA/MRP Graduate) (lowercolumbia.edu/program-maps/health/ANDTAMRP-BSN-Nursing-RN-to-BSN-part-time)
- Nursing - RN to BSN Bachelor of Science in Nursing (BSN) (Part-Time Non-AN-DTA/MRP Graduate) (lowercolumbia.edu/program-maps/health/Non-ANDTAMRP-BSN-Nursing-RN-to-BSN-part-time)

Degree Requirements

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 2.5 in the program requirements. RN to BSN students with the AN-DTA/MRP will only need to complete coursework at the senior level (45 credits) as 15 upper-division credits are included in the AN-DTA/MRP and 30 are applied with RN licensure. RN to BSN students with other types of associate degrees may need up to 15 additional upper-level general education credits (total 60 credits).

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

The following courses must be completed prior to a bachelor's degree obtainment. Some courses may be included in the associate degree or be completed during the RN to BSN 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**
  - 5 credits - ENGL& 101 English Composition I
  - 5 credits - ENGL& 102 English Composition II, CMST& 220 Public Speaking ***OR*** CMST 330 Professional/Organizational Communications (CMST 330 required for non AN-DTA/MRP grads)
- **Quantitative Skills: 5 credits**

  MATH& 146 Introduction to Statistics
- **Natural Science: 20 credits**
  - 5 credits - BIOL& 241 Human A & P 1
  - 5 credits - BIOL& 242 Human A & P 2
  - 5 credits - BIOL& 260 Microbiology
  - 5 credits - CHEM& 121 Intro to Chemistry
- **Humanities: 5 credits**

  OLTM 440 Ethics and Leadership: Leading and Managing in a Diverse Society: DIV (OLTM 440 required for non AN-DTA/MRP grads) ***OR***
  5 credits of legal and ethical issues in healthcare included in AN-DTA/MRP
- **Social Science: 10 credits**
  - 5 credits - PSYC& 200 Lifespan Psychology
  - 5 credits - PSYC 320 Leadership and Organizational Psychology (PSYC 320 required for non AN-DTA/MRP grads) ***OR***
    5 credits of psychosocial nursing included in AN-DTA/MRP
- **Diversity: 5 credits**

  OLTM 440 Ethics and Leadership: Leading and Managing in a Diverse Society: DIV ***OR***
  Another course from the *Diversity Course List*

All upper level general education requirements are included in the AN-DTA/MRP degree. For graduates of nursing programs with other types of associate degrees, the following general education courses (total 15 credits) must be completed prior to graduation:

Course Code	Course Title	Number of Credits
CMST 330	Professional/Organizational Communications	5
PSYC 320	Leadership and Organizational Psychology	5
OLTM 440	Ethics and Leadership: Leading and Managing in a Diverse Society: DIV	5

Program Requirements

Nursing Core

Course Code	Course Title	Number of Credits
NURS 400	Quality, Safety, and Equity in Nursing Practice	5
NURS 405	Research and Evidence-Based Nursing Practice	5
NURS 410	Community and Public Health Nursing	5
NURS 415	Leadership for Organizational Change	5
NURS 420	Health Information Technology in Nursing	5
NURS 430	Nursing Community Care Field Experience	5

Nursing Electives

Course Code	Course Title	Number of Credits
NURS 435	Historical and Theoretical Influences on Current Nursing Practice	5
NURS 440	Current Trends in Healthcare Policy	5
ECON 445	Healthcare Economics	5

AN-DTA/MRP Graduates	Non AN-DTA/MRP Graduates
Prelicensure - 135 credits total • Associate Degree Program (90 credits) • RN licensure as a result of passing the NCLEX-RN (30 credits) • General education included in the AN-DTA/MRP (15 credits)	Prelicensure - 120 credits total • Associate Degree Program (90 credits) • RN licensure as a result of passing the NCLEX-RN (30 credits)
RN to BSN program - 45 credits total • Nursing core (30 credits) • Nursing elective course (15 credits)	RN to BSN program - 60 credits total • Nursing core (30 credits) • General education (15 credits)
180 credits	**180 credits**

AN-DTA/MRP Graduates	Non AN-DTA/MRP Graduates
	• Nursing elective courses (15 credits)
180 credits	**180 credits**

Program Outcomes

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

1. Apply a systems-based approach to quality improvement in order to ensure safe, quality, and equitable care (GS - critical thinking, teamwork).
2. Demonstrate leadership skills in promoting collaboration among members of the interdisciplinary healthcare team (GS - critical thinking, communication, teamwork).
3. Apply analytic and clinical reasoning in professional nursing practice (GS - critical thinking, communication, quantitative literacy).
4. Promote equitable and inclusive health and wellness in diverse community and public health settings (GS - critical thinking, communication, teamwork).
5. Demonstrate accountability for personal and professional growth, leadership development, and professional values in nursing practice (GS - critical thinking, communication).
6. Demonstrate scholarly inquiry as a member of the interdisciplinary team (GS - critical thinking, communication, teamwork).
7. Implement holistic, person-centered care in the professional nurse role (GS - critical thinking, communication).
8. Ultilize healthcare informatics and other technologies to promote delivery of equitable, safe, quality, and cost-effective person- and population-centered care (GS - critical thinking, communication, quantitative literacy, teamwork).

Notes

Revised July 2023 (effective Summer 2024)

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.

Nursing Assistant

Certificate of Completion (COC)

The Nursing Assistant Certificate provides the content and experiences for students to achieve mastery in the state-defined competencies required to assist in giving basic nursing care to residents/clients under the supervision of a licensed nurse as directed by the Washington Administrative Code (WAC) 246-841A-400. Upon completion of this course, students will be eligible to register for WA state competency exams to obtain their Nursing Assistant Certified licensure.

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 Certificate of Completion (COC) (lowercolumbia.edu/program-maps/health/COC-Nursing-Assistant)

Degree Requirements

Total credits required to earn this degree: 7

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

Program Requirements

Course Code	Course Title	Number of Credits
NURS 90	Nursing Assistant	7

Program Outcomes

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

- Demonstrate mastery of basic technical skills, which will help the resident/client toward an optimal level of functioning or a peaceful death. (GS - Critical Thinking)
- Demonstrate mastery of personal care skills.
- Identify individual psychosocial, cultural, and religious diversity, which can affect resident care.
- Apply principles and skills of restorative nursing when providing care.
- Apply knowledge of ethical and legal principles when providing care.
- Utilize effective oral and written communication skills with residents/clients, families, and other healthcare workers. (GS - Communication)
- Utilize principles of infection control. (GS - Critical Thinking, Teamwork)
- Discuss Blood-Borne Pathogen (BBP) infection prevention and control principles within the scope of the nursing assistant.
- Utilize principles of safety/emergency procedures when providing care. (GS - Communication, Critical Thinking, Teamwork)
- Discuss the nursing assistant's scope of practice and related laws and regulations. (GS - Critical Thinking)
- Demonstrate caring behaviors as identified in the Clinical Evaluation tool.

Notes

Revised March 2025 (effective Summer 2025)

- Nursing 90 is open to all students.
- Grade of C+ or higher is required for Certificate of Completion.
- This certificate of completion program meets Washington State Board of Nursing requirements for an approved Nursing Assistant Program. Students who complete the theory and lab elements of the NURS 90 course will also complete the Washington State skills competency exam within the program. Students receiving the Nursing Assistant Certificate of Completion can then take their state written/oral exam to obtain their Washington State Nursing Assistant Certified credential.

Organizational Leadership and Technical Management

Bachelor in Applied Science (BAS)

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.

Admission Requirements

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 to 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.

Students must apply to the program and complete or submit the following:

- BAS application: packet available on LCC's BAS-OLTM webpage: https://lowercolumbia.edu/bachelors-degrees/bas-oltm/
- 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

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

- Organizational Leadership and Technical Management Bachelor in Applied Science (BAS) (Full Time) (lowercolumbia.edu/program-maps/business/BAS-OLTM-FT)
- Organizational Leadership and Technical Management Bachelor in Applied Science (BAS) (Part Time) (lowercolumbia.edu/program-maps/business/BAS-OLTM-PT)

See below for a list of AAS degrees that transfer directly to the BAS-OLTM program:

- Accounting Technician Associate in Applied Science - Transfer (AAS-T) for LCC BAS-OLTM (lowercolumbia.edu/program-maps/business/AAST-Accounting-Technician-to-BAS-OLTM)

- Administrative Services Manager Associate in Applied Science - Transfer (AAS-T) for LCC BAS-OLTM (lowercolumbia.edu/program-maps/business/AAST-Administrative-Services-Manager-to-BAS-OLTM)
- Automotive Technology Associate in Applied Science - Transfer (AAS-T) for LCC BAS-OLTM (lowercolumbia.edu/program-maps/trades/AAST-Automotive-Technology-to-BAS-OLTM)
- Business Management Associate in Applied Science - Transfer (AAS-T) for LCC BAS-OLTM (lowercolumbia.edu/program-maps/business/AAST-Business-Management-to-BAS-OLTM)
- Diesel/Heavy Equipment Technology Associate in Applied Science - Transfer (AAS-T) for LCC BAS-OLTM (lowercolumbia.edu/program-maps/trades/AAST-Diesel-Heavy-Equipment-to-BAS-OLTM)
- Information Technology Systems Associate in Applied Science (AAS) (BAS-OLTM Option) (lowercolumbia.edu/program-maps/info-tech/AAST-Information-Technology-Systems-to-BAS-OLTM)
- Machine Trades Associate in Applied Science - Transfer (AAS-T) for LCC BAS-OLTM (lowercolumbia.edu/program-maps/trades/AAST-Machine-Trades-to-BAS-OLTM)
- Medical Assisting Associate in Applied Science - Transfer (AAS-T) for LCC BAS-OLTM (lowercolumbia.edu/program-maps/health/AAST-Medical-Assisting-BAS-OLTM-option)
- Medical Office Administration Associate in Applied Science - Transfer (AAS-T) for LCC BAS-OLTM (lowercolumbia.edu/program-maps/business/AAST-Medical-Office-Administration-to-BAS-OLTM)
- Substance Use Disorder Studies Associate in Applied Science - Transfer (AAS-T) for LCC BAS-OLTM (lowercolumbia.edu/program-maps/health/AAST-Substance-Use-Disorder-Studies-BAS-OLTM-option)
- Welding Associate in Applied Science - Transfer (AAS-T) for LCC BAS-OLTM (lowercolumbia.edu/program-maps/trades/AAST-Welding-to-BAS-OLTM)

Degree Requirements

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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**
  - 5 credits - ENGL& 101 English Composition I
  - 5 credits - CMST 330 Professional/Organizational Communications
- **Quantitative Skills:**

  5 credits - MATH& 107 Math in Society ***OR***
  higher (excluding MATH& 131)
- **Humanities:**
  - 5 credits - HUM 315 Ethics
  - 5 credits - OLTM 440 Ethics and Leadership
- **Natural Science:**

    - 5 credits - ENVS 440 Environmental Issues
    - 5 credits - Elective natural science with lab credits from the Natural Science *Distribution List*
- **Social Science:**
    - 5 credits - OLTM 300 Foundations of Leadership
    - 5 credits - OLTM 330 Entrepreneurship
    - 5 credits - OLTM 445 Global Systems & Change Management
    - 5 credits - PSYC 320 Leadership and Organizational Psychology
- **Diversity:**

  5 credits - OLTM 440 Ethics and Leadership

Program Requirements

Course Code	Course Title	Number of Credits
CMST 330	Professional/Organizational Communications	5
ENVS 440	Environmental Issues	5
HUM 315	Ethics	5
OLTM 300	Foundations of Leadership	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

Course Code	Course Title	Number of Credits
OLTM 460	Coaching and Mentoring	5
OLTM 465	Current Issues in Human Resource Management	5
OLTM 495	Capstone	5
PSYC 320	Leadership and Organizational Psychology	5

Program Outcomes

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 - Quantitative Literacy)
- Collaborate effectively with others within the context of a work environment. (GS - Teamwork)
- Construct a philosophy of leadership to guide action. (GS - Communication)
- Analyze strategies to effectively lead others to achieve a common goal. (GS - Teamwork)
- Deliberate the moral implications of workplace dilemmas utilizing ethical reasoning. (GS - Critical Thinking)
- Examine the significance of diversity and cultural awareness within the context of management and supervision. (GS - Critical Thinking)
- Analyze strategies and methods to facilitate improvements to organizational capacity and function. (GS - Quantitative Literacy and Critical Thinking)
- Implement effective organizational leadership strategies to supervise others. (GS - Teamwork)
- Research strategies for effective professional growth and continuous improvement. (GS - Critical Thinking and Communication)

Notes

Revised November 2024 (effective Summer 2025)

Grade of C or higher is required on all courses.

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.

Paraeducator

Certificate of Proficiency (COP)

This certificate prepares graduates for entry-level employment with school districts. Graduates acquire skills needed to become an important member of the instructional team, learning instructional strategies, behavior management, human development and interpersonal skills in the context of a diverse society. The program includes hands-on experiences in schools. This program will help open doors to a rewarding career as a paraeducator.

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

- Paraeducator Certificate of Proficiency (COP) (lowercolumbia.edu/program-maps/education/COP-Paraeducator)

Degree Requirements

Total credits required to earn this degree: 46

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  5 credits – ENGL& 101 English Composition I
- **Quantitative Skills:**

  5 credits –MATH& 132 Math for Elementary Educators 2
- **Human Relations/ Social Science:**

  5 credits – EDUC& 115 Child Development

Program Requirements

Course Code	Course Title	Number of Credits
EDUC& 101	Paraeducator Basics	3
MATH& 131	Math for Elementary Educators I	5
EDUC 191	Field Experience I	5
EDUC& 204	Inclusive Education-Birth through 21 focus	5
EDUC& 205	Intro to Education w/Field Experience: DIV	5
EDUC 246	Linguistically Diverse Education	3
EDUC 240	Diversity in Education	5

Program Outcomes

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

- Demonstrate appropriate strategies and techniques to provide instructional support to students of diverse populations.
- Assist licensed/certified staff with student instruction, behavior management and classroom preparation.

- Apply best practices in classroom management to optimize the potential for student learning.
- Practice ethical and legal standards of conduct.
- Demonstrate competence in written and oral communication, reading, and mathematics.

Notes

Revised May 2023 (effective Summer 2023)

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.

Personal Training Certificate

Certificate of Completion (COC)

Covers content and skills necessary to become effective, credentialed personal trainers and to prepare for the American Council on Exercise (ACE) Personal Trainer Certification Exam. Equips with the skills and knowledge necessary to effectively train individual clients, catering to specific needs and situations, in the area of physical fitness. Explores motivational and marketing strategies. Examines program designs to improve posture, movement, flexibility, balance, core function, cardiorespiratory fitness, muscular strength and endurance, and sports performance.

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

- Fitness Specialist Certificate of Completion (COC) (Personal Training) (lowercolumbia.edu/program-maps/health/COC-Personal-Training)

Degree Requirements

Total credits required to earn this degree: 18

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

Program Requirements

Course Code	Course Title	Number of Credits
BIOL 179	Human Biology & Exercise	5
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
HLTH 135	Food and Fitness	2
PHED 128	Weight Training	2
PHED 285	Fitness Marketing	3
PHED 295	Personal Training Instruction	5

Program Outcomes

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

- Perform fitness assessments to evaluate clients' current physical conditions, including strength, flexibility, and cardiovascular fitness.
- Develop strong communication skills to build rapport and trust with clients, facilitating open dialogue about goals and progress. (GS - Communication)
- Demonstrate a solid understanding of human anatomy, physiology and biomechanics as they relate to exercise.
- Create personalized exercise plans that meet individual client goals, abilities, and preferences, including modifications for special populations. (GS - Critical Thinking)
- Adhere to industry standards and ethical guidelines in all interactions with clients and peers.
- Utilize motivational strategies to inspire clients, enhance adherence, and foster a positive training environment. (GS - Critical Thinking)
- Understand the fundamentals of marketing, client retention, and business management for personal trainers.

Notes

Revised November 2024 (effective Summer 2025)

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.

Philosophy Focus

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

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 Focus Associate in Arts - Direct Transfer Agreement (AA-DTA) (lowercolumbia.edu/program-maps/social-science/AADTA-Philosophy)

Degree Requirements

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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  15 credits: ENGL& 101 English Composition I ***AND***
  (ENGL& 102 Composition II ***OR*** ENGL& 235 Technical Writing) ***AND***
  (CMST& 220 Public Speaking ***OR*** CMST& 230 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

Course Code	Course Title	Number of Credits
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

Program Outcomes

Students completing this program should acquire 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.
- Quantitative Literacy: Reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations.
- Teamwork: Facilitate a team's ability to achieve a desired goal or outcome.

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.

Notes

Revised June 2024 (effective Summer 2024)

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.

Physics

Associate in Science - Transfer (AS-T)

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 Associate in Science - Transfer (AS-T) (lowercolumbia.edu/program-maps/stem/AST-Physics)
- Physics Associate in Science - Transfer (AS-T) (Math Transfer Option) (lowercolumbia.edu/program-maps/stem/AST-Physics-Math-Transfer-Option)

Degree Requirements

Total 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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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
- **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.

Program Requirements

Pre-Major Requirements

Course Code	Course Title	Number of Credits
CHEM& 161*	General Chemistry w/Lab I	5
MATH& 153*	Calculus III	5
MATH& 254*	Calculus IV (was MATH 154)	5

Course Code	Course Title	Number of Credits
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 Electives

Course Code	Course Title	Number of Credits
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 Programming	5
MATH 240	Differential Equations	5

Program Outcomes

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.

Notes

Revised March 2023 (effective Fall 2023)

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

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.

Political Science Focus

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

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):

- Political Science Focus Associate in Arts - Direct Transfer Agreement (AA-DTA) (lowercolumbia.edu/program-maps/social-science/AADTA-Political-Science)

Degree Requirements

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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  15 credits: ENGL& 101 English Composition I ***AND***
  (ENGL& 102 Composition II ***OR*** ENGL& 235 Technical Writing) ***AND***
  (CMST& 220 Public Speaking ***OR*** CMST& 230 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

Course Code	Course Title	Number of Credits
POLS& 101	Intro to Political Science	5
POLS 107	Comparative Government	5
POLS& 202	US Government	5
POLS& 203	International Relations	5
POLS 220	The Law and Social Issues	5

Program Outcomes

Students completing this program should acquire 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.
- Quantitative Literacy: Reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations.
- Teamwork: Facilitate a team's ability to achieve a desired goal or outcome.

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.

Notes

Revised June 2024 (effective Summer 2024)

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.

Pre-Dental Hygiene

Associate in Arts & Sciences (AA)

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 Associate in Arts & Sciences (AA) (lowercolumbia.edu/program-maps/health/AA-Pre-Dental-Hygiene)

Degree Requirements

Total credits required to earn this degree: 97. Must have a cumulative grade point average (GPA) of at least 2.0.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

Course Code	Course Title	Number of Credits
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

Program Outcomes

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.

Notes

Revised March 2018 (effective Winter 2018)

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.

Pre-Law Focus

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

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 Focus Associate in Arts - Direct Transfer Agreement (AA-DTA) (lowercolumbia.edu/program-maps/social-science/AADTA-Pre-Law)

Degree Requirements

Total 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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  15 credits: ENGL& 101 English Composition I ***AND***
  (ENGL& 102 Composition II ***OR*** ENGL& 235 Technical Writing) ***AND***
  (CMST& 220 Public Speaking ***OR*** CMST& 230 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

Course Code	Course Title	Number of Credits
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

Program Outcomes

Students completing this program should acquire 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.
- Quantitative Literacy: Reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations.
- Teamwork: Facilitate a team's ability to achieve a desired goal or outcome.

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.

Notes

Revised June 2024 (effective Summer 2024)

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.

Psychology Focus

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

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 Focus Associate in Arts - Direct Transfer Agreement (AA-DTA) (lowercolumbia.edu/program-maps/social-science/AADTA-Psychology)

Degree Requirements

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 area.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  15 credits: ENGL& 101 English Composition I ***AND***
  (ENGL& 102 Composition II ***OR*** ENGL& 235 Technical Writing) ***AND***
  (CMST& 220 Public Speaking ***OR*** CMST& 230 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

Course Code	Course Title	Number of Credits
ANTH& 206	Cultural Anthropology	5
PSYC& 100	General Psychology	5
PSYC& 200	Lifespan Psychology	5
PSYC& 220	Psychological Disorders	5
SOC& 101	Intro to Sociology	5

Program Outcomes

Students completing this program should acquire 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.
- Quantitative Literacy: Reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations.
- Teamwork: Facilitate a team's ability to achieve a desired goal or outcome.

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.

Notes

Revised March 2025 (effective Summer 2025)

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.

Retail Management

Certificate of Completion (COC)

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 Certificate of Completion (COC) (lowercolumbia.edu/program-maps/business/COC-Retail-Management)

Degree Requirements

Total credits required to earn this degree: 38

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**
  5 credits - BUS 119 Business Communications
- **Human Relations / Social Science:**
  5 credits – BUS 144 Management of Human Relations.

Program Requirements

Course Code	Course Title	Number of Credits
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

Program Outcomes

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 Quantitative Literacy).

- Interact effectively with individuals and groups (GS Teamwork).

Notes

Revised October 2019 (effective Winter 2020)

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.

Sociology Focus

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

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 Focus Associate in Arts - Direct Transfer Agreement (AA-DTA) (lowercolumbia.edu/program-maps/social-science/AADTA-Sociology)

Degree Requirements

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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  15 credits: ENGL& 101 English Composition I ***AND***
  (ENGL& 102 Composition II ***OR*** ENGL& 235 Technical Writing) ***AND***
  (CMST& 220 Public Speaking ***OR*** CMST& 230 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

Course Code	Course Title	Number of Credits
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

Program Outcomes

Students completing this program should acquire 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.
- Quantitative Literacy: Reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations.
- Teamwork: Facilitate a team's ability to achieve a desired goal or outcome.

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).

Notes

Revised June 2024 (effective Summer 2024)

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.

Substance Use Disorder Studies

Associate in Applied Science (AAS)

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 Associate in Applied Science (AAS) (lowercolumbia.edu/program-maps/health/AAS-Substance-Use-Disorder-Studies)

Degree Requirements

Total credits required to earn this degree: 90-92 with a "C" or higher in the program requirements

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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& 160 General Biology with Lab: Cell/Molecular (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& 240 (was CMST 250) Intercultural Communications: DIV.
- **Electives:**

  8 credits minimum.

Program Requirements

Course Code	Course Title	Number of Credits
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

Course Code	Course Title	Number of Credits
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)

Course Code	Course Title	Number of 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	Psychological Disorders (PSYC& 220 not offered every quarter. Check with advisor.)	5
CJ 187	Crisis Intervention for Professionals	3

Program Outcomes

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.

Notes

Revised March 2025 (effective Summer 2025)

*These SUDS courses must be completed along with Math, English, and Natural Science requirements to be eligible for your field work credits.

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.

Substance Use Disorder Studies

Associate in Applied Science - Transfer (AAS-T)
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 Associate in Applied Science - Transfer (AAS-T) for LCC BAS-OLTM (lowercolumbia.edu/program-maps/health/AAST-Substance-Use-Disorder-Studies-BAS-OLTM-option)

Degree Requirements

Total credits required to earn this degree: 90-92 with a "C" or higher in the program requirements

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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 / Social Science:**
  5 credits – PSYC& 100 General Psychology.
- **Diversity:**
  5 credits – choose SOC& 101 Intro to Sociology:DIV ***OR***
  CMST& 240 (was CMST 250) Intercultural Communications:DIV.
- **Electives:**
  8 credits minimum.

Program Requirements

Course Code	Course Title	Number of Credits
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

Course Code	Course Title	Number of Credits
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)

Course Code	Course Title	Number of 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	Psychological Disorders (PSYC& 220 not offered every quarter. Check with advisor.)	5
CJ 187	Crisis Intervention for Professionals	3

Program Outcomes

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.

Notes

Revised March 2025 (effective Summer 2025)

*These SUDS courses must be completed along with Math, English, and Natural Science requirements to be eligible for your field work credits.

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.

Substance Use Disorder Studies Focus

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

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 Focus Associate in Arts - Direct Transfer Agreement (AA-DTA) (lowercolumbia.edu/program-maps/health/AADTA-Substance-Use-Disorder-Studies)

Degree Requirements

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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  15 credits: ENGL& 101 English Composition I ***AND***
  (ENGL& 102 Composition II *OR* ENGL& 235 Technical Writing) ***AND***
  (CMST& 220 Public Speaking *OR* CMST& 230 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.

Program Outcomes

Students completing this program should acquire 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.
- Quantitative Literacy: Reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations.
- Teamwork: Facilitate a team's ability to achieve a desired goal or outcome.

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 is applies to the study of human behavior
- Articulate the major concepts involved in chemical dependency and its treatment.

Notes

Revised June 2024 (effective Summer 2024)

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.

Teacher Education

Bachelor in Applied Science (BAS)

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. This program offers endorsements in elementary education, early childhood education, and English Language Learners (ELL).

Admission Requirements

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 246 - Linguistically Diverse Education
  - EDUC& 205 - Introduction to Education w/Field Experience ***OR*** EDUC& 202 Intro to Education
  - HIST 254 - History of Washington and the Pacific Northwest

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, elementary education, and English Language Learners (ELL). The early childhood education track provides specialized coursework for working with children and families in early care and education settings where teacher certification is not required.

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)

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 Bachelor in Applied Science (BAS) (Full-Time Cohort, Certificated Route) (lowercolumbia.edu/program-maps/education/BAS-Teacher-Education-FT-certificated)

- Teacher Education Bachelor in Applied Science (BAS) (Full-Time Cohort, Early Childhood Education) (lowercolumbia.edu/program-maps/education/BAS-Teacher-Education-FT-ECE)
- Teacher Education Bachelor in Applied Science (BAS) (Part-Time Cohort, Certificated Route) (lowercolumbia.edu/program-maps/education/BAS-Teacher-Education-PT-certificated)
- Teacher Education Bachelor in Applied Science (BAS) (Part-Time Cohort, Early Childhood Education) (lowercolumbia.edu/program-maps/education/BAS-Teacher-Education-PT-ECE)

Degree Requirements

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

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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 254 History of Washington and the Pacific Northwest
  - EDUC 319 Anti-Bias Education
- **Diversity: 10 credits**
  - EDUC& 205 Introduction to Education w/Field Experience ***OR*** EDUC& 202 Intro to Education
  - EDUC 319 Anti-Bias Education
- **Electives: 10 credits**

  An additional 10 credits from the distributions above

Program Requirements

Course Code	Course Title	Number of Credits
EDUC 300	Foundations of Teacher Education	5
EDUC 315	Equitable Instruction for Multilingual Learners	5
EDUC 319	Anti-Bias Education	5
EDUC 320	Language Arts for Teachers	5
EDUC 325	Intro to SPED	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 410	Science Methods	4
EDUC 414	Guidance Techniques	5
EDUC 420	Social Studies for Teachers	4
EDUC 429	Assessment	5
EDUC 430	Advanced Language and Literacy	4

In addition to core program requirements, students must select one of the following tracks prior to their senior year:

Track 1: Teacher Certification

Course Code	Course Title	Number of Credits
EDUC 401	Reflective Seminar I	1
EDUC 402	Reflective Seminar II	1
EDUC 403	Clinical Seminar in ELL Instruction	3
EDUC 411	Student Teaching I	5
EDUC 412	Student Teaching II	10

Course Code	Course Title	Number of Credits
EDUC 413	Student Teaching III: Clinical applications in ELL Instruction	2
EDUC 439	Portfolio and Professional Assessment	5

Additional Exit Requirements for Track #1 Certification

- Passing score of one or more PESB approved endorsement assessment(s). The WEST-E-ELL, 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/assessments/) .
- Successful completion of required clinical hours in the endorsement area you are seeking.
- Meet all requirements of OSPI for residency teacher certification.

Track 2: Early Childhood Education

Course Code	Course Title	Number of Credits
ECED 401	Reflective Practice I/ Coaching & Mentoring	1
ECED 402	Reflective Practice II/ Leadership	1
ECED 403	Reflective Practice III/ Advocacy	3
ECED 411	Student Teaching I	5
ECED 412	Student Teaching II	10
ECED 413	Student Teaching III	2
ECED 439 ***OR*** EDUC 439	Issues and Trends in Early Childhood Education ***OR*** Portfolio and Professional Assessment (required for certification)	5

Program Outcomes

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, Critical Thinking).

- 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. (GS - Communication, Teamwork)
- 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. (GS - Communication)
- 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)
- Analyze how students' diverse backgrounds and external stressors impact behavior to select and implement strategies that support each student's holistic 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, Quantitative Literacy)
- 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, Quantitative Literacy)
- 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. (GS - Critical Thinking)
- 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. (GS - Communication, Critical Thinking)
- Value ongoing professional development to ensure research-based best practices, alignment with state and national standards and changing district-wide curriculum protocols. (GS - Communication)
- 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, Critical Thinking)
- Empower educators with the specialized knowledge and skills necessary to effectively support English Language Learners (ELLs) in diverse educational settings, fostering their linguistic and academic development for equitable learning outcomes. (GS - Communication)

Notes

Revised November 2024 (effective Summer 2025)

Grade of C or higher is required in all EDUC prefix courses.

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.

Welding

Certificate of Proficiency (COP)

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 Certificate of Proficiency (COP) (lowercolumbia.edu/program-maps/trades/COP-Welding)

Degree Requirements

Total credits required to earn this degree: 58

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

Course Code	Course Title	Number of Credits
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

Program Outcomes

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 Quantitative Literacy)
- Interact effectively with individuals and groups. (GS Teamwork)
- 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.

Notes

Revised December 2021 (effective Summer 2022)

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.

Welding

Associate in Applied Science - Transfer (AAS-T)
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.

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

- Welding Associate in Applied Science - Transfer (AAS-T) for LCC BAS-OLTM (lowercolumbia.edu/program-maps/trades/AAST-Welding-to-BAS-OLTM)

Degree Requirements

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

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

Course Code	Course Title	Number of Credits
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

Course Code	Course Title	Number of Credits
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.

Program Outcomes

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 Quantitative Literacy)
- Interact effectively with individuals and groups. (GS Teamwork)
- 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.

Notes

Revised May 2023 (effective Summer 2023)

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.

Welding

Associate in Applied Science (AAS)

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 Associate in Applied Science (AAS) (lowercolumbia.edu/program-maps/trades/AAS-Welding)

Degree Requirements

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.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education 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

Course Code	Course Title	Number of Credits
BLPT 160	Blueprint Reading for Welders	5
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

Course Code	Course Title	Number of Credits
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.

Program Outcomes

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 Quantitative Literacy)
- Interact effectively with individuals and groups. (GS Teamwork)
- 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.

Notes

Revised December 2021 (effective Summer 2022)

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 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.

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Accounting (ACCT)

ACCT& 201 Principles of Accounting I
5 credits , ELEC
Quarter(s): F, W

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 Principles of Accounting II
5 credits , ELEC
Quarter(s): W, Sp

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& 203 Principles of Accounting III
5 credits
Quarter(s): Sp

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

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

ACCT 101 Introduction to Accounting Concepts
5 credits , REEL
Quarter(s): F, W, Sp

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

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

ACCT 135 Accounting for Non-Accountants
5 credits

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

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

ACCT 150 Payroll Accounting and Business Tax Reporting
5 credits , REEL
Quarter(s): Sp

Gives students experience in payroll accounting and business tax reporting. Topics include payroll processing, payroll tax return preparation, and preparation of excise tax returns. Context: Course is designed as a stand-alone course. Not intended for transfer.

Prerequisite: BUS 104 or higher and ACCT 101 or instructor permission

ACCT 241 Intro to Quickbooks
5 credits , REEL
Quarter(s): F

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

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

ACCT 244 Individual Income Taxation
5 credits , REEL
Quarter(s): F

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

Prerequisite: MATH 078/079.

ACCT 275 Accounting Tech Capstone
5 credits , REEL
Quarter(s): Sp

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 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 Healthcare Communication Skills
2 credits , REEL
Quarter(s): W, Sp

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 Mental Health First Aid for Adults
1 credit , 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 Mental Health First Aid for Youth
1 credit , 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 Cooperative Work Experience
1 – 5 credits

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 Independent Study
1 – 10 credits

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 American Sign Language I
5 credits , HUM
Quarter(s): F

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 American Sign Language II
5 credits , HUM
Quarter(s): W

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

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

ASL& 123 American Sign Language III:DIV
5 credits , HUM , DIV
Quarter(s): Sp

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

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

ASL 288 Cooperative Work Experience
1 – 15 credits

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.

ASL 299 Independent Study
1 – 10 credits

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

Prerequisites: By instructor permission only.

Anthropology (ANTH)

ANTH& 100 Survey of Anthropology: DIV
5 credits , DIV , SOCS
Quarter(s): F

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

Prerequisites: None

ANTH& 204 Archaeology
5 credits , SOCS
Quarter(s): Sp

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

Prerequisites: None. Concurrent requirements: None

ANTH& 205 Biological Anthropology
5 credits , NSCI
Quarter(s): F, Sp

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 Cultural Anthropology: DIV
5 credits , DIV , SOCS
Quarter(s): W

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 Cooperative Work Experience
1 – 17 credits

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 Independent Study
1 – 10 credits

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 Art Appreciation: DIV
5 credits , DIV , HUM
Quarter(s): S, F, W, Sp

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 Beginning Drawing
3 credits , HUM , PERF
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisite: None

ART 102 Intermediate Drawing
3 credits , HUM , PERF
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisite: ART 101 or instructor permission.

ART 103 Advanced Drawing
3 credits , HUM , PERF
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisite: ART 102 or instructor permission.

ART 106 Two-Dimensional Design
5 credits , HUM
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisites: None

ART 107 Color Theory and Design
5 credits , HUM
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisites: None

ART 108 Three-Dimensional Design
5 credits , 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. Lab hours are required for this course.

Prerequisites: None

ART 111 Beginning Painting
3 credits , ELEC , HUM , PERF
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisite: None

ART 112 Intermediate Painting
3 credits , ELEC , HUM , PERF
Quarter(s): F, W, Sp

Presents more in-depth exploration of painting materials, techniques, and subject matter. Course may include a nude model. Lab hours are required for this course.

Prerequisite: ART 111 or Instructor permission

ART 113 Advanced Painting
3 credits , ELEC , HUM , PERF
Quarter(s): F, W, Sp

Offers advanced painting theory and practice and the development of individual expression in subject matter and composition. Course may include a nude model. Lab hours are required for this course.

Prerequisite: ART 112 or Instructor permission

ART 121 Intro to Digital Imaging and Illustration
5 credits , ELEC , HUM
Quarter(s): W, Sp

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. Lab hours are required for this course.

Prerequisites: None

ART 122 Intermediate Digital Imaging and Illustration
5 credits , ELEC , HUM
Quarter(s): W, Sp

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. Lab hours are required for this course.

Prerequisite: ART 121 or Instructor permission

ART 123 Advanced Digital Imaging and Illustration
5 credits , ELEC , HUM
Quarter(s): W, Sp

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. Lab hours are required for this course.

Prerequisite: ART 122 or Instructor permission

ART 131 Intro to Graphic Design
5 credits , ELEC , HUM
Quarter(s): W, Sp

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. Lab hours are required for this course.

Prerequisites: None

ART 132 Intermediate Graphic Design
5 credits , ELEC , HUM
Quarter(s): W, Sp

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. Lab hours are required for this course.

Prerequisite: ART 131 or Instructor permission

ART 133 Advanced Graphic Design
5 credits , ELEC , HUM
Quarter(s): W, Sp

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. Lab hours are required for this course.

Prerequisite: ART 132 or Instructor permission

ART 141 Beginning Ceramics
3 credits , HUM , PERF
Quarter(s): F, W, Sp

Introduces the study of ceramic materials, and techniques including hand construction and wheel throwing. Lab hours are required for this course.

Prerequisites: None

ART 142 Intermediate Ceramics
3 credits , HUM , PERF
Quarter(s): F, W, Sp

Involves more advanced techniques of hand construction and wheel throwing. Beginning glaze formation and kiln-firing processes are included. Lab hours are required for this course.

Prerequisite: ART 141 or Instructor permission

ART 143 Advanced Ceramics
3 credits , HUM , PERF
Quarter(s): F, W, Sp

Continues wheel and hand forming techniques with emphasis on aesthetics, including decoration and glazing. Lab hours are required for this course.

Prerequisite: ART 142 or Instructor permission

ART 151 Introduction to Digital Photography
5 credits , HUM , PERF
Quarter(s): F, W

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. Lab hours are required for this course. Students must provide their own manually adjustable digital camera.

Prerequisites: None

ART 152 Intermediate Digital Photography
5 credits , HUM , PERF
Quarter(s): W

Examines advanced practices of digital photography; camera and lens operation, exposure, composition, and inkjet printing. Further develops digital editing skills by using software to correct, and enhance photographs. Examines artists, and photographic techniques that influence the field of fine art photography. Lab hours are required for this course. Students must provide their own manually adjustable digital camera.

Prerequisite: ART 151 or instructor permission.

ART 200 Arts Portfolio Website Design
3 credits , ELEC , HUM
Quarter(s): Sp

Explores website development tools, skills, design, and website portfolio standards for visual and performing arts. Introduces web file formats, website production steps, publishing steps, hosting and domain options. Culminates in a portfolio website documenting visual and performing arts works completed thus far along with an artist statement, bio, and resume to share professionally. Basic knowledge of raster and vector image creation or completion of ART 121 Intro to Digital Imaging and Illustration recommended. Lab hours are required for this course.

Prerequisites: None

ART 224 History of Graphic Design: DIV
5 credits , DIV , HUM
Quarter(s): W

Investigates graphic design history via a comprehensive look at people, places and events that shaped print and web design. Examine historical and cultural factors, technological innovations, movements and designers in relation to graphic design.

Prerequisites: None

ART 226 History of Western Art I
5 credits , HUM
Quarter(s): F

History of Western Art is an investigation into the development of art from before history through the Roman Empire, approximately 35,000 BCE to 500 CE. This study includes a conceptual look at the emergence of the creative spark and why art and architecture exists. A comprehensive look at art from the prehistoric natural world, through the emergence of civilization and social organization in ancient cultures, to the glory of Greece and Rome, art continues to interpret culture and to shape contemporary lives.

Prerequisite: None

ART 227 History of Western Art II: DIV
5 credits , DIV , HUM
Quarter(s): W

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 History of Western Art III: DIV
5 credits , DIV , HUM
Quarter(s): Sp

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 Typography
5 credits , ELEC , HUM
Quarter(s): F

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. Lab hours are required for this course.

Prerequisites: None

ART 288 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 Intro to Astronomy
5 credits , NSL
Quarter(s): S, F

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. Lab hours are required for this course.

Prerequisite: None.

ASTR 288 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 Essentials of Mechanics
5 credits , REEL
Quarter(s): S, W

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. Lab hours are required for this course. 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 Automotive Electrical Systems
15 credits , REEL
Quarter(s): F

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. Lab hours are required for this course.

Prerequisites: None

AMTC 105 Vehicle Climate Control
5 credits , REEL
Quarter(s): S, Sp

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. Lab hours are required for this course.

Prerequisite: AMTC 104 or DHET 104 or Instructor Permission

AMTC 114 Automotive Chassis
15 credits , REEL
Quarter(s): W

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. Lab hours are required for this course.

Prerequisites: None

AMTC 124 Automotive Engines
15 credits , REEL
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisites: None

AMTC 206 Fuels and Emissions
15 credits , REEL
Quarter(s): W

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. Lab hours are required for this course.

Prerequisite: AMTC 104 or Instructor Permission

AMTC 207 Computer Engine Controls
15 credits , REEL
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisite: AMTC 104 or Instructor Permission

AMTC 214 Automotive Drivetrains
15 credits , REEL
Quarter(s): F

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. Lab hours are required for this course.

Prerequisite: AMTC 104 or Instructor Permission

AMTC 288 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 Survey of Biology
5 credits , NSL
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisite: None

BIOL& 160 General Biology with Lab: Cell/Molecular
5 credits , NSL
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisites: None Corequisites: None

BIOL& 221 Majors Ecology/Evolution: w/ Lab
5 credits , NSL
Quarter(s): F

Examines evolution, Mendelian genetics, biodiversity, and ecology. First of a three course series. Laboratory included. Lab hours are required for this course.

Prerequisites: None Corequisites: None

BIOL& 222 Majors Cell/Molecular: w/Lab
5 credits , NSL
Quarter(s): W

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. Lab hours are required for this course.

Prerequisite: None Corequisite: None

BIOL& 223 Majors Organismal Phys: w/ Lab
5 credits , NSL
Quarter(s): Sp

Examines organismal (animal and plant) development and physiology. Final course of a three course series. Laboratory included. Lab hours are required for this course.

Prerequisites: None

BIOL& 241 Human A & P 1
5 credits , NSL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisite: BIOL& 160 OR 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 Human A & P 2
5 credits , NSL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

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

BIOL& 260 Microbiology
5 credits , NSL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

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

BIOL 109 Energy and Life: Biological Sciences
5 credits , NSL
Quarter(s): S

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. Lab hours are required for this course.

Prerequisite: None.

BIOL 127 Natural Science of Selected Global Regions
5 credits , NSCI
Quarter(s): W

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 Biodiversity of the Pacific Northwest
5 credits , 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. Lab hours are required for this course.

Prerequisite: ENGL& 101 or instructor permission.

BIOL 150 Genetics and Society
5 credits , NSL
Quarter(s): W

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. Lab hours are required for this course.

Prerequisites: None

BIOL 179 Human Biology & Exercise
5 credits , NSL
Quarter(s): W, Sp

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. Lab hours are required for this course.

Prerequisites: None

BIOL 288 Cooperative Work Experience
1 – 15 credits

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 Special Topics in Microbiology
1 credit , NSCI
Quarter(s): F, W, Sp

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 Special Topics in Human Physiology
1 credit , NSCI
Quarter(s): F, W, Sp

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 Independent Study
1 – 10 credits

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 120 Blueprint Reading for Industrial Technology
2 credits
Quarter(s): S, F, W, Sp

Provides foundational information in reading and understanding plans and drawings that will be useful to industrial technology students. Focusing on line and symbol conventions used in industrial blueprints, reading piping and instrumentation diagrams, and visualization of solid objects from orthographic and isometric projections, the course leads to development of required skills for industrial design and problem solving.

Prerequisites: None

BLPT 150 Machinists Blueprint Reading
5 credits , 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 Blueprint Reading for Welders
5 credits , 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 Independent Study
1 – 10 credits

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 Intro to Business
5 credits , ELEC , SOCS
Quarter(s): S, F, W, Sp

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 Business Law
5 credits , SOCS
Quarter(s): F, W, Sp

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 Foundations of Business Success
3 credits , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisite: None

BUS 104 Business Math Applications
5 credits , REEL
Quarter(s): F, W, Sp

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, CCP 79 with a grade of B or better, or instructor permission. Co-requisite: BUS 100 if not applied as a prerequisite

BUS 118 Business & Corporate Ethics
5 credits , 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 119 Business Communications
5 credits , REEL
Quarter(s): S, Sp

Emphasizes planning, organizing, and writing clear, concise business letters. Includes a review of grammar, punctuation, and word usage as applied to written business communication; experience in writing favorable messages. Students will present information orally and prepare a job resume and letter of application.

Prerequisite: ENGL 099 (was ENGL 100) with a grade of C or better or placement test into ENGL& 101.

BUS 144 Management of Human Relations: DIV
5 credits , DIV , SOCS
Quarter(s): S, F, W, Sp

Introduces and emphasizes the many aspects of human behavior as they affect individuals and groups in the workplace. Teaches human relations skills in the context of understanding human needs, attitudes, perceptions and motivations, workforce diversity teamwork, stress management, and interpersonal communications. Focus is

on management of human relations factors within an organization and understanding the effects of discrimination, prejudice, and intolerance, in the pluralistic workplace.

Prerequisites: None

BUS 150 Customer Service/Management
5 credits
Quarter(s): S, F, W, Sp

Introduces the philosophy of service excellence as it pertains to organizations in today's business environment. Emphasis is on the effects of globalization, cultural diversity, and workforce diversity in organizations. Topics include developing interpersonal skills, interacting effectively with employees and customers, and establishing positive relationships with employees and customers, in the pluralistic workplace. Students will learn to identify the challenges and advantages of a diverse workforce and diverse customer base.

Prerequisite: none

BUS 159 Principles of Retailing
5 credits , REEL
Quarter(s): F, Sp

Surveys retailing principles and concepts and studies store management, merchandise management, pricing, customer services, advertising, and display.

Prerequisite: None

BUS 165 Salesmanship
5 credits , REEL
Quarter(s): W

Surveys multiple aspects of selling, including the importance of selling and salespeople in business and the rewards of a sales career. Topics include: buying behaviors, the ethical and legal issues in sales, the buying process, the approach, the presentation, demonstration of merchandise, handling of objectives, closing the sale, follow-up and effective sales management.

Prerequisite: None

BUS 207 Statistical Projects
3 credits , NSCI

Provides an opportunity for students to apply the statistical processes learned in MATH& 146/MATH 246 by designing their own statistical project. Topics may include nonparametric statistics, sampling techniques, design of experiments and data analysis.

Prerequisite: MATH& 146 or MATH 246 with a grade of C or better or concurrent enrollment in MATH& 146 or MATH 246.

BUS 240 Principles of Supervision
5 credits
Quarter(s): F

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 Human Resource Management
5 credits
Quarter(s): W

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 Principles of Management
5 credits
Quarter(s): Sp

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 Starting/Managing a Small Business
5 credits , REEL
Quarter(s): Sp

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 Principles of Marketing
5 credits
Quarter(s): W

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 Advertising
5 credits
Quarter(s): W

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 Introduction to Project Management
5 credits
Quarter(s): Sp

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. Lab hours are required for this course.

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

BUS 288 Cooperative Work Experience
1 – 15 credits

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 Design Thinking & Entrepreneurship
5 credits

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. Lab hours are required for this course.

Prerequisites: None

BUS 294 Career Success
2 credits , REEL
Quarter(s): S, F, W, Sp

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 Independent Study
1 – 10 credits

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 Keyboarding with Speed and Accuracy
1 – 5 credits , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisites: None

BTEC 104 Introduction to Business Technology
5 credits , REEL
Quarter(s): F, Sp

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 Keyboarding with Speed and Accuracy
1 – 5 credits , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisites: None

BTEC 111 Word Processing I
5 credits , REEL
Quarter(s): S, F, W, Sp

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 Word Processing II
5 credits , REEL
Quarter(s): S, Sp

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 Specialized Applications for Business
3 credits , REEL
Quarter(s): F, W

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. Lab hours are required for this course.

Prerequisites: CS 110 or BTEC 104 with a C or better, or Instructor Permission

BTEC 130 Electronic Calculators I
1 credit , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisite: None.

BTEC 131 Introduction to Spreadsheets
5 credits , REEL
Quarter(s): F, W, Sp

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 Advanced Data Analysis
5 credits , REEL
Quarter(s): F, W, Sp

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 Introduction to MS Word
1 – 5 credits , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisites: None

BTEC 146 Powerpoint Fundamentals
2 credits , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisites: None

BTEC 147 Introduction to Digital Publishing
3 credits , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisites: None

BTEC 148 Introduction to Outlook
2 credits , REEL
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisite: None

BTEC 150 Introduction to Google Applications
3 credits , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisites: None.

BTEC 155 Website Management
3 credits , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisites: None

BTEC 160 Medical Scribe
3 credits , REEL
Quarter(s): S, W

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 Intro to ICD-10 Coding in the Medical Office Part I
5 credits , REEL
Quarter(s): F

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. Lab hours are required for this course.

Prerequisite: BTEC 181 and MEDA 120, both with a grade of C or higher or Instructor Permission

BTEC 162 Intro to ICD-10 Coding in the Medical Office Part II
5 credits , REEL
Quarter(s): W

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. Lab hours are required for this course.

Prerequisite: BTEC 161 with a grade of C or better or instructor permission.

BTEC 163 CPT Coding
5 credits , REEL
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisites: BTEC 162 with grade C or better or instructor permission.

BTEC 164 Medical Office Law & Ethics
2 credits , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisite: None

BTEC 165 Cultural Awareness for Care Professionals: DIV
5 credits , DIV , REEL
Quarter(s): Sp

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 168 Billing & Coding Exam Certification Preparation
2 credits , REEL
Quarter(s): S, F

The Billing & Coding Exam Certification Preparation course reviews essential medical coding skills for professional healthcare services and prepares the student to take any of a variety of exams for industry-level certification. The course covers CPT®, HCPCS and ICD-10-CM coding with hands-on practice coding using medical records that incorporate CPT®, ICD-10-CM, and HCPCS Level II code sets.

Prerequisites: BTEC 163

BTEC 170 Community Health Advocacy
5 credits , REEL
Quarter(s): S, F, Sp

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 Medical Reception Procedures
3 credits , REEL
Quarter(s): F

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 Medical Office Procedures
3 credits , REEL
Quarter(s): W

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 Computers in the Medical Office
3 credits , REEL
Quarter(s): Sp

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 Social Determinants of Health
5 credits , REEL
Quarter(s): F, W

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 Trauma Informed Care
5 credits , REEL
Quarter(s): W, Sp

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 Building Sustainable Community Capacity
5 credits , REEL
Quarter(s): Sp

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 Medical Terminology I
3 credits , REEL
Quarter(s): S, F, W, Sp

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 Medical Terminology II
3 credits , REEL
Quarter(s): S, F, W, Sp

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 Specialized Applications for Business
3 credits , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisites: CS 110 or BTEC 104 with a C or better, or Instructor Permission

BTEC 230 Electronic Calculators II
2 credits , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisite: None

BTEC 288 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 Introduction to MS Word
1 – 5 credits , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisites: None

BTEC 46 Powerpoint Fundamentals
2 credits , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisites: None

BTEC 47 Introduction to Digital Publishing
3 credits , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisites: None

BTEC 50 Introduction to Google Applications
3 credits , REEL
Quarter(s): S, F, W, Sp

Introduces Google Application features that may be used in both personal and business environments. Topics include web-based communication, collaboration, media, and locational tools. Lab hours are required for this course.

Prerequisites: None.

BTEC 55 Website Management
3 credits , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisites: None

Chemistry (CHEM)

CHEM& 100 Preparatory Chemistry
5 credits
Quarter(s): S, F, W, Sp

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 Chemical Concepts w/Lab
5 credits , NSL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisite: Completion of or concurrent enrollment in MATH 79 or CCP 79.

CHEM& 121 Intro to Chemistry
5 credits , NSL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

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 Intro to Organic/Biochem
5 credits , NSL
Quarter(s): Sp

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. Lab hours are required for this course.

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

CHEM& 161 General Chem w/Lab I
5 credits , NSL
Quarter(s): F, W

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. Lab hours are required for this course.

Prerequisites: MATH 98 or CCP 98 with CHEM& 100; OR MATH 98 with high school chemistry; OR MATH& 142

CHEM& 162 General Chem w/Lab II
5 credits , NSL
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisites: C or better in CHEM& 161

CHEM& 163 General Chem w/Lab III
5 credits , NSL
Quarter(s): S, Sp

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. Lab hours are required for this course.

Prerequisites: C or better in CHEM& 162

CHEM& 261 Organic Chem w/Lab I
5 credits , NSL
Quarter(s): F

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. Lab hours are required for this course.

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

CHEM& 262 Organic Chem w/Lab II
5 credits , NSL
Quarter(s): W

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 studies 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. Lab hours are required for this course.

Prerequisite: CHEM& 261 (was CHEM 251).

CHEM& 263 Organic Chem w/Lab III
5 credits , NSL
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisite: CHEM& 262 (was CHEM 252).

CHEM 231 Quantitative Analysis
5 credits , NSL
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisite: Completion of, or concurrent enrollment in CHEM& 163 (was CHEM 153).

CHEM 288 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 and Career Preparation (CCP)

CCP 11 Educational Interview
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Educational Interview II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Educational Interview III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Educational Interview IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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 I-BEST Support
1 – 20 credits
Quarter(s): S, F, W, Sp

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 I-BEST Support II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 I-BEST Support III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 I-BEST Support IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Spanish Culture and Language
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP English 098
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math Level B
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Lab Science
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Civics
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP COLL 101
1 – 20 credits
Quarter(s): S, F, W, Sp

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 38 CCP Health
1 – 20 credits
Quarter(s): S, F, W, Sp

Strengthen basic academic skills while focusing on health and nutrition in order to enhance their personal, social, and workplace environments in a health course. Students will gain an understanding of the effects nutrition 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 40 CCP Electives
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP English
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Science
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP US History
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Washington State History
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Current World History
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Occupational
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Fitness
1 – 20 credits
Quarter(s): S, F, W, Sp

Strengthen basic academic skills while focusing on health, nutrition, and fitness in order to enhance their personal, social, and workplace environments in a CCP Fitness Education course. Students will gain an understanding of the effects 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 CCP Fine Arts
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Contextualized Integrated Eng & Math
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Contextualized Integrated Eng & Math II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Contextualized Integrated Eng & Math III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Contextualized Integrated Eng & Math IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Contextualized English
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Contextualized English II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Contextualized English III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Contextualized English IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 79/Level C
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Pre-College English
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Pre-College English II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Pre-College English III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Pre-College English IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 88/Level D
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 97/D Enhanced
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 98/Level E
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math Level B
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math Level B II
1 – 20 credits
Quarter(s): S, F, W, Sp

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in a low intermediate basic education math course. Lab hours are required for this course.

Prerequisites: CASAS Appraisal Exam and CASAS Appraisal score of 201-220

CCPNG 65 CCP Math Level B III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math Level B IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 78/Level C
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 78/Level C II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 78/Level C III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 78/Level C IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 88/Level D
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 87/D Enhanced
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 88/Level D II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 87/D Enhanced II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 88/Level D III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 87/D Enhanced III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 88/Level D IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 87/D Enhanced IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 98/Level E
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 98/Level E II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 98/Level E III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 98/Level E IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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

College Success (COLL)

COLL 101 College Success 101
2 credits , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisites: None Corequisites: None

COLL 108 Service Learning
3 credits , REEL
Quarter(s): W

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. Lab hours are required for this course.

Prerequisites: Instructor permission.

COLL 110 Test of Essential Academic Skills (TEAS) Preparation
2 credits , REEL
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisites: None

COLL 288 Cooperative Work Experience
1 – 15 credits

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 Employment Portfolio Seminar
1 credit , 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 Math Success
3 credits
Quarter(s): S, F, W, Sp

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

Communication Studies (CMST)

CMST& 210 Interpersonal Communication
5 credits , HUM
Quarter(s): S, F, W, Sp

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 Public Speaking
5 credits , HUM , ELEC
Quarter(s): S, F, W, Sp

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 Small Group Communication
5 credits , HUM
Quarter(s): S, F, W, Sp

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 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& 240 Intercultural Communication: DIV
5 credits , DIV , HUM
Quarter(s): W, Sp

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.

Prerequisites: None

CMST 126 Competitive Public Speaking
2 credits
Quarter(s): F

Provides investigation and practice in background, format, procedures and evaluation criteria of forensics events. Students must participate in a minimum of two intercollegiate tournaments. Lab hours are required for this course.

Prerequisite: None

CMST 127 Competitive Public Speaking
2 credits
Quarter(s): W

Provides investigation and practice in background, format, procedures and evaluation criteria of forensics events. Students must participate in a minimum of two intercollegiate tournaments. Lab hours are required for this course.

Prerequisite: None

CMST 128 Competitive Public Speaking
2 credits
Quarter(s): Sp

Provides investigation and practice in background, format, procedures and evaluation criteria of forensics events. Students must participate in a minimum of two intercollegiate tournaments. Lab hours are required for this course.

Prerequisite: None

CMST 136 Intercollegiate Debate
2 credits
Quarter(s): F

Provides investigation and practice in oral problem solving through the debate format. The student is expected to attend a minimum of two debate tournaments. Lab hours are required for this course.

Prerequisite: None

CMST 137 Intercollegiate Debate
2 credits
Quarter(s): W

Provides investigation and practice in oral problem solving through the debate format. The student is expected to attend a minimum of two debate tournaments. Lab hours are required for this course.

Prerequisite: None

CMST 138 Intercollegiate Debate
2 credits
Quarter(s): Sp

Provides investigation and practice in oral problem solving through the debate format. The student is expected to attend a minimum of two debate tournaments. Lab hours are required for this course.

Prerequisite: None

CMST 226 Competitive Public Speaking
2 credits
Quarter(s): F

Provides investigation and practice in background, format, procedures and evaluation criteria of forensics events. Students must participate in a minimum of

two intercollegiate tournaments. Lab hours are required for this course.

Prerequisite: None

CMST 227 Competitive Public Speaking
2 credits
Quarter(s): W

Provides investigation and practice in background, format, procedures and evaluation criteria of forensics events. Students must participate in a minimum of two intercollegiate tournaments. Lab hours are required for this course.

Prerequisite: None

CMST 228 Competitive Public Speaking
2 credits
Quarter(s): Sp

Provides investigation and practice in background, format, procedures and evaluation criteria of forensics events. Students must participate in a minimum of two intercollegiate tournaments. Lab hours are required for this course.

Prerequisite: None

CMST 236 Intercollegiate Debate
2 credits
Quarter(s): F

Provides investigation and practice in oral problem solving through the debate format. The student is expected to attend a minimum of two debate tournaments. Lab hours are required for this course.

Prerequisite: None

CMST 237 Intercollegiate Debate
2 credits
Quarter(s): W

Provides investigation and practice in oral problem solving through the debate format. The student is expected to attend a minimum of two debate tournaments. Lab hours are required for this course.

Prerequisite: None

CMST 238 Intercollegiate Debate
2 credits
Quarter(s): Sp

Provides investigation and practice in oral problem solving through the debate format. The student is expected to attend a minimum of two debate tournaments. Lab hours are required for this course.

Prerequisite: None

CMST 288 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 Professional/Organizational Communications
5 credits
Quarter(s): F

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 Introduction to Microcomputer Applications
3 credits , ELEC
Quarter(s): S, F, W, Sp

Introduces microcomputers and software applications. Presents Windows, word processing, and electronic spreadsheets basics.

Prerequisite: Ability to use a keyboard

CS 170 Fundamentals of Computer Programming
5 credits , ELEC
Quarter(s): F, W, Sp

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 is a beginning course for CS majors and others, such as engineering transfer students, wishing an introduction to structured computer programming. Lab hours are required for this course.

Prerequisites: MATH 88 (or higher) with a grade of C or better; a knowledge of MS Windows; or instructor permission.

CS 175 Event-Driven Programming UWP C#
5 credits , REEL
Quarter(s): Sp

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 Introduction to Management Information Systems
5 credits
Quarter(s): W

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 Data Structures I
5 credits , REEL , NSCI
Quarter(s): F

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 with a grade of C or better.

CS 275 Object-Oriented Programming
5 credits , REEL
Quarter(s): W

Offers an introduction to the object-oriented programming paradigm using Java. Discusses various object-oriented programming concepts. Develop and implement object-oriented programs. Context: CS 275 is a requirement for the CS Software Development Specialist AAS and AAS-T degrees and for the Undergraduate.

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

CS 280 Advanced Data Structures
5 credits , REEL
Quarter(s): Sp

Offers a detailed study of advanced data structures, including the analysis of algorithms and object-oriented programming using the programming language C++. Context: CS 280 is offered for those students seeking a BS degree in computer science. CS 280 is a required course for students who wish to transfer to WSU-V as juniors

and work toward a BS degree in CS. CS 280 is also required to obtain the AS-T degree in Computer Science.

Prerequisites: CS 270 and MATH& 141 (was MATH 112), both with a grade of C or better, or instructor¿s permission.

CS 285 Programming Tools
5 credits , REEL
Quarter(s): Sp

Discusses programming techniques using C and C++ including debugging tools, scripting languages, UNIX programming tools, and familiarity with Unix/Linux system programming. Lab hours are required for this course.

Prerequisite: CS 270 with a grade of C or better, or instructor permission.

CS 288 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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.

CS 305 Linear Algebra with CS Applications
5 credits
Quarter(s): F

Introduces the fundamentals of linear algebra in the context of computer science applications such as machine learning, computer graphics, quantum computing. Includes definitions of vectors and matrices, their various operations, linear functions and equations, and least squares, including the basics of floating point computation and numerical linear algebra and other topics. Lab hours are required for this course.

Prerequisites: None Co-requisites:
Restricted to BS in Computer Science or instructor permission

CS 310 Programming Languages
5 credits , ELEC
Quarter(s): F

Introduces the design and implementation of programming languages. Explores organization and structure of programming languages, run time behavior and requirements of programs, and programming language specification. Teaches the programming models underlying different programming paradigms such as functional, logic, scripting and object-oriented languages.

Prerequisites: None

CS 318 Computer Architecture
5 credits
Quarter(s): W

Introduction to hardware architectures, layout and operators of machines. Topics include number representation, CPU/GPU concepts, interaction of hardware and software, wired/microprogramming control, memory concepts, IO, assembly and pipeline.

Prerequisites: None

CS 320 Databases and Information Management Systems
5 credits
Quarter(s): W

Introduces the architecture, implementation, and application of databases in computing. Includes relational database design, entity-relationship modeling, SQL programming, and an introduction to data management principles. Covers NoSQL and cloud-based databases to understand diverse data solutions. Apply concepts in real-world

scenarios through projects that reinforce effective data storage and access strategies to prepare for upper-level database coursework.

Prerequisites: None

CS 334 Data Structures and Algorithms
5 credits
Quarter(s): W

Continue exploration of data structures and algorithms by investigating real-world applications of algorithms such as undirected graphs, directed graphs, minimum spanning trees, shortest paths, tries, regular expressions, reductions, and intractability.

Prerequisites: None

CS 340 Operating Systems
5 credits
Quarter(s): Sp

Explores the services operating systems provide to executing processes and their secure access. Includes memory management, concurrent process management, resource management, system call implementation, file systems, and memory protection.

Prerequisites: None

CS 350 Software Engineering
5 credits
Quarter(s): Sp

Learn fundamentals of software engineering including analysis of system requirements, software design principles, patterns, evaluation of appropriate engineering compromises, and application of collaborative software development practices and tools.

Prerequisites: None

CS 402 Statistical Methods for User Research
5 credits
Quarter(s): F

Includes summarizing data and computing margins of error, determining statistical significance, finding appropriate sample sizes for a study, and investigating relationships among variables in the context of quantitative user research.

Prerequisites: None

CS 410 Computer Networks
5 credits
Quarter(s): F

Teaches the fundamentals of computer networks, with emphasis on the Internet. Covers basic concepts of computer networks, layered network architecture, protocols, network programming interfaces, and concept of network performance. Provides students with the opportunity to have hands-on experience by network programming.

Prerequisites: None

CS 420 Cloud Computing Software and Services
5 credits
Quarter(s): F

Covers fundamentals & strategies for moving & developing apps & data storage in the cloud. Analyze cloud-based offerings & compare them for suitability to specific app & infrastructure needs. Learn to deploy apps to the cloud, utilize cloud-based services, develop cloud specific apps, and explore legal and ethical issues specific to the cloud computing environment.

Prerequisites: None

CS 430 Software Design and Implementation
5 credits
Quarter(s): W

Provides a comprehensive overview of current processes, practices & tools used to manage software development projects. Explores concepts and techniques for design and construction of reliable and maintainable software systems in modern high-level languages; program structure and design; program-correctness approaches, including testing; and event-driven programming (e.g., graphical user interface). Includes

substantial project and software-team experience.

Prerequisites: None

CS 435 Secure Software Development
5 credits
Quarter(s): Sp

Explores techniques, methodologies, and processes for development of robust, secure software. Covers security development process, threat modeling, common software vulnerabilities, web site vulnerabilities, defensive coding practices, security testing.

Prerequisites: None

CS 440 Software Design Team Project
5 credits
Quarter(s): W

Apply best practices for planning, organizing, scheduling, & controlling software projects using a combination of case studies and projects. Focuses on collaborative software development, emphasizing project management within team environments. Include unit and integration testing, bug tracking, configuration management, software process models, and object-oriented design using UML. Emphasizes legal & ethical issues that relate to project management.

Prerequisites: None

CS 450 Security Foundations
5 credits
Quarter(s): Sp

Explore elements of security and common threats. Covers various types of cyber attacks and risks to a system as well as fundamentals for mitigating those risks.

Prerequisites: None

CS 455 Data Science Development
5 credits
Quarter(s): Sp

Explores the fundamentals of data science with topics that include data wrangling, visualization, exploratory data analysis, and machine learning. Gain hands-on data science experience with Python or R.

Prerequisites: None

CS 495 Capstone/Internship
5 credits
Quarter(s): Sp

Provides students an opportunity to apply, integrate, and demonstrate their knowledge and skills throughout their undergraduate technology and computing education. Emphasizes legal & ethical issues that relate to project management. Assesses the student's ability to show mastery through practical examinations, oral presentations, and written work. Take this course in the last quarter of enrollment.

Prerequisites: None

Criminal Justice (CJ)

CJ& 101 Introduction to Criminal Justice
5 credits , SOCS
Quarter(s): F, W

Introduces 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. Examines the Constitutional requirements, historical development of the system, processes and theories within the criminal justice system.

Prerequisite: None

CJ& 105 Introduction to Corrections
5 credits , SOCS
Quarter(s): F

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 Juvenile Justice
5 credits , SOCS
Quarter(s): Sp

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

CJ& 110 Criminal Law
5 credits , SOCS
Quarter(s): F

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 Introduction to Policing
5 credits , SOCS
Quarter(s): Sp

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 The American Legal System
5 credits , SOCS
Quarter(s): W

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 or instructor permission.

CJ 180 Report Writing for Law Enforcement
5 credits , ELEC
Quarter(s): W

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 Administration of Justice
5 credits , SOCS
Quarter(s): W

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 or instructor permission

CJ 187 Crisis Intervention for Professionals
3 credits

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 Physical Evidence and Criminalistics
5 credits , ELEC
Quarter(s): Sp

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 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 Introduction to Dance
2 credits , HUM , PERF

Students will study concepts and practice the fundamentals of ballet, modern, and jazz dance. Students will participate in some physical excercise 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. Lab hours are required for this course.

Prerequisite: None

DANCE 105 Introduction to Jazz Dance
2 credits , 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. Lab hours are required for this course.

Prerequisite: None.

DANCE 110 Introduction to Tap Dance
2 credits , 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. Lab hours are required for this course.

Prerequisite: None

DANCE 151 Show Dance I
2 credits , 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. Lab hours are required for this course.

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

DANCE 152 Show Dance II
2 credits , 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. Lab hours are required for this course.

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

DANCE 153 Show Dance III
2 credits , 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. Lab hours are required for this course.

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

DANCE 197 Rehearsal and Performance I
1 – 5 credits

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 Show Dance IV
2 credits , 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. Lab hours are required for this course.

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

DANCE 252 Show Dance V
2 credits , 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. Lab hours are required for this course.

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

DANCE 253 Show Dance VI
2 credits , 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. Lab hours are required for this course.

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

DANCE 288 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 Essentials of Mechanics
5 credits , REEL
Quarter(s): F

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. Lab hours are required for this course.

Prerequisite: None

DHET 104 Electrical Systems
15 credits , REEL
Quarter(s): W

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. Lab hours are required for this course.

Prerequisites: None

DHET 105 Vehicle Climate Control
5 credits , REEL
Quarter(s): S, Sp

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. Lab hours are required for this course.

Prerequisite: AMTC 104 or DHET 104 or Instructor Permission

DHET 114 Heavy Duty Brakes and Chassis
15 credits , REEL
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisites: None

DHET 141 Hydraulics I
4 credits , REEL
Quarter(s): F

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 Hydraulics II
6 credits , REEL
Quarter(s): F

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. Lab hours are required for this course.

Prerequisite: DHET 141 or MFG 140 or concurrent enrollment.

DHET 210 Diesel Engine Rebuild
15 credits , REEL
Quarter(s): W

Presents the operation, maintenance, repair and overhaul of diesel engines used in heavy equipment. Lab hours are required for this course.

Prerequisites: None

DHET 215 Heavy Duty Engine Performance
15 credits , REEL
Quarter(s): F

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. Lab hours are required for this course.

Prerequisite: DHET 104 or instructor permission.

DHET 220 Heavy Duty Power Trains
10 credits , REEL
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisite: None

DHET 228 Commercial Driving
4 credits , REEL
Quarter(s): S, F, W, Sp

Prepares students for the Washington State Class A commercial driver's license exam.

Prerequisites: None

DHET 229 Commercial Truck Driving Operation
6 credits , REEL
Quarter(s): S, F, W, Sp

Provides the required 120 hours of truck driving skill development to prepare students for the Washington State Class A commercial driver's license exam. Lab hours are required for this course.

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 Advanced Shop Practices
5 credits , REEL
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisite: Completion of 60 DHET credits.

DHET 240 Fluid Power/Electrical Theory and Design
5 credits , REEL
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisites: Math 078/079

DHET 288 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 Technical Graphics
1 – 3 credits , 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. Lab hours are required for this course.

Prerequisite: None

DRFT 151 Introduction to Computer-Aided Drafting (CAD)
1 – 3 credits , 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. Lab hours are required for this course.

Prerequisite: CS 110 or instructor permission

DRFT 210 Advanced Technical Graphics
1 – 3 credits , 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. Lab hours are required for this course.

Prerequisite: DRFT 107 or ENGR& 121 (was ENGR 111).

DRFT 252 3-D Computer Aided Drafting
1 – 3 credits , 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. Lab hours are required for this course.

Prerequisite: DRFT 210

DRFT 260 Survey of Civil and Architectural Graphics
3 credits , 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. Lab hours are required for this course.

Prerequisite: DRFT 107 or ENGR& 121 (was ENGR 111) or instructor permission.

DRFT 288 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 Introduction to Theatre
5 credits , HUM
Quarter(s): F, W, Sp

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 Introduction to Acting I
5 credits , 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 Introduction to Acting II
5 credits , 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 Introduction to Acting III
5 credits , 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 Stage Crafts I
5 credits

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 Stage Crafts II
5 credits

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 Stage Crafts III
5 credits

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 Introduction to Theatre Design and Technology
5 credits

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 Audition Techniques
2 credits

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 Rehearsal and Performance I
1 – 5 credits

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 Rehearsal and Performance II
1 – 5 credits

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 Rehearsal and Performance III
1 – 5 credits

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 Acting I
5 credits

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 Acting II
5 credits

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 Acting III
5 credits

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 Masks
5 credits

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 Cooperative Work Experience
1 – 15 credits

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 Rehearsal and Performance IV
1 – 5 credits

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 Rehearsal and Performance V
1 – 5 credits

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 Rehearsal and Performance VI
1 – 5 credits

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 Independent Study
1 – 10 credits

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 Child Care Basics
3 credits

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 Introduction to Early Childhood Education
5 credits
Quarter(s): W, Sp

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 Health/Safety/Nutrition
5 credits , REEL
Quarter(s): F, Sp

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 Practicum-Nurturing Relationships
2 credits
Quarter(s): F, W

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 Infants/Toddlers Care
3 credits , 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 Family Child Care
3 credits , 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 Administration of ECE
3 credits , 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 Curriculum Development
5 credits , REEL
Quarter(s): F

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 Learning Environments
3 credits , REEL
Quarter(s): Sp

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 Lang/ Literacy Develop
3 credits
Quarter(s): W

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 Observation/Assessment
3 credits , REEL
Quarter(s): F, Sp

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 225 STEAM in Early Childhood
5 credits , REEL
Quarter(s): Sp

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 Practicum IV/Principles
3 credits , REEL
Quarter(s): F

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: ECED& 105, ECED& 107, ECED& 120, ECED& 190 and ENGL& 101

ECED 262 Practicum V/Practice
3 credits , REEL
Quarter(s): W

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 Practicum VI/Professionalism
3 credits , REEL
Quarter(s): Sp

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

Prerequisites: ECED 262

ECED 299 Independent Study
1 – 10 credits

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 Practicum I
4 credits , REEL
Quarter(s): W

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 Practicum II
4 credits , REEL
Quarter(s): Sp

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 Reflective Practice I/ Coaching & Mentoring
1 credit , REEL
Quarter(s): F

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 Reflective Practice II/ Leadership
1 credit , REEL
Quarter(s): W

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 Reflective Practice III/ Advocacy
3 credits , REEL
Quarter(s): Sp

Provides content to support and enhance ECED 413 Student Teaching III. Topics include professionalism, ethical practice, understanding of current governmental and community supports for English Language Learners in the classroom. 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: ECED 402 Co-requisite: ECED 413

ECED 411 Student Teaching I
5 credits , REEL
Quarter(s): F

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 Student Teaching II
10 credits , REEL
Quarter(s): W

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 330 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 Student Teaching III
2 credits , REEL
Quarter(s): Sp

Culminates the field experience with a focus on teaching students who are multilingual/ English learners. Emphasizes on employing diverse instructional and assessment methods for ELL instruction. Taken concurrently with EDUC 403 Reflective Practice III. Third of three student teaching experience courses for the non-certificate option. Requires 66 hours in a pre-k through 3rd grade classroom. Taken concurrently with ECED 403.

Prerequisites: ECED 402 & 412 with a C or better Co-requisite: ECED 403

ECED 439 Issues and Trends in Early Childhood Education
5 credits , REEL
Quarter(s): W

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 Introduction to Earth Sciences
5 credits , NSL
Quarter(s): F

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. Lab hours are required for this course.

Prerequisite: None

ERSI 105 Earth Systems
5 credits , NSL
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisite: None

ERSI 109 Energy and Our Planet: Earth Sciences
5 credits , 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. Lab hours are required for this course.

Prerequisite: None.

ERSI 288 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 Micro Economics
5 credits , SOCS
Quarter(s): F, W, Sp

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 119.

ECON& 202 Macro Economics
5 credits , SOCS
Quarter(s): F, W, Sp

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 Introduction to Economics
5 credits , SOCS
Quarter(s): F, W, Sp

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 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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.

ECON 445 Healthcare Economics
5 credits , REEL
Quarter(s): S, Sp

Introduces macro and microeconomics in the context of US health care markets. Examines healthcare supply and demand, as well as cost versus benefit related to market and government approaches to healthcare issues. Considers the impact of the current US healthcare payer model on access, equity, quality, and affordability in comparison to other types of payer models.

Prerequisite: Admission to the RN to BSN program

Education (EDUC)

EDUC& 101 Paraeducator Basics
3 credits , REEL
Quarter(s): F, Sp

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. Satisfies the Professional Educator Standards Board Fundamental Course of Study requirements.

Prerequisites: None

EDUC& 115 Child Development
5 credits , SOCS
Quarter(s): F, W, Sp

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 Guiding Behavior
3 credits , REEL
Quarter(s): F, Sp

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 School Age Care
3 credits , REEL

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

Prerequisites: None Concurrent requirements: None

EDUC& 150 Child/Family/Community
3 credits
Quarter(s): S, F, W, Sp

Discusses the integration of the family and community contexts in which a child develops. Explore cultures and demographics of families in society, community resources, strategies for involving families in the education of their child, and tools for effective communication.

Prerequisites: None Concurrent requirements: None

EDUC& 202 Intro to Education: DIV
5 credits , ELEC , DIV
Quarter(s): W, Sp

Provides a comprehensive examination of education in America, focusing on its historical, philosophical, and social foundations. Explores contemporary issues and trends related to curriculum development, instructional strategies, educational law and ethics, the teaching profession, local educational concerns, and the future landscape of education. Provides opportunities for observation and the application of knowledge in the context of K-12 education.

Prerequisites: None

EDUC& 203 Exceptional Child
3 credits , REEL

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

Prerequisite: None

EDUC& 204 Inclusive Education: Birth through 21 Focus
5 credits , REEL
Quarter(s): S, W

Introduces the recognition and identification of exceptionality in children from birth through high school. Includes policies and regulations concerning state and federal

provisions of special education and related services, as well as adaptations for serving students with special needs in general education classrooms.

Prerequisite: None

EDUC& 205 Introduction to Education w/ Field Experience: DIV
5 credits , DIV , ELEC
Quarter(s): F, W, Sp

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

Prerequisites: None Concurrent requirements: None

EDUC 191 Field Experience I
5 credits , REEL
Quarter(s): W

Provides 99 hours of 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 Basic Competencies.

Prerequisites: None

EDUC 230 Social Skill Development & Trauma Informed Teaching
5 credits , REEL
Quarter(s): F

Examines the principles and theories promoting social and emotional competencies and trauma-informed instruction. Develops strategies to support instruction, promote pro-social behavior and create a safe environment for collaborative work. The focus will be on the Social Emotional Learning Standards (SEL) identified by OSPI. Students will learn how to apply these standards in classroom management, and culturally responsive teaching and instruction.

Prerequisite: None

EDUC 240 Diversity in Education (Pre K-12 Focus)
5 credits
Quarter(s): Sp

Explores diversity and social justice issues influencing educational settings. Examines in depth the historical and current impact of children's, teachers', and families' cultural, social and political context in schools.

Prerequisite: None

EDUC 245 Collaborative Instruction and Classroom Support
5 credits , REEL
Quarter(s): Sp

Designed to empower paraeducators with the knowledge and skills to support and maintain positive and safe learning environments. Engages in exploring various approaches that support these environments. Enhances the ability to foster collaboration and explore research-based instructional methods to enhance student learning through interactive discussions and practical applications.

Prerequisite: EDUC& 101

EDUC 246 Linguistically Diverse Education
3 credits , REEL
Quarter(s): F

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 255 Crisis Management and Support in Inclusive Classrooms
3 credits , REEL
Quarter(s): W

Explores the skills and knowledge to support and respond to challenging classroom situations while maintaining a safe and

inclusive environment. Focuses on de-escalation techniques, and adaptive responses to address immediate safety concerns while supporting the emotional well-being of all learners. Emphasis will be placed on understanding the relationship between physical and emotional needs and applying various behavioral support systems. Explores conflict resolution strategies and multiple approaches to de-escalation, helping students develop the necessary skills to guide student emotions, impulses, and stress in constructive ways.

Prerequisites: None

EDUC 291 Field Experience II
5 credits , REEL
Quarter(s): Sp

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: EDUC 191 and EDUC& 204 (or concurrent)

EDUC 299 Independent Study
1 – 10 credits
Quarter(s): Sp

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 Foundations of Teacher Education
5 credits , REEL
Quarter(s): S, F

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 processional competencies and certification; Social-Emotional Learning, ACE's, Issues of Abuse, and the Field Experience process.

Prerequisites: None

EDUC 315 Equitable Instruction for Multilingual Learners
5 credits , REEL
Quarter(s): S, Sp

Explores instructional frameworks to maximize high quality instruction for multilingual/English learners. It emphasizes the rationale for adapting materials; designing a learning environment, including literature and materials from diverse cultures; and utilizing strategies across content areas. Topics include aligning curriculum with standards, innovative and authentic assessment practices, cultural bias in tests and appropriateness of assessment measures. Candidates will examine the complex linguistic, social, and cultural issues affecting the achievement of multilingual/ English learners in classrooms.

Prerequisite: None

EDUC 319 Anti-Bias Education: DIV
5 credits , DIV , SOCS
Quarter(s): W

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/English Learners. Discusses culturally relevant pedagogy and its importance to the transmitting of culture from generation to generation.

Prerequisites: None

EDUC 320 Language Arts for Teachers
5 credits , REEL
Quarter(s): S, W

Focuses on applying Washington State's English Language Arts Common Core Standards and Early Learning Guidelines P-3 through 8th grade. Emphasizes strategies for teaching reading and how to support each stage of literacy development across genres and purposes. Examines 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, and multilingual/English learners. Additionally, strategies in management of student documents and records are explored.

Prerequisites: None

EDUC 325 Intro to SPED
5 credits , REEL
Quarter(s): S, Sp

Provides an overview of special education and the characteristics and needs of 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: None

EDUC 330 Math Methods
5 credits
Quarter(s): Sp

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 Professionalism, Collaboration & Classroom Leadership
5 credits , REEL
Quarter(s): F

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/ English 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 Concepts of Motor Skills
1 credit , REEL
Quarter(s): Sp

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 Curriculum Development and Design
5 credits , REEL
Quarter(s): F

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, as well as differentiation for students who are culturally, linguistically, and ability diverse. 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 401 Reflective Seminar I
1 credit , REEL
Quarter(s): F

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 Reflective Seminar II
1 credit , REEL
Quarter(s): W

Provides content to support and enhance EDUC 412 Student Teaching II. Topics include professional communication, professional responsibility, leadership and collaboration. Taken concurrently with EDUC 412 Student Teaching II.

Prerequisites: EDUC 401 & 411 with a C or better Co-requisite: EDUC 412

EDUC 403 Clinical Seminar in ELL Instruction
3 credits , REEL
Quarter(s): Sp

Provides content to support and enhance EDUC 413 Field Experience III with a focus on supporting English language learners in the classroom. Taken concurrently with EDUC 413 Student Teaching III.

Prerequisite: EDUC 402 Co-requisite: EDUC 413

EDUC 410 Science Methods
4 credits , REEL
Quarter(s): W

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: None

EDUC 411 Student Teaching I
5 credits , REEL
Quarter(s): F

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: None Co-requisite: EDUC 401

EDUC 412 Student Teaching II
10 credits , REEL
Quarter(s): W

Advances the field experience to autonomous student teaching in an education setting with students and their families who are culturally, linguistically, and ability-diverse under the guidance of a certificated teacher. Emphasizes working as part of a team and assessing instructional effectiveness. The second of three required student teaching experience courses. Taken concurrently with EDUC 402 Reflective Practice II.

Prerequisites: EDUC 411 and EDUC 401 with a C or better Co-requisite: EDUC 402

EDUC 413 Student Teaching III: Clinical Applications in ELL Instruction
2 credits , REEL
Quarter(s): Sp

Culminates the field experience with a focus on teaching students who are multilingual/English learners. Emphasizes on employing diverse instructional and assessment methods for ELL instruction. Taken concurrently with EDUC 403 Clinical Seminar in ELL Instruction.

Prerequisites: Completion of EDUC 402 & 412 with a C or better Co-requisite: EDUC 403

EDUC 414 Guidance Techniques
5 credits , REEL
Quarter(s): W

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 Social Studies for Teachers
4 credits , REEL
Quarter(s): S, Sp

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 Assessment
5 credits , REEL
Quarter(s): S, Sp

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/English learners and their families.

Prerequisites: None

EDUC 430 Advanced Language and Literacy
4 credits , REEL
Quarter(s): Sp

Refines teaching strategies for language acquisition and literacy skill development for children who are culturally, and ability diverse, and multilingual/English learners at each developmental stage (birth-eighth grade) through the four interrelated areas of speaking, listening, writing, and reading. Addresses strategies for supporting families

as they assist their children in learning language and literacy.

Prerequisites: None

EDUC 439 Portfolio and Professional Assessment
5 credits , REEL
Quarter(s): W

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 Engineering Graphics I
3 credits
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisite: None

ENGR& 122 Engineering Graphics II
3 credits
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

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

ENGR& 123 Engineering Graphics III
3 credits
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

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

ENGR& 204 Electrical Circuits
6 credits , ELEC
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisites: PHYS 222, MATH& 152, or higher except MATH 246, and computer literacy.

ENGR& 214 Statics
5 credits
Quarter(s): F

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 Dynamics
5 credits
Quarter(s): W

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 Thermodynamics
5 credits
Quarter(s): Sp

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 Mechanics of Materials
5 credits
Quarter(s): Sp

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 Engineering Problems
5 credits , NSCI
Quarter(s): F

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. Lab hours are required for this course.

Prerequisite: C or better in MATH 098 or placement into MATH& 141

ENGR 205 Design of Logic Circuits
5 credits , ELEC
Quarter(s): F

Covers the design, analysis, and implementation of combinational logic circuits. Introduces sequential logic circuits. Lab hours are required for this course.

Prerequisites: MATH& 141, or higher except MATH& 146 and MATH& 246

ENGR 206 Microprocessor Systems
5 credits , ELEC
Quarter(s): W

Covers microprocessor/microcontroller system architecture, instruction sets, interfacing, assembly and C language programming. Lab hours are required for this course.

Prerequisites: CS 270, ENGR 205

ENGR 210 Environmental Physics of Energy
5 credits , 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 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 English Composition I
5 credits
Quarter(s): S, F, W, Sp

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 English Composition II
5 credits
Quarter(s): S, F, W, Sp

Part two of the composition sequence. Develops first-year college writing and composing skills culminating in a substantial, claim-driven composition supported with research. Emphasizes inquiry, evaluation of diverse sources, synthesis, documentation, argumentation, rhetoric, process, and reflection.

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

ENGL& 111 Intro to Literature
5 credits , HUM
Quarter(s): S, F, W, Sp

Read, analyze, and write about various literary genres including fiction, poetry, and drama. Emphasizes the diversity of literary offerings and strategies for interpreting them.

Prerequisites: None

ENGL& 112 Intro to Fiction
5 credits , HUM
Quarter(s): F

Increases understanding and appreciation of fiction through intensive reading and analysis of short stories.

Prerequisites: Eligible for ENGL 99 or instructor consent

ENGL& 235 Technical Writing
5 credits , HUM , ELEC
Quarter(s): W, Sp

Introduces technical writing skills necessary to communicate effectively in academic and professional settings. Topics covered include business correspondence, job application materials, proposals, reports, instructions, and presentations. Emphasizes inquiry and research.

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

ENGL& 236 Creative Writing I
5 credits , HUM , ELEC
Quarter(s): S, F, W, Sp

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.

Prerequisites: None

ENGL& 237 Creative Writing II
5 credits , HUM , ELEC
Quarter(s): S, F, W, Sp

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& 236

ENGL& 238 Creative Writing III: Nonfiction: DIV
5 credits , HUM , DIV , ELEC
Quarter(s): S, F, W, Sp

Emphasizes the writing and revision of creative nonfiction, focusing on personal experience. Through workshop, students present their own work and respond to other writers' work. Students will study a variety of published work from nonfiction writers, with an intentional examination of diverse voices, to learn key elements of craft and obtain ideas for revision and implementation.

Prerequisites: None

ENGL& 244 American Literature I
5 credits , HUM
Quarter(s): W, Sp

Presents the context for works of American literature and studies major works by its authors. Explores the major forms and movements in American literature.

Prerequisite: ENGL& 101 or instructor permission.

ENGL& 254 World Literature I: DIV
5 credits , HUM , DIV
Quarter(s): S, F, W, Sp

Explores a diverse set of literature from around the world. Emphasizes the social, historical, and cultural contexts that shape world literature.

Prerequisites: ENGL& 101

ENGL 105 Critical Reading and Writing Skills for College English
3 credits
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisites: None Co-requisite: ENGL& 101

ENGL 110 Industrial Communications
5 credits , ELEC
Quarter(s): S, F, Sp

Presents the fundamentals of job-related writing for industrial trades. Covers a variety of workplace documents, including job application materials, workplace correspondence, instructions, and report writing. Emphasizes professional communication skills.

Prerequisites: None

ENGL 204 The Novel
5 credits , HUM
Quarter(s): W

Read, interpret, analyze, discuss, and write about the works of diverse novelists from various time periods. Gain an understanding of how the novel works and how it has developed over centuries.

Prerequisite: None

ENGL 215 Introduction to Film Studies
5 credits , HUM
Quarter(s): F

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 233 Creative Writing
5 credits , HUM , ELEC
Quarter(s): S, F, W, Sp

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: None

ENGL 245 Contemporary Literature: DIV
5 credits , DIV , HUM , ELEC
Quarter(s): F

Explores contemporary works of poetry, fiction, or nonfiction texts through analysis, interpretation, and evaluation. Emphasis placed on texts that represent or reflect multicultural experiences in the U.S. or global diasporas.

Prerequisite: ENGL& 101 with a minimum grade of C

ENGL 256 Special Topics in Literature
5 credits , 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 270 Literature for Children
5 credits , ELEC , HUM
Quarter(s): F, W, Sp

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 Multicultural Literature: DIV
5 credits , DIV , HUM , ELEC
Quarter(s): Sp

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 a variety of cultures in the United States and global diasporas.

Prerequisite: ENGL& 101 with a minimum grade of C

ENGL 98 College-Ready English I
5 credits
Quarter(s): S, F, W, Sp

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 College-Ready English II
5 credits
Quarter(s): S, F, W, Sp

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 Educational Interview
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Educational Interview II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Educational Interview III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Educational Interview IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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 ELL Integrated Beginning
1 – 20 credits
Quarter(s): S, F, W, Sp

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 52 ELL Integrated Intermediate
1 – 20 credits
Quarter(s): S, F, W, Sp

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 202-227.

ELL 53 ELL Integrated II Beginning
1 – 20 credits
Quarter(s): S, F, W, Sp

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 54 ELL Integrated II Intermediate
1 – 20 credits
Quarter(s): S, F, W, Sp

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 202-227

ELL 55 ELL Integrated III Beginning
1 – 20 credits
Quarter(s): S, F, W, Sp

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 56 ELL Integrated III Intermediate
1 – 20 credits
Quarter(s): S, F, W, Sp

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 202-227

ELL 57 ELL Integrated IV Beginning
1 – 20 credits
Quarter(s): S, F, W, Sp

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 58 ELL Integrated IV Intermediate
1 – 20 credits
Quarter(s): S, F, W, Sp

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 202-227

ELL 61 ELL Reading
1 – 20 credits
Quarter(s): S, F, W, Sp

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 62 ELL Integrated Advanced
1 – 20 credits
Quarter(s): S, F, W, Sp

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in an advanced basic education reading and writing course.

Prerequisites: Casas score CASAS appraisal exam and CASAS appraisal score of 222-238

ELL 63 ELL Reading II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 64 ELL Integrated II Advanced
1 – 20 credits
Quarter(s): S, F, W, Sp

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in an advanced basic education reading and writing course.

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 222-238

ELL 65 ELL Reading III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 66 ELL Integrated III Advanced
1 – 20 credits
Quarter(s): S, F, W, Sp

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in an advanced basic education reading and writing course.

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 222-238

ELL 67 ELL Reading IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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 68 ELL Integrated IV Advanced
1 – 20 credits
Quarter(s): S, F, W, Sp

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in an advanced basic education reading and writing course.

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 222-238

ELL 71 ELL Writing
1 – 20 credits
Quarter(s): S, F, W, Sp

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 ELL Writing II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 ELL Writing III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 ELL Writing IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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 ELL Speaking and Listening
1 – 20 credits
Quarter(s): S, F, W, Sp

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 82 ELL Grammar
1 – 20 credits
Quarter(s): S, F, W, Sp

This is an intensive English course designed to introduce and teach grammar structure strengthening basic academic skills in order to enhance personal, social, and workplace environments.

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 202 and above.

ELL 83 ELL Speaking and Listening II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 84 ELL Grammar II
1 – 20 credits
Quarter(s): S, F, W, Sp

This is an intensive English course designed to introduce and teach grammar structure strengthening basic academic skills in order to enhance personal, social, and workplace environments.

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 202 and above.

ELL 85 ELL Speaking and Listening III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 86 ELL Grammar III
1 – 20 credits
Quarter(s): S, F, W, Sp

This is an intensive English course designed to introduce and teach grammar structure strengthening basic academic skills in order to enhance personal, social, and workplace environments.

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 202 and above.

ELL 87 ELL Speaking and Listening IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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 88 ELL Grammar IV
1 – 20 credits
Quarter(s): S, F, W, Sp

This is an intensive English course designed to introduce and teach grammar structure strengthening basic academic skills in order to enhance personal, social, and workplace environments.

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 202 and above.

ELLYR 51 ELL Integrated Beginning
1 – 20 credits
Quarter(s): S, F, W, Sp

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 52 ELL Integrated Intermediate
1 – 20 credits
Quarter(s): S, F, W, Sp

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 202-227

ELLYR 53 ELL Integrated II Beginning
1 – 20 credits
Quarter(s): S, F, W, Sp

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 54 ELL Integrated II Intermediate
1 – 20 credits
Quarter(s): S, F, W, Sp

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 202-227

ELLYR 55 ELL Integrated III Beginning
1 – 20 credits
Quarter(s): S, F, W, Sp

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 56 ELL Integrated III Intermediate
1 – 20 credits
Quarter(s): S, F, W, Sp

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 202-227

ELLYR 57 ELL Integrated IV Beginning
1 – 20 credits
Quarter(s): S, F, W, Sp

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 58 ELL Integrated IV Intermediate
1 – 20 credits
Quarter(s): S, F, W, Sp

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

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 202-227

ELLYR 61 ELL Reading
1 – 20 credits
Quarter(s): S, F, W, Sp

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 62 ELL Integrated Advanced
1 – 20 credits
Quarter(s): S, F, W, Sp

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in an advanced basic education reading and writing course.

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 222-238

ELLYR 63 ELL Reading II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 64 ELL Integrated II Advanced
1 – 20 credits
Quarter(s): S, F, W, Sp

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in an advanced basic education reading and writing course.

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 222-238

ELLYR 65 ELL Reading III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 66 ELL Integrated III Advanced
1 – 20 credits
Quarter(s): S, F, W, Sp

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in an advanced basic education reading and writing course.

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 222-238

ELLYR 67 ELL Reading IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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 68 ELL Integrated IV Advanced
1 – 20 credits
Quarter(s): S, F, W, Sp

Strengthens basic academic skills in order to enhance personal, social, and workplace environments in an advanced basic education reading and writing course.

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 222-238

ELLYR 71 ELL Writing
1 – 20 credits
Quarter(s): S, F, W, Sp

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 ELL Writing II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 ELL Writing III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 ELL Writing IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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 ELL Speaking and Listening
1 – 20 credits
Quarter(s): S, F, W, Sp

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 82 ELL Grammar
1 – 20 credits
Quarter(s): S, F, W, Sp

This is an intensive English course designed to introduce and teach grammar structure strengthening basic academic skills in order to enhance personal, social, and workplace environments.

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 202 and above.

ELLYR 83 ELL Speaking and Listening II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 84 ELL Grammar II
1 – 20 credits
Quarter(s): S, F, W, Sp

This is an intensive English course designed to introduce and teach grammar structure strengthening basic academic skills in order to enhance personal, social, and workplace environments.

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 202 and above.

ELLYR 85 ELL Speaking and Listening III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 86 ELL Grammar III
1 – 20 credits
Quarter(s): S, F, W, Sp

This is an intensive English course designed to introduce and teach grammar structure strengthening basic academic skills in order to enhance personal, social, and workplace environments.

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 202 and above.

ELLYR 87 ELL Speaking and Listening IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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 88 ELL Grammar IV
1 – 20 credits
Quarter(s): S, F, W, Sp

This is an intensive English course designed to introduce and teach grammar structure strengthening basic academic skills in order to enhance personal, social, and workplace environments.

Prerequisites: CASAS appraisal exam and CASAS appraisal score of 202 and above.

Environmental Science (ENVS)

ENVS& 100 Survey of Env Science
5 credits , NSCI
Quarter(s): F, W, Sp

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 Environmental Issues & Applications
5 credits , NSCI , NSL
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisites: ENGL& 101 or consent of instructor.

ENVS 288 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 Environmental Issues
5 credits , NSCI
Quarter(s): W

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 Physical Geography
5 credits , NSL
Quarter(s): F, W

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. Lab hours are required for this course.

Prerequisite: None

GEOG 297 Special Topics in Geography
5 credits , NSCI , NSL
Quarter(s): F

Examines the geography of a specific region of Earth's surface. Lab hours are required for this course.

Prerequisite: GEOG 105

Geology (GEOL)

GEOL& 101 Intro Physical Geology
5 credits , NSL
Quarter(s): F, W

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. Lab hours are required for this course.

Prerequisite: None

GEOL& 208 Geology of Pacific Northwest
5 credits , NSL
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisite: None

GEOL 105 Geology: Earth Revealed
5 credits , 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. Lab hours are required for this course.

Prerequisite: None

GEOL 118 Historical Geology
5 credits , NSL
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisite: None

GEOL 124 Geology Fieldtrip: Columbia River Gorge
1 credit , 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. Lab hours are required for this course.

Prerequisites: None

GEOL 288 Cooperative Work Experience
1 – 17 credits

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 Special Topics in Geology
5 credits , NSCI , NSL
Quarter(s): F

Examines geologic concepts with respect to a specific region of Earth's surface. Lab hours are required for this course.

Prerequisite: GEOL& 101

GEOL 299 Independent Study
1 – 10 credits

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 Occupational Safety and Health
3 credits , REEL
Quarter(s): S, F, W, Sp

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 First Aid, CPR and Bloodborne Pathogens
1 credit , REEL
Quarter(s): F, W

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 Health and Wellness
2 credits , ELEC
Quarter(s): F, W, Sp

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 Personal Health
2 credits , 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 Food and Fitness
2 credits , 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 Health and Exercise Behavior Change
3 credits , ELEC
Quarter(s): W

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 265 Mind and Body Health
2 credits , ELEC
Quarter(s): Sp

Exploration of the mind and body connection. Focuses on mindfulness,

healing, and listening to the body¿s physical, mental, social and spiritual needs. Identify stressors, and learn healthy coping mechanisms. Discover a healthy life balance, practice self-acceptance and recognize meaningful human connections. Introduces concepts of Yoga, meditation, grounding, and breathing techniques.

Prerequisites: None

HLTH 288 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 World Civilizations I: DIV
5 credits , HUM , ELEC , DIV
Quarter(s): F

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 World Civilizations II: DIV
5 credits , SOCS , DIV , ELEC
Quarter(s): W

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 payed to the increasing interdependence of Asia, Africa, Europe, the Americas, and Oceania.

Prerequisite: None

HIST& 128 World Civilizations III: DIV
5 credits , ELEC , SOCS , DIV
Quarter(s): S, Sp

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 payed to the sustained interdependence of Asia, Africa, Europe, the Americas, and Oceania.

Prerequisite: None.

HIST& 136 US History I
5 credits , SOCS
Quarter(s): S, F, W, Sp

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 US History II
5 credits , SOCS
Quarter(s): S, F, W, Sp

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 Women in U.S. History: DIV
5 credits , DIV , SOCS
Quarter(s): Sp

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 History of East Asia: DIV
5 credits , DIV , ELEC , SOCS
Quarter(s): Sp

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 Sports in American History
5 credits , ELEC , SOCS

Examines the American sporting experience from the colonial period through the 21st century. Focuses on the rise of organized sports institutions and how race, class, gender, ethnicity, and religion have shaped the relationship between sport and society. Students will learn about the histories of various sports, the athlete and spectator experience, consumerism and celebrity culture.

Prerequisite: None

HIST 254 History of Washington and the Pacific Northwest
5 credits , ELEC , SOCS
Quarter(s): S, Sp

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: None

HIST 288 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 New Student Orientation
1 credit , REEL
Quarter(s): S, F, W, Sp

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 Career Exploration and Planning
1 – 3 credits , REEL
Quarter(s): F, W, Sp

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 Activities/Events Programming
1 – 2 credits , 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. Lab hours are required for this course.

Prerequisite: None

HDEV 107 Activities/Events Programming
1 – 2 credits , 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. Lab hours are required for this course.

Prerequisite: None

HDEV 108 Activities/Events Programming
1 – 2 credits , 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. Lab hours are required for this course.

Prerequisite: None

HDEV 110 Job Finding Skills
1 – 3 credits , 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 Stress Management
2 credits , 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 Leadership and Student Government
1 – 3 credits , 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. Lab hours are required for this course.

Prerequisite: Instructor permission

HDEV 117 Leadership and Student Government
1 – 3 credits , 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. Lab hours are required for this course.

Prerequisite: Instructor permission

HDEV 118 Leadership and Student Government
1 – 3 credits , 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. Lab hours are required for this course.

Prerequisite: Instructor permission

HDEV 120 Individual and Group Relations
1 credit , REEL
Quarter(s): S, F, W, Sp

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 Assertiveness Training
2 credits , 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 Student Support Services
1 – 3 credits , 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. Lab hours are required for this course.

Prerequisite: None

HDEV 128 Transfer Planning
1 credit , 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 Anger Management
2 credits , 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 Psychology of Humor
1 – 3 credits , 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 Lead:Leadership Exploration and Development
2 credits , 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 Activities/Events Programming
1 – 2 credits , 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. Lab hours are required for this course.

Prerequisite: None

HDEV 207 Activities/Events Programming
1 – 2 credits , 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. Lab hours are required for this course.

Prerequisite: None

HDEV 208 Activities/Events Programming
1 – 2 credits , 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. Lab hours are required for this course.

Prerequisite: None

HDEV 216 Leadership and Student Government
1 – 3 credits , 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. Lab hours are required for this course.

Prerequisite: Instructor permission

HDEV 217 Leadership and Student Government
1 – 3 credits , 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. Lab hours are required for this course.

Prerequisite: Instructor permission

HDEV 218 Leadership and Student Government
1 – 3 credits , 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. Lab hours are required for this course.

Prerequisite: Instructor permission

HDEV 221 Peer Mentoring I
2 credits , 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 Peer Mentoring II
2 credits , 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 Peer Mentoring III
1 credit , 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 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 Journeys-A Workshop for Women
2 credits

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 Transitions
2 – 7 credits

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. Lab hours are required for this course.

Prerequisite: None

HDEV 90 Success By Your Design
2 credits

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 Humanities I
5 credits , HUM
Quarter(s): F

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 Humanities II
5 credits , HUM
Quarter(s): S, W

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 Humanities III
5 credits , HUM
Quarter(s): Sp

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 Ethics and Cultural Values: DIV
5 credits , HUM , DIV
Quarter(s): S, W

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 Community Conversations
1 credit , ELEC
Quarter(s): F, Sp

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 How to See a Play
1 credit , HUM , ELEC
Quarter(s): F, W, Sp

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 109 Critical Interpretation of Media
3 credits , ELEC , HUM
Quarter(s): S, F, W, Sp

Provides an introduction to the way our perception of media and information is

shaped by internal and external factors including social identity, worldview, and inherent human biases. Attention will also be given to how media organizations use these factors and others to influence public opinion. By the end of the course, students will have developed practical skills to critically evaluate media and information.

Prerequisites: None

HUM 120 Regional Life and Culture
5 credits , HUM
Quarter(s): S, F, Sp

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 Arts Magazine Publication I
1 – 5 credits , ELEC , HUM
Quarter(s): F

Instructs and guides students through the first stage in an annual publication process, including creating and editing The Salal Review (Lower Columbia College¿s literary, visual, and performance arts magazine). Students in this stage of the publication process work primarily with literary art submissions: marketing for, collecting, critiquing, selecting, editing, and creating design directives for how various forms of literary art should be displayed in print and digital formats. Students may take a total of six classes (HUM 124, HUM 125, HUM 126, all repeatable for credit) to complete two years of publication studies. Credit hours determine student workload and delegation of publication tasks. Lab hours are required for this course.

Prerequisites: None

HUM 125 Arts Magazine Publication II
1 – 5 credits , ELEC , HUM
Quarter(s): W

Instructs and guides students through the second stage in an annual publication process, including creating and editing The Salal Review (Lower Columbia College¿s literary, visual, and performing arts magazine). Students in this stage of the publication process work primarily with visual art submissions: marketing for, collecting, critiquing, selecting, editing, and creating design directives for how various forms of visual art should be displayed in print and digital formats. Students will also finalize the order of the magazine manuscript. Students may take a total of six classes (HUM 124, HUM 125, HUM 126, all repeatable for credit) to complete two years of publication studies. Credit hours determine student workload and delegation of publication tasks. Lab hours are required for this course.

Prerequisites: None

HUM 126 Arts Magazine Publication III
1 – 5 credits , ELEC , HUM
Quarter(s): Sp

Instructs and guides students through the third and final stage in an annual publication process, including creating and editing The Salal Review (Lower Columbia College¿s literary, visual, and performing arts magazine). Students in this stage of the publication process work primarily with performance art submissions (not suitable for print): marketing for, collecting, critiquing, and creating design directives for how various forms of performance art should be displayed in digital formats. 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 take a total of six classes (HUM 124, HUM 125, HUM 126, all repeatable for credit) to complete two years of publication studies. Credit hours determine student workload and delegation of publication tasks. Lab hours are required for this course.

Prerequisites: None

HUM 131 Introduction to World Religions: DIV
5 credits , DIV , HUM
Quarter(s): F

Explores the major religions of the world including Judaism, Christianity, Islam, Hinduism, Buddhism, Jainism, Shintoism, Sikhism, Confucianism, and Daoism.

Prerequisites: None

HUM 150 Ethics and Policy in Healthcare I
1 credit , HUM
Quarter(s): F, W, Sp

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 Cultural Journeys: DIV
5 credits , DIV , HUM
Quarter(s): F, W

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 Myth and Rites: DIV
5 credits , DIV , HUM
Quarter(s): S, F, W, Sp

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: None

HUM 230 Thinking About Thinking
5 credits , HUM
Quarter(s): S, W

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: None

HUM 250 Ethics and Policy in Healthcare II
2 credits , HUM
Quarter(s): F, W, Sp

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 Ethics and Policy in Healthcare III
2 credits , HUM
Quarter(s): F, W, Sp

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 Ethics and Policy in Healthcare
5 credits , HUM
Quarter(s): F

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 LPN-entry options of the associate degree nursing program.

Prerequisite: Admission to the Nursing program.

HUM 288 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 Ethics
5 credits , HUM
Quarter(s): Sp

Provides a foundation in ethics as applied to businesses and organizations with a focus on ethics related to management issues. Examines the role of ethics and social responsibility in the management of public and private sector organizations and businesses. Explores theoretical concepts in business ethics and apply them to real-world situations based on challenges managers face. Discusses actual publicized local ethical lapses and the consequences on the affected organization. Emphasizes contemporary trends in corporate responsibilities with respect to ethical, legal, economic, and regulatory conditions in the global marketplace.

Prerequisite: None

Information Technology (IT)

IT 100 IT Fundamentals
5 credits , ELEC
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisite: BUS 100

IT 102 Introduction to Web Design
5 credits , REEL
Quarter(s): W

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. Lab hours are required for this course.

Prerequisite: IT 100 or co-enrollment, or instructor permission

IT 111 Intro to Windows
4 credits , REEL
Quarter(s): S, F

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). Lab hours are required for this course.

Prerequisite: None

IT 140 Configuring Windows Operating System
4 credits , REEL
Quarter(s): F

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. Lab hours are required for this course.

Prerequisite: IT 100 IT Fundamentals (5 credits)

IT 141 PC Technician I
4 credits , REEL
Quarter(s): F, W

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. Lab hours are required for this course.

Prerequisite: IT 100 (was CS 100) with a C or better, or instructor permission.

IT 142 PC Technician II
4 credits , REEL
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisites: IT 141 (was CS 141) with a grade of C or better, or instructor permission.

IT 211 Introduction to Networking
5 credits , REEL
Quarter(s): F

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. Lab hours are required for this course.

Prerequisite: IT 140 with a grade of C or better or instructor permission.

IT 212 Installing and Configuring Windows Server
5 credits , REEL
Quarter(s): W

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. Lab hours are required for this course.

Prerequisite: IT 211 (was CS 211) with a grade of C or better or instructor permission.

IT 220 Intro to Cloud Computing
3 credits , REEL
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisites: IT 140 (was IT 143) or IT 211 (was CS 211) with a grade of C or better, or instructor permission.

IT 230 Database Development
5 credits , REEL
Quarter(s): F

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 Introduction to Big Data
5 credits , REEL

Provides an introduction to concepts used in data mining and data-analytics, including exploration and application of data modeling tools. Lab hours are required for this course.

Prerequisites: IT 230 (was CS 230) with a grade of C or better, or instructor permission.

IT 236 Network and Systems Automation
5 credits
Quarter(s): Sp

Provides hands-on experience in automating information technology systems, network tasks, and processes to improve efficiency and reliability. Covers essential concepts and tools for automating network configurations, deploying and managing servers and performing routine maintenance tasks. Gain proficiency in scripting, utilizing industry-standard automation tools, and configuring remote management and monitoring systems with a focus on tools such as Python, PowerShell, and Ansible. Lab hours are required for this course.

Prerequisites: IT 212, IT 249, IT 211

IT 249 Linux Operating Systems
5 credits , REEL
Quarter(s): W

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. Lab hours are required for this course.

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 Info Tech Security
5 credits , REEL
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisites: IT 211 (was CS 211) with a grade of C or better, or instructor permission.

IT 288 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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.

Instrumentation (IMIN)

IMIN 215 Programmable Logic Controllers
5 credits , REEL
Quarter(s): S, F, W, Sp

Introduces students to the fundamentals of Programmable Logic Controllers (PLCs) and their applications in industrial automation. Explores the architecture, operation, and programming of PLCs, focusing on ladder logic, function block diagrams, and sequential function charts. Develop skills to design, implement, and troubleshoot PLC-based control systems through hands-on labs and real world scenarios. Learn to configure PLCs, write and test PLC programs, and integrate them into industrial systems to control processes and machinery.

Prerequisites: None

IMIN 230 Process Technology Equipment
4 credits , REEL
Quarter(s): S, F, W, Sp

Provides an overview of the equipment and tools used in the industrial maintenance, process technology and instrumentation industries including piping, tubing, hoses and fittings, valves, pumps. Covers compressors, turbines, motors and engines, power transmission and lubrication, heat exchangers, cooling towers, furnaces and boilers, filters and dryers, vessels, and their associated instrumentation. Introduces many process related equipment concepts such as purpose, components, operation, and the Process and Maintenance Technicians roles for operating and troubleshooting equipment.

Prerequisites: None

IMIN 240 Instrumentation Fundamentals
5 credits , REEL
Quarter(s): S, F, W, Sp

Introduces students to the essential principles and components of industrial instrumentation systems. Build on the basics of measurement and expand into calibration and control focusing on the operation of sensors, transducers, and signal processing devices. Covers key topics such as pressure, temperature, flow, and level measurement, as well as the communication protocols used in instrumentation. Gain experience in selecting, installing, and maintaining instrumentation for various industrial processes through practical application. Understand and apply the fundamentals of instrumentation in process control systems.

Prerequisites: None

IMIN 260 Advanced Instrumentation
5 credits , REEL
Quarter(s): S, F, W, Sp

Provides an in-depth study of advanced instrumentation techniques and systems used in industrial automation and process control. Explore topics such as signal conditioning, data acquisition, advanced sensors, and transducers. Covers the principles of process measurement, calibration, and instrumentation communication protocols. Develop the skills to design, implement, and troubleshoot complex instrumentation systems in various

industrial environments through hands-on labs and projects. Integrate advanced instrumentation with control systems to optimize process efficiency and accuracy. Lab hours are required for this course.

Prerequisites: IMIN 240 Instrumentation Fundamentals

Intensive English as a Second Language (IESL)

IESL 299 Independent Study
1 – 10 credits

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 Speaking/Listening I
5 credits
Quarter(s): S, F, W, Sp

Provides practice in listening to everyday conversational vocabulary in a variety of meaningful contexts as a falst-beginner level. Requires students to respond to simple questions, follow short dialogs, and identify topics in short passages with familiar or pre-taught vocabulary. The speaking portion of the course is designed for students with limited knowledge about English from previous study. Provides practice in speaking English at a beginner level. Improves pronunciation through practice in production of consonant sounds, intonation and rhythm. Focuses on conversational language using familiar topics in a variety of everyday contexts. Introduces culture of the American classroom. This course is part of an intensive English program and provides speaking and listening practice for beginning level. This course may be repeated as needed until reaching competency. Successful completion at an 80% or better allows a student to transition into a level II speaking and listening intensive English course.

Prerequisites: None Concurrent requirements: IESL Reading, IESL Writing, IESL Grammar

IESL 62 Speaking/Listening II
5 credits
Quarter(s): S, F, W, Sp

Provides listening practice in listening a high intermediate level. Strengthens listening skills by building vocabulary and by listening to longer passages and dialogs. Requires students to listen regularly to and understand main ideas in authentic sources of English (TV, radio, video, interviews, etc.) and to comprehend paragraph-length listening passages with familiar or pre-taught vocabulary. Provides speaking practice at the high-intermediate level. Provides more practicing speaking through use of natural situation language and functional language. Provides conversation practice on everyday topics. Stresses ability to discriminate and produce vowel and consonant sounds, to use correct word order, and to respond in complete sentences. This course is part of an intensive English program and provides speaking and listening practice for beginning to intermediate level. This course many 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 and 80% or better or testing placement at level II. Concurrent requirements: IESL - Reading, IESL - Writing, IESL - Grammar

IESL 63 Speaking/Listening III
5 credits
Quarter(s): S, F, W, Sp

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 Speaking/Listening IV
5 credits
Quarter(s): S, F, W, Sp

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 Reading I
5 credits
Quarter(s): S, F, W, Sp

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 Reading II
5 credits
Quarter(s): S, F, W, Sp

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 Reading III
5 credits
Quarter(s): S, F, W, Sp

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 Reading IV
5 credits
Quarter(s): S, F, W, Sp

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 Writing I
5 credits
Quarter(s): S, F, W, Sp

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 Writing II
5 credits
Quarter(s): S, F, W, Sp

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 Writing III
5 credits
Quarter(s): S, F, W, Sp

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 Writing IV
5 credits
Quarter(s): S, F, W, Sp

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 Special Projects - Academic General Support
1 – 3 credits
Quarter(s): W

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 Special Projects - Academic English
1 – 3 credits
Quarter(s): W

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 Grammar I
3 credits
Quarter(s): S, F, W, Sp

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 Grammar II
3 credits
Quarter(s): S, F, W, Sp

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 Grammar III
3 credits
Quarter(s): S, F, W, Sp

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 Grammar IV
3 credits
Quarter(s): S, F, W, Sp

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 Introduction to Library and Information Research
2 credits , 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 Information Literacy II
2 credits , 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. Lab hours are required for this course.

Prerequisite: None

LIBR 204 Information Literacy III
1 – 2 credits , 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. Lab hours are required for this course.

Prerequisite: None

LIBR 288 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 Information Literacy I
2 credits , 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. Lab hours are required for this course.

Prerequisite: None

Machine Trades (MASP)

MASP 107 Machining for Related Occupations
2 – 6 credits , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisite: None

MASP 111 Machine Shop I
2 – 10 credits , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisite: None

MASP 112 Machine Shop II
2 – 10 credits , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisite: 10 credits of MASP 107 and/or MASP 111

MASP 113 Machine Shop III
2 – 10 credits , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisite: 10 credits of MASP 112

MASP 204 CNC Machining Center Fundamentals
3 credits , REEL
Quarter(s): S, F, W, Sp

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 CNC Turning Center Fundamentals
3 credits , REEL
Quarter(s): S, F, W, Sp

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 CNC Milling
2 – 10 credits , REEL
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisite: MASP 204

MASP 222 CNC Turning
2 – 10 credits , REEL
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisite: MASP 205

MASP 223 Advanced CNC Processes
2 – 10 credits , REEL
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisite: MASP 221 or MASP 222

MASP 288 Cooperative Work Experience
1 – 15 credits
Quarter(s): F, W, Sp

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 Independent Study
1 – 10 credits
Quarter(s): F, W, Sp

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 Machine Shop Support I
1 credit , 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 Machine Shop Support II
1 credit , REEL

Introduces machine shop practices. This theory course addresses topics such as basic metallurgy and the appropriate uses and safe operation of milling machines and grinding machines.

Prerequisite: None Concurrent requirement: MASP 111

Manufacturing (MFG)

MFG 100 Foundational Skills for The Trades
2 credits , REEL
Quarter(s): S, F, W, Sp

Provides an introduction to the core skills required for success in manufacturing and trades-related careers. Learn trade topics such as orientation to careers in the trades, work-ethic and teamwork, basic measurements and calculations, scaffolding, rigging, hand and power tool use, fall protection, and fundamental electrical safety. Emphasizes shop safety, problem-solving, teamwork, communication, and critical thinking. Build a strong foundation for further specialized training and entry-level positions in the industry through hands-on practice and real world applications. Lab hours are required for this course.

Prerequisites: None

MFG 105 Industrial Safety
3 credits , REEL
Quarter(s): S, F, W, Sp

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 Project Management
4 credits , 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 Manufacturing Process
5 credits , REEL
Quarter(s): F

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 Quality Assurance
4 credits , REEL
Quarter(s): Sp

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 Materials Science
5 credits , REEL
Quarter(s): F, W

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 Applied Hydraulics
4 credits , REEL
Quarter(s): F

Covers basic problems of hydraulics, fluids, power, hydraulics actuators, controls, pressures and circuits, and principles of industrial applications.

Prerequisite: None

MFG 205 Work Teams in Industry
3 credits , 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 Computer Integrated Manufacturing
4 credits , REEL
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisite: None

MFG 288 Cooperative Work Experience
2 credits

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 Independent Study
1 – 10 credits

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 Math in Society
5 credits , ELEC , NSCI
Quarter(s): S, F, W, Sp

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: Placement OR MATH 106 minimum grade "C" OR CCP 97 minimum grade "B" OR MATH 7 minimum grade "C" OR concurrent enrollment in MATH 7. Co-requisites: None

MATH& 131 Math for Elementary Educators 1
5 credits , ELEC , NSCI
Quarter(s): F, W

Strengthens students' understanding of problem solving, operations on whole numbers, decimals, integers, and fractions, and ratios, proportions, and percentages. First of a two-part series. Lab hours are required for this course.

Prerequisites: Placement OR CCP 97 minimum grade "B" OR MATH 31 minimum grade "C" OR concurrent enrollment in MATH 31. Co-requisites: None

MATH& 132 Math for Elementary Educators 2
5 credits , NSCI
Quarter(s): W, Sp

Strengthens students' understanding of the real number system, probability and statistics, geometry, measurement, functions and graphs. Second of two-part series. Lab hours are required for this course.

Prerequisites: MATH& 131 (was MATH 121) with a grade of C or better.

MATH& 141 Precalculus I
5 credits , NSCI
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisites: Placement OR MATH 088 minimum grade "C" OR CCP 098 minimum grade "B" OR MATH 41 minimum grade "C" OR concurrent enrollment in MATH 41. Co-requisites: None.

MATH& 142 Precalculus II
5 credits , NSCI
Quarter(s): S, F, W, Sp

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 Introduction to Statistics
5 credits , ELEC , NSCI
Quarter(s): S, F, W, Sp

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: Placement OR MATH 105 minimum grade "C" OR CCP 97 minimum grade "B" OR MATH 46 minimum grade "C" OR concurrent enrollment in MATH 46. Co-requisite: None.

MATH& 148 Business Calculus
5 credits , NSCI
Quarter(s): W, Sp

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 Calculus I
5 credits , ELEC , NSCI
Quarter(s): F, W

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 Calculus II
5 credits , NSCI
Quarter(s): W, Sp

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 Calculus III
5 credits , NSCI
Quarter(s): S, Sp

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 Calculus IV
5 credits , NSCI
Quarter(s): F

Continuation of Calculus III. Topics include partial derivitatives, multiple integrals, and vector calculus.

Prerequisites: MATH& 153 with a grade of C or better.

MATH 105 Math for Health Sciences
5 credits , REEL
Quarter(s): W, Sp

Reviews basic arithmetic skills including whole numbers, decimal numbers, fractions and percentages. Covers problem solving in the context of health sciences, which involves using formulas, solving and graphing linear equations, conversion between the metric and household systems of measurement as well as calculations needed to determine dosages. Discusses various tools and measurements used in statistics, including charts, graphs, tables, and correlation.

Prerequisites: MATH 79, 'C' or better.

MATH 106 Industrial Mathematics
5 credits , REEL
Quarter(s): F, W, Sp

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 and numerical literacy 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: C or better in MATH 079, B or better in CCP 79, or placement

MATH 125 Applied College Algebra
5 credits , NSCI
Quarter(s): F, W

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: Placement OR CCP 98 minimum grade "B" OR MATH 41 minimum grade "C" OR concurrent enrollment in MATH 41. Co-requisites: None.

MATH 215 Discrete Mathematics
5 credits , ELEC , NSCI
Quarter(s): W

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 Linear Algebra
5 credits , NSCI
Quarter(s): Sp

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 Differential Equations
5 credits , NSCI
Quarter(s): W

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 Probability and Statistics
5 credits , ELEC , NSCI
Quarter(s): F, Sp

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 Cooperative Work Experience
1 – 15 credits
Quarter(s): F, W, Sp

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 Independent Study
1 – 10 credits

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 31 Support Course for Math for Elementary Educators 1
3 credits
Quarter(s): F, W

Develops vocabulary and numeracy skills to support student success in MATH& 131. Topics include problem solving, communication, algorithmic calculations with different number sets, conversions between numerical representations, ratios, proportions, percentages, and student success skills. Students taking this course must also be enrolled in MATH& 131 concurrently.

Prerequisites: Appropriate placement test score OR MATH 79, minimum grade 'C' OR CCP 79, minimum grade 'B' Co-requisites: MATH& 131

MATH 41 Support Course for Precalculus I and Applied College Algebra
3 credits
Quarter(s): S, F, W, Sp

Taken concurrently with MATH& 141 or MATH 125. Content includes holistic work with linear and quadratic functions, and as well as exponential, logarithmic, radical, and rational equations and their applications in business and STEM contexts. Additional attention to metacognition and student success skills.

Prerequisites: Appropriate placement test score OR MATH 88 with minimum grade 'C' OR CCP 088 with minimum grade 'B'. Co-requisites: MATH 125 or MATH& 141

MATH 46 Support Course for Introduction to Statistics
3 credits
Quarter(s): S, F, W, Sp

Develops vocabulary and numeracy skills to support student success in MATH& 146. Topics include order of operations, formulas, applications, and number sense. College success strategies are also integrated throughout the course. Students must be enrolled in a section of Introduction to Statistics (MATH& 146) during the same quarter in order to enroll for this course.

Prerequisites: C or better in MATH 79, B or better in CCP 79, or placement Co-requisites: MATH& 146

MATH 7 Support Course for Math in Society
3 credits
Quarter(s): S, F, W, Sp

Develops vocabulary and numeracy skills to support student success in MATH& 107. Topics include mathematical communication and critical reading of quantitative information, problem solving, linear equations, and student success skills.

Prerequisite: Appropriate placement test score OR MATH 079 minimum grade 'C' OR CCP 079 with minimum grade of 'B'. Co-requisites: MATH& 107

MATH 78 Pre-College Math I
3 credits
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisites: B or higher in CCP 32 Math Level B or placement test

MATH 79 Pre-College Math
3 credits
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisites: Appropriate placement

MATH 87 Essentials of Pre-College Math II
3 credits
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisites: C or better in MATH 79 or B or better in CCP 79, Placement Exam, or Instructor Permission

MATH 88 Introduction to Algebra for STEM & Business
3 credits
Quarter(s): S, F, W, Sp

Covers foundational math concepts necessary to be successful in precalculus. Includes proportional reasoning, linear functions, and their use in business and STEM applications. Additional attention to metacognition, problem solving, and student success skills. Lab hours are required.

Prerequisite: Placement OR MATH 79 minimum grade "C" OR CCP 79 minimum grade "B"

MATH 97 Essentials of Pre-College Math III
3 credits
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisites: C or better in MATH 087 or MATH 089

MATH 98 Pre-College Math III
3 credits
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

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 Medical Vocabulary I
3 credits , REEL
Quarter(s): F, W

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 Medical Vocabulary II
3 credits , REEL
Quarter(s): W, Sp

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 Survey of Human Anatomy & Physiology
5 credits , ELEC
Quarter(s): F

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 Law and Ethics for the Medical Office
3 credits , REEL
Quarter(s): W

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 Medical Laboratory Techniques
6 credits , REEL
Quarter(s): Sp

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. Lab hours are required for this course.

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 Examining Room Procedures I
4 credits , REEL
Quarter(s): F

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. Lab hours are required for this course.

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 Examining Room Procedures II
4 credits , REEL
Quarter(s): W

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. Lab hours are required for this course.

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 Medications in Medical Assisting & Diseases
5 credits , REEL
Quarter(s): Sp

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. Lab hours are required for this course.

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 Medical Assisting Preceptorship
6 credits , REEL
Quarter(s): S

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 Medical Assisting Seminar
1 credit , REEL
Quarter(s): S

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 Certification Review for Medical Assisting
2 credits , REEL
Quarter(s): S

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 Cooperative Work Experience
1 – 15 credits
Quarter(s): S, F, W, Sp

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 Special Topics in Medical Assisting
1 credit , REEL
Quarter(s): F, W

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 Independent Study
1 – 10 credits

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 Music Appreciation
5 credits , ELEC , HUM
Quarter(s): S, F, W, Sp

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 Music Theory I
5 credits , ELEC , HUM
Quarter(s): F

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 Music Theory II
5 credits , HUM , ELEC
Quarter(s): W

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 Music Theory III
5 credits , ELEC , HUM
Quarter(s): Sp

Furthers 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 Music Theory IV
5 credits , HUM
Quarter(s): F

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 Music Theory V
5 credits , HUM
Quarter(s): W

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 Music Theory VI
5 credits , HUM
Quarter(s): Sp

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 Fundamentals of Music
5 credits , HUM
Quarter(s): S, F, W, Sp

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 Keyboard Skills I
1 credit , ELEC , HUM
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisite: None

MUSC 107 Keyboard Skills II
1 credit , ELEC , HUM
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisite: MUSC 106

MUSC 108 Keyboard Skills III
1 credit , ELEC , HUM
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisite: MUSC 107

MUSC 111 Ear Training I
1 credit , ELEC , PERF
Quarter(s): F

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 Ear Training II
1 credit , ELEC , PERF
Quarter(s): W

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 Ear Training III
1 credit , ELEC , PERF
Quarter(s): Sp

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 Group Piano Instruction
2 credits , ELEC , HUM , PERF
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisite: None

MUSC 121 Concert Choir I
2 credits , ELEC , HUM , PERF
Quarter(s): F

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. Lab hours are required for this course.

Prerequisites: Instructor permission.

MUSC 122 Concert Choir II
2 credits , ELEC , HUM , PERF
Quarter(s): W

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. Lab hours are required for this course.

Prerequisites: None

MUSC 123 Concert Choir III
2 credits , ELEC , HUM , PERF
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisites: None

MUSC 130 Jazz Ensemble
2 credits , HUM , PERF
Quarter(s): F, W, Sp

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 Beginning Guitar
2 credits , ELEC , HUM , PERF
Quarter(s): S, F, W, Sp

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 Intermediate Guitar
2 credits , ELEC , HUM , PERF
Quarter(s): F, W, Sp

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 Advanced Guitar
2 credits , ELEC , HUM , PERF
Quarter(s): F, W, Sp

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 Orchestra
2 credits , HUM , PERF
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisite: Instructor Permission

MUSC 150 Symphonic Band
2 credits , ELEC , HUM , PERF
Quarter(s): F, W, Sp

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 Bella Voce Choir I
2 credits , ELEC , HUM , PERF
Quarter(s): F

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. Lab hours are required for this course.

Prerequisites: None

MUSC 152 Bella Voce Choir II
2 credits , ELEC , HUM , PERF
Quarter(s): W

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. Lab hours are required for this course.

Prerequisites: None

MUSC 153 Bella Voce Choir III
2 credits , ELEC , HUM , PERF
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisites: None

MUSC 176 Individual Instruction I
1 credit , ELEC , HUM , PERF
Quarter(s): F, W, Sp

Provides instrumental / vocal / composition instruction to acquire and refine musical techniques using skill level appropriate repertoire and materials.

Prerequisite: None

MUSC 177 Individual Instruction II
1 credit , ELEC , HUM , PERF
Quarter(s): F, W, Sp

Provides instrumental / vocal / composition instruction to acquire and refine musical techniques using skill level appropriate repertoire and materials.

Prerequisite: MUSC 176

MUSC 178 Individual Instruction III
1 credit , ELEC , HUM , PERF
Quarter(s): F, W, Sp

Provides instrumental / vocal / composition instruction to acquire and refine musical techniques using developmentally appropriate repertoire and materials.

Prerequisite: MUSC 177

MUSC 221 Concert Choir IV
2 credits , ELEC , HUM , PERF
Quarter(s): F

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. Lab hours are required for this course.

Prerequisites: None

MUSC 222 Concert Choir V
2 credits , ELEC , HUM , PERF
Quarter(s): W

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. Lab hours are required for this course.

Prerequisites: None

MUSC 223 Concert Choir VI
2 credits , ELEC , HUM , PERF
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisites: None

MUSC 251 Bella Voce Choir IV
2 credits , ELEC , HUM , PERF
Quarter(s): F

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. Lab hours are required for this course.

Prerequisites: None

MUSC 252 Bella Voce Choir V
2 credits , ELEC , HUM , PERF
Quarter(s): W

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. Lab hours are required for this course.

Prerequisites: None

MUSC 253 Bella Voce Choir VI
2 credits , ELEC , HUM , PERF
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisites: None

MUSC 276 Individual Instruction IV
1 credit , HUM , ELEC , PERF
Quarter(s): F, W, Sp

Provides instrumental / vocal / composition instruction to acquire and refine musical techniques using developmentally appropriate repertoire and materials.

Prerequisite: MUSC 178

MUSC 277 Individual Instruction V
1 credit , ELEC , HUM , PERF
Quarter(s): F, W, Sp

Provides instrumental / vocal / composition instruction to acquire and refine musical techniques using developmentally appropriate repertoire and materials.

Prerequisite: MUSC 276

MUSC 278 Individual Instruction VI
1 credit , ELEC , HUM , PERF
Quarter(s): F, W, Sp

Provides instrumental / vocal / composition instruction to acquire and refine musical techniques using developmentally appropriate repertoire and materials.

Prerequisite: MUSC 277

MUSC 299 Independent Study
1 – 10 credits

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 Pharmacology for Nursing I
2 credits , REEL
Quarter(s): F, W, Sp

Introduces basic principles of pharmacology and therapeutic modalities. Provides an overview of drug classifications and prototypes.

Prerequisite: Admission to the nursing program Concurrent requirement: NURS 151 or nursing program director approval

NURS 151 Nursing Concepts in Health and Illness I
3 credits , REEL
Quarter(s): F, W, Sp

Presents concepts that form the foundation of nursing practice and the roles of provider of care, manager of care, and member of the profession. Topics include: the nursing

process, concepts of health and wellness, oxygenation, fluid and electrolyte balance, elimination, the integumentary system, comfort measures, and palliative care.

Prerequisites: NURS 090 or equivalent and certification as a nursing assistant in WA or OR and admission to the nursing program. NURS 090 must be completed with a 'C' or above. Co-requisites: NURS 161

NURS 152 Nursing Concepts in Health and Illness II
5 credits , REEL
Quarter(s): F, W, Sp

Builds upon foundational nursing knowledge and concepts. Focuses on health promotion and comprehensive care of clients with chronic illness. Promotes decision making and critical thinking in the nursing roles of provider of care, manager of care and member of the profession. Topics include cancer, the endocrine, respiratory, cardiovascular, musculoskeletal and gastrointestinal systems.

Prerequisites: NURS 150 and NURS 151 with a 'C' or higher Co-requisite: NURS 162

NURS 153 Nursing Concepts in Health and Illness III
5 credits , REEL
Quarter(s): F, W, Sp

Presents additional nursing knowledge and concepts focusing on comprehensive care of adults with chronic illness. Expands upon decision making and critical thinking. Further develops the nursing roles of provider of care, manager of care and member of the profession. Topics include perioperative care, and the genitourinary, reproductive, hematologic, neurologic, and sensory systems.

Prerequisites: NURS 152 with a 'C' or higher Co-requisite: NURS 163

NURS 160 Skills In Nursing
2 credits , REEL
Quarter(s): F, W, Sp

Introduces skills and the associated concepts for the provision of safe, effective nursing care. Topics include vital signs, physical assessment, sterile technique, wound care, blood glucose monitoring, medication administration, dosage calculation, injections, nasogastric tubes, urinary catheters, and care of tracheostomies. Lab hours are required for this course.

Prerequisites: Admission to the nursing program Co-requisite: NURS 161

NURS 161 Nursing Practicum I
3 credits , REEL
Quarter(s): F, W, Sp

Provides opportunities to perform beginning nursing care in the roles of provider of care, manager of care and member of the profession. Focuses on care of the client in skilled care and community settings. Lab hours are required for this course.

Prerequisites: Admission to the nursing program. Co-requisites: NURS 151

NURS 162 Nursing Practicum II
5 credits , REEL
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisites: NURS 161 and NURS 160 with a grade of 'Pass'. Co-requisite: NURS 152

NURS 163 Nursing Practicum III
5 credits , REEL
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisites: NURS 162 with a grade of 'Pass' Co-requisite: NURS 153

NURS 209 Nursing Success
2 credits , REEL
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisite: Formal acceptance into the campus-based 2nd year of LCC nursing program. Instructor permission required for enrollment.

NURS 242 Nursing Throughout the Lifespan
5 credits , REEL
Quarter(s): F

Builds on previous nursing knowledge to present concepts essential to the provision and management of nursing care of patients throughout the lifespan. Topics include; nursing process and plan of care, 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: Enrollment in LPN2RN Program

NURS 244 Comprehensive Medical Surgical Nursing I
5 credits , REEL
Quarter(s): W

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 Comprehensive Medical Surgical Nursing II
5 credits , REEL
Quarter(s): Sp

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 Skills Lab
5 credits , REEL
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisite: NURS 244 with a C or higher Co-requisite: NURS 245

NURS 247 Clinical Practicum
5 – 8 credits , REEL
Quarter(s): S

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. Lab hours are required for this course.

Prerequisite: NURS 246

NURS 248 Advanced Clinical Practicum
5 credits , REEL
Quarter(s): S

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 Pharmacology for Nursing II
1 credit , REEL
Quarter(s): F, W, Sp

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 Nursing Concepts In Health and Illness IV
4 credits , REEL
Quarter(s): F, W, Sp

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 Nursing Concepts in Health and Illness V
5 credits , REEL
Quarter(s): F, W, Sp

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 Nursing Concepts in Health and Illness VI
5 credits , REEL
Quarter(s): F, W, Sp

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 Nursing Practicum IV
5 credits , REEL
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisites: Complete NURS 163 with a grade of 'Pass', OR concurrent enrollment in

NURS 209 Concurrent requirements: NURS 251

NURS 262 Nursing Practicum V
5 credits , REEL
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisites: NURS 261 with a grade of 'Pass' Concurrent requirements: NURS 252

NURS 263 Nursing Practicum VI
5 credits , REEL
Quarter(s): F, W, Sp

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 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 400 Quality, Safety, and Equity in Nursing Practice
5 credits , REEL
Quarter(s): S, F

Explores the conceptual foundations of healthcare quality and safety. Examines cultural humility and culturally sensitive nursing care. Explores the ways that implicit bias, structural racism, and social and ecological determinants impact health and healthcare in vulnerable and disadvantaged populations. Analyzes personal cultural experiences and how those experiences shape identity and healthcare core values.

Prerequisite: Admission to the RN to BSN Program

NURS 405 Research and Evidence-Based Nursing Practice
5 credits , REEL
Quarter(s): F

Explores the nature of inquiry, basic research concepts, language and processes. Focuses on research contributions for developing knowledge, improving quality of care, reducing risk, and enhancing professional development and accountability. Accessing, critiquing, and utilizing quantitative, qualitative, and mixed methods to make informed clinical decisions are introduced. Explores ethical and legal rights of human subjects and equitable research practices.

Prerequisite: Admission to the RN to BSN Program

NURS 410 Community and Public Health Nursing
5 credits , REEL
Quarter(s): F

Investigates the principles, theories, and concepts of community and public health utilized to provide culturally sensitive and population-centered nursing care. Includes levels of disease prevention, principles of epidemiology, community assessment, environmental health, and disaster preparedness. Emphasizes equitable health promotion, risk reduction, and disease management across the lifespan within the context of individuals, families, aggregate populations, and community systems on a local to global scale.

Prerequisite: Admission to the RN to BSN program

NURS 415 Leadership for Organizational Change
5 credits , REEL
Quarter(s): W

Investigates the changing role of the professional nurse as leader in complex and diverse healthcare settings. Applies leadership theories and methods, skills, and decision-making to implement high quality nursing care, healthcare team coordination, and oversight and accountability for care in a variety of settings. Emphasizes critical thinking, team building, interprofessional communication, priority setting, collaborative decision making, and advocacy in facilitating system change.

Prerequisite: Admission to the RN to BSN program

NURS 420 Health Information Technology in Nursing
5 credits , REEL
Quarter(s): Sp

Explores the structure and relationship between healthcare delivery systems, organizational compliance, and promoting interoperability in various nursing practice settings. Emphasizes use of information management and client care technologies used to deliver safe and effective care to diverse client populations in a variety of settings. Investigates effects of emerging technologies on equity and accessibility of healthcare services.

Prerequisites: Admission to the RN to BSN program and NURS 405 with a C or higher

NURS 430 Nursing Community Care Field Experience
5 credits , REEL
Quarter(s): Sp

Facilitates transition from student role to scholar-BSN. Applies concepts of scholarly inquiry, health promotion, leadership, and change management in a community practicum experience culminating in a population-centered quality improvement or systems change project. Note: 3:1 contact hours for field experience.

Prerequisites: Admission to the RN to BSN program, NURS 410 with a C or higher and NURS 415 with a C or higher

NURS 435 Historical and Theoretical Influences on Current Nursing Practice
5 credits , REEL
Quarter(s): S, Sp

Introduces milestones and major health theories that have historically influenced nursing practice. Examines foundational concepts and principles of selected theories to develop a personal philosophy of nursing. Explores theoretical and philosophical influences on current nursing practice.

Prerequisite: Admission to the RN to BSN program

NURS 440 Current Trends in Healthcare Policy
5 credits , REEL
Quarter(s): W

Investigates current trends in health care policy at the local, state and federal level as well as their impacts on the delivery of care and client outcomes. Examines legislative and regulatory processes pertaining to the

nursing profession. Explores nursing role in legislative and policy-forming processes.

Prerequisite: Admission to the RN to BSN program

NURS 90 Nursing Assistant
7 credits , REEL
Quarter(s): S, F, W, Sp

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 as listed in WAC 246-841-400. As part of this course, students will complete the Washington State skills competency exam and register for their state written/oral exam to obtain their Nursing Assistant Certified license. Lab and clinical hours are required for this course.

Prerequisites: None.

Nutrition (NUTR)

NUTR& 101 Nutrition
5 credits , NSCI
Quarter(s): S, F, W, Sp

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 201 Lifespan Nutrition
5 credits , NSCI
Quarter(s): W

Explores the evolving nutritional needs of humans across different life stages, from conception through aging. Examines how dietary requirements change based on physiological development, health concerns, and lifestyle factors. Analyzes the impact of nutrition on common health conditions, and considers practical applications to promote optimal health throughout the lifespan.

Prerequisites: NUTR& 101

NUTR 298 Special Topics in Nutrition
1 – 2 credits , NSCI
Quarter(s): F, Sp

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 Independent Study
1 – 5 credits

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 Intro to Oceanography
5 credits , NSL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisite: None.

Organizational Leadership and

Technical Management (OLTM)

OLTM 300 Foundations of Leadership
5 credits , SOCS
Quarter(s): F

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

OLTM 320 Workplace and Environmental Safety
5 credits , ELEC
Quarter(s): W

Develops student understanding of the fundamentals of workplace/environmental safety management. Course is designed to increase appreciation for workplace safety, expand knowledge of potential hazards, and identify the necessary steps to conduct an environmental audit. Elements of safety management, OSHA standards, program design and execution, increasing leadership/organizational participation, stakeholder involvement, and performance assessment for continuous improvement will be covered.

Prerequisites: None

OLTM 325 Transformative Leadership and Decision Making
5 credits , ELEC
Quarter(s): W

Introduces the theory and practice of transformative leadership and decision making. Students will compare transactional and transformational leadership by examining the dynamics of transformation and how leadership can facilitate it within individuals and organizations. Students will develop skills in ethical communication and decision-making, investigate a variety of frameworks for ethical decision making and select and describe rationale for a specific approach based on a given situation. Students will explore and critique their own ideas of leadership and how they relate to real-world scenarios. During this process, students will discover new ideas about leadership, how to consider multiple moral perspectives within a global context, refine their individual leadership philosophy and develop a leadership growth plan.

Prerequisites: None

OLTM 329 Foundations of Business Practices and Emerging Technologies
5 credits , ELEC
Quarter(s): W

Examines the impact of digital technologies on business processes and individual leadership roles in various organizations and professional-technical fields. Students will explore how leadership skills and practices support the implementation of new digital technologies in various business contexts, and how leadership, digital technologies and innovation intersect in the evolving business environment. Students will research and analyze how converging technologies, including mobile devices, cloud services, social media, search engine optimization and the emerging Internet of Things, shape business functions such as customer and vendor relationships, marketing, process monitoring and optimization, and virtual collaboration.

Prerequisites: None

OLTM 330 Entrepreneurship
5 credits , ELEC
Quarter(s): Sp

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 Developing and Leading High-Performance Teams
5 credits , ELEC
Quarter(s): Sp

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 Ethics and Leadership: Leading and Managing in a Diverse Society: DIV
5 credits , DIV , HUM
Quarter(s): F

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 Global Systems & Change Management
5 credits , SOCS
Quarter(s): F

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 Financial Management
5 credits , REEL
Quarter(s): Sp

Introduces analysis of managerial planning and control systems. Examines the development and administration of operating reports, budgets, and financial support systems. Introduces accounting vocabulary and financial statement analysis, emphasizing financial information for effective organizational leadership.

Prerequisite: A college-level math course for which intermediate algebra is a prerequisite from the quantitative distribution list.

OLTM 450 Negotiations, Mediation and Conflict Resolutions
5 credits , ELEC
Quarter(s): W

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 Advanced Project Management
5 credits , ELEC
Quarter(s): W

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 Coaching and Mentoring
5 credits , ELEC
Quarter(s): Sp

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 Current Issues in Human Resource Management
5 credits , ELEC
Quarter(s): Sp

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 Capstone
5 credits , ELEC
Quarter(s): Sp

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 Intro to Philosophy
5 credits , HUM
Quarter(s): F, W, Sp

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 Philosophy of Religion
5 credits , HUM
Quarter(s): W

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 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 Pilates and Stretch
1 credit , PAC , REEL
Quarter(s): F, W, Sp

Strength and flexibility exercises practiced with Pilates routine to create a balanced and effective program. Emphasis on core strength, posture, balance and toning. Lab hours are required for this course.

Prerequisite: None

PHED 105 Pilates & Yoga - Beginning
1 credit , PAC , REEL
Quarter(s): F, W

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. Lab hours are required for this course.

Prerequisite: None.

PHED 106 Yoga for Beginners
1 credit , PAC , REEL
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisites: None

PHED 109 Baseball Coaching Theory
2 credits , ELEC
Quarter(s): Sp

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 Circuit Training
2 credits , 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. Lab hours are required for this course.

Prerequisite: None

PHED 114 Applied Baseball I
2 credits , PAC
Quarter(s): W

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. Lab hours are required for this course.

Prerequisite: Instructor permission.

PHED 117 Applied Soccer I
2 credits , PAC
Quarter(s): F

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. Lab hours are required for this course.

Prerequisite: Instructor permission

PHED 118 Applied Softball I
2 credits , PAC
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisite: Instructor permission

PHED 119 Men's Basketball Coaching Theory
2 credits , ELEC
Quarter(s): W

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 Cross-Training
2 credits , ELEC , PAC
Quarter(s): F

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. Lab hours are required for this course.

Prerequisite: None

PHED 121 Beginning Foil Fencing
1 credit

Presents the skills, strategies, rules, and physical conditioning for the competitive or leisure pursuit of fencing. Lab hours are required for this course.

Prerequisite: None

PHED 122 Intermediate Foil Fencing
1 credit

Advancement of the skills, strategies, rules, and physical conditioning beyond the basics for competitive or leisure pursuit. Lab hours are required for this course.

Prerequisite: PHED 121 or instructor permission.

PHED 125 Boot Camp
1 credit , 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. Lab hours are required for this course.

Prerequisite: None

PHED 126 Aerobic Exercise
1 – 2 credits , 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. Lab hours are required for this course.

Prerequisite: None

PHED 127 Zumba I
1 – 2 credits , 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. Lab hours are required for this course.

Prerequisite: None

PHED 128 Weight Training
2 credits , PAC , REEL
Quarter(s): S, F, W, Sp

Covers introductory weight training techniques. Develops muscular strength and endurance, flexibility, and cardiorespiratory fitness. Explores general health and physical education topics such as muscle recovery, hydration, sleep and nutrition. Lab hours are required for this course.

Prerequisite: None

PHED 129 Aqua Zumba I
1 – 2 credits , ELEC

Blends the Zumba formula and philosophy with traditional aqua fitness disciplines into a safe, challenging, water-based workout that's body-toning and cardio-conditioning. Lap swim is also available during this time. Lab hours are required for this course.

Prerequisite: None

PHED 130 Swimming
1 credit

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. Lab hours are required for this course.

Prerequisite: None

PHED 135 Fitness Walking
2 credits , PAC
Quarter(s): S, F, W, Sp

Utilizes walking in developing the health-related components of physical fitness. Emphasis will be placed on cardiorespiratory endurance through low-impact, moderate intensity exercise. Lab hours are required for this course.

Prerequisite: None

PHED 136 Men's Applied Basketball I
2 credits , PAC
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisite: Instructor permission

PHED 137 Women's Applied Basketball I
2 credits , PAC
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisite: Instructor permission

PHED 138 Applied Volleyball I
2 credits , PAC
Quarter(s): F

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. Lab hours are required for this course.

Prerequisite: Instructor permission

PHED 139 Train for a Race
1 – 2 credits , PAC
Quarter(s): F, Sp

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. Lab hours are required for this course.

Prerequisites: None

PHED 152 Personalized Fitness
1 – 2 credits , PAC , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisite: None

PHED 155 Rock Climbing - Beginning
1 credit , PAC , REEL
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisites: None

PHED 159 Women's Basketball Coaching Theory
2 credits , ELEC
Quarter(s): W

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 Women's Soccer Coaching Theory
2 credits , ELEC
Quarter(s): F

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 Prevention and Care of Athletic Injuries
3 credits
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisite: None

PHED 179 Softball Coaching Theory
2 credits , ELEC
Quarter(s): W

Develops a basic understanding of coaching the sport of softball. Includes concepts of coaching leadership, sport psychology, sport specific coaching theory, and developing proper sport-specific technique. Covers the use of technology and modern equipment to coach players in their individual development.Required for softball student-athletes during their first year of classes.

Prerequisite: Instructor permission

PHED 189 Volleyball Coaching Theory
2 credits , ELEC
Quarter(s): Sp

Develops a basic understanding of coaching the sport of volleyball. Includes concepts of coaching leadership, sport psychology, sport specific coaching theory, and developing proper volleyball technique. Covers the use of technology and modern equipment to coach players in their individual development. Required for first year volleyball student athletes.

Prerequisite: Instructor permission

PHED 204 Pilates and Stretch
1 credit , PAC
Quarter(s): F, W, Sp

Strength and flexibility exercises practiced with Pilates routines to create a balanced and effective program. Emphasis on core strength, posture, balance and toning. Lab hours are required for this course.

Prerequisites: None.

PHED 205 Pilates & Yoga - Intermediate
1 credit , PAC
Quarter(s): W

Pilates & Yoga routines will be practiced together to create a balanced and effective strength and flexibility workout. Emphasis will be on core strength, back strength, posture, balance, and toning major muscle groups. Lab hours are required for this course.

Prerequisite: PHED 105 or instructor permission.

PHED 210 Circuit Training
2 credits , PAC

Develops the basic components of physical fitness for students through participation in an aerobic circuit weight training program. The advanced super-circuit aerobics program utilizes a combination of endurance and strength machines to provide one of the most effective conditioning methods known for developing more advanced levels of physical fitness. Lab hours are required for this course.

Prerequisite: None

PHED 214 Applied Baseball II
1 credit , PAC
Quarter(s): F

Provides baseball student athletes an additional opportunity to refine their skills, strategies, and understanding of rules of play. Required for all second year baseball student athletes. Lab hours are required for this course.

Prerequisite: Instructor permission

PHED 215 Outdoor Skills Experience
2 credits , ELEC , PAC
Quarter(s): S

Provides local outdoor fitness activities and opportunities to learn the importance of teamwork and outdoor wilderness safety. Typical activities may include hiking, rock climbing, kayaking, biking, orienteering, and team building activities. Actual activities may vary according to the season and equipment availability. Students must be in good physical condition before taking this course. Equipment rental fees vary quarter to quarter, and are the responsibility of the student. Details about costs and specific activities will be provided at the first class session or by contacting the instructor. Two to three off-campus field trips are a required part of this course. Lab hours are required for this course.

Prerequisites: None

PHED 216 Winter Outdoor Experience
2 credits , ELEC , PAC
Quarter(s): W

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. Lab hours are required for this course.

Prerequisites: None

PHED 217 Applied Soccer II
1 credit , PAC
Quarter(s): F

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. Lab hours are required for this course.

Prerequisite: Instructor permission

PHED 218 Applied Softball II
1 credit , PAC
Quarter(s): F

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. Lab hours are required for this course.

Prerequisite: Instructor permission

PHED 220 Cross-Training
2 credits , PAC
Quarter(s): F

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. Lab hours are required for this course.

Prerequisite: None

PHED 226 Aerobic Exercise
1 – 2 credits , PAC , REEL
Quarter(s): F

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. Lab hours are required for this course.

Prerequisite: None

PHED 227 Zumba II
1 – 2 credits , 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. Lab hours are required for this course.

Prerequisite: None

PHED 228 Advanced Weight Training
2 credits , PAC , REEL
Quarter(s): S, F, W, Sp

Covers more advanced topics in the weight room, related to strength training equipment. Expands on prior knowledge of weight training techniques to improve muscular strength and endurance, flexibility, and cardiorespiratory fitness. Explores general health and physical education topics such as muscle recovery, hydration, sleep, and nutrition. Lab hours are required for this course.

Prerequisite: None

PHED 229 Aqua Zumba II
1 – 2 credits , ELEC

Blends the Zumba formula and philosophy with traditional aqua fitness disciplines into a safe, challenging, water-based workout that's body-toning and cardio-conditioning. Lap swim is also available during this time. Lab hours are required for this course.

Prerequisite: None

PHED 230 Swimming
1 credit

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. Lab hours are required for this course.

Prerequisite: None

PHED 235 Fitness Walking
1 – 2 credits , PAC
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisite: None

PHED 236 Men's Applied Basketball II
1 credit , PAC
Quarter(s): F

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. Lab hours are required for this course.

Prerequisite: Instructor permission

PHED 237 Women's Applied Basketball II
1 credit , PAC
Quarter(s): F

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. Lab hours are required for this course.

Prerequisite: Instructor permission

PHED 238 Applied Volleyball II
1 credit , PAC
Quarter(s): W

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. Lab hours are required for this course.

Prerequisite: Instructor permission

PHED 246 Fast-pitch Softball-Women
1 credit , PAC
Quarter(s): F

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. Lab hours are required for this course.

Prerequisite: None

PHED 252 Personalized Fitness
1 – 2 credits , PAC , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisite: None

PHED 285 Fitness Marketing
3 credits , ELEC
Quarter(s): F

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 Cooperative Work Experience
1 – 15 credits

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 Personal Training Instruction
5 credits , ELEC
Quarter(s): Sp

Provides content and skills necessary to become effective personal trainers and to prepare for the ACE Personal Trainer Certification Exam. 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. Lab hours are required for this course.

Prerequisites: None

PHED 296 Group Exercise Instruction
3 credits , ELEC
Quarter(s): Sp

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 Independent Study
1 – 10 credits

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 Physical Science
5 credits , 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. Lab hours are required for this course.

Prerequisite: None

PHSC 109 Energy and Matter: Physical Sciences
5 credits , NSL
Quarter(s): F

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. Lab hours are required for this course.

Prerequisite: None

Physics (PHYS)

PHYS& 100 Physics Non-Sci Majors
5 credits , NSL
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisites: MATH 88 OR MATH 97 OR CCP 88 OR CCP 97 OR permission of the instructor.

PHYS& 114 General Phys I w/Lab
5 credits , NSL
Quarter(s): F

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. Lab hours are required for this course.

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 General Phys II w/Lab
5 credits , NSL
Quarter(s): W

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. Lab hours are required for this course.

Prerequisites: PHYS& 114 or Instructor Permission.

PHYS& 116 General Phys III w/Lab
5 credits , NSL
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisite: PHYS& 115 (was PHYS 102) or instructor permission.

PHYS& 221 Engr Physics I w/Lab
5 credits , NSL
Quarter(s): F

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. Lab hours are required for this course.

Prerequisites: Completion of or concurrent enrollment in MATH& 151 or instructor permission.

PHYS& 222 Engr Physics II w/Lab
5 credits , NSL
Quarter(s): W

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, oscillilatory 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. Lab hours are required for this course.

Prerequisites: PHYS& 221, MATH& 152 or instructor permission.

PHYS& 223 Engr Physics III w/Lab
5 credits , NSL
Quarter(s): Sp

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. Lab hours are required for this course.

Prerequisites: PHYS& 222 or instructor permission.

PHYS 288 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 Introduction to Political Science
5 credits , SOCS
Quarter(s): Sp

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 US Government
5 credits , SOCS
Quarter(s): F, W, Sp

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 International Relations
5 credits , SOCS
Quarter(s): F, W, Sp

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 Comparative Government
5 credits , 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 Law and Social Issues
5 credits , SOCS
Quarter(s): Sp

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 Cooperative Work Experience
1 – 15 credits

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 Selected Topics in Political Science I
1 – 5 credits
Quarter(s): W

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 Selected Topics In Political Science II
1 – 5 credits

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 Selected Topics In Political Science III
1 – 5 credits

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 Selected Topics in Political Science IV
1 – 5 credits

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 Independent Study
1 – 10 credits

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 Industrial & Predictive Maintenance Fundamentals
5 credits , REEL
Quarter(s): W

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 Electrical and Electronic Fundamentals
6 credits , REEL
Quarter(s): F

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. Lab hours are required for this course.

Prerequisites: MATH 78/79 or higher or CCP 79 or concurrent enrollment, or instructor permission

PMFG 151 Process Control Equipment
5 credits , REEL
Quarter(s): F

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 Fundamentals of Instrumentation and PLCs
5 credits , 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 Electrical Control Equipment
3 credits , REEL
Quarter(s): W

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 Electric Motors
2 credits , REEL
Quarter(s): Sp

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 Advanced Industrial Maintenance
5 credits , REEL
Quarter(s): Sp

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 Introduction to Renewable Energy
5 credits , REEL
Quarter(s): Sp

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 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 General Psychology
5 credits , SOCS
Quarter(s): S, F, W, Sp

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 Lifespan Psychology
5 credits , SOCS
Quarter(s): S, F, W, Sp

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 Psychological Disorders
5 credits , SOCS
Quarter(s): W, Sp

Introduces the theories of psychopathology. Examines abnormal human behavior, its history, description, etiology and diagnosis. Addresses identification, treatment and major diagnostic categories such as schizophrenia, personality, mood, anxiety, and organic brain disorders.

Prerequisite: PSYC& 100 or instructor permission

PSYC 150 Psychosocial Issues in Health Care I
2 credits , SOCS
Quarter(s): F, W, Sp

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 Special Topics in General Psychology
1 – 2 credits , SOCS
Quarter(s): Sp

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 Psychosocial Issues in Health Care II
3 credits , SOCS
Quarter(s): F, W, Sp

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 Psychosocial Issues in Health Care
5 credits , SOCS
Quarter(s): W

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 Cooperative Work Experience
1 – 15 credits
Quarter(s): S, F, W, Sp

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 Special Topics in Lifespan Psychology
1 – 2 credits , SOCS
Quarter(s): Sp

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 Independent Study
1 – 10 credits

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 Leadership and Organizational Psychology
5 credits , SOCS
Quarter(s): Sp

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

Robotics (ROBT)

ROBT 260 Introduction to Robotics
5 credits , REEL
Quarter(s): S, F, W, Sp

Offers a comprehensive introduction to the field of robotics, focusing on the fundamental principles of robot mechanics, control systems, and programming. Explores the basic components of robotic systems, including actuators, sensors, and controllers, as well as the underlying concepts of robot kinematics and dynamics. Emphasizes

hands-on experience, allowing students to design, build, and program simple robotic systems to perform specific tasks. Understand and apply foundational robotic concepts in both theoretical and practical settings. Lab hours are required for this course.

Prerequisites: None

ROBT 270 Robotics in Automation
5 credits , REEL
Quarter(s): S, F, W, Sp

Provides an in-depth exploration of robotics and their role in industrial automation. Learn the principles of robot operation, kinematics, programming, and integration within automated systems. Covers key topics such as robotic motion control, end-effectors, sensors, and safety protocols in automated environments. Gain hands-on experience in programming and configuring industrial robots to perform various tasks in manufacturing and production processes through practical labs and projects. Design, program, and optimize robotic systems for efficient automation solutions. Lab hours are required for this course.

Prerequisite: ROBT 260 Introduction to Robotics

Sociology (SOC)

SOC& 101 Introduction to Sociology: DIV
5 credits , SOCS , DIV
Quarter(s): S, F, W, Sp

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 Social Problems: The Pursuit of Social Justice DIV
5 credits , DIV , SOCS

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 Human Sexuality: DIV
5 credits , 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 Race and Ethnicity: DIV
5 credits , 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 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 Spanish I: DIV
5 credits , DIV , HUM
Quarter(s): S, F, W, Sp

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 Spanish II: DIV
5 credits , DIV , HUM
Quarter(s): S, F, W, Sp

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 Spanish III: DIV
5 credits , DIV , HUM
Quarter(s): S, F, W, Sp

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
5 credits , HUM
Quarter(s): S, F, W, Sp

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
5 credits , HUM
Quarter(s): S, F, W, Sp

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 Spanish VI
5 credits , HUM
Quarter(s): S, F, W, Sp

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 Introduction to Spanish in the Workplace
3 – 5 credits

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 Introduction to Spanish in the Workplace
3 – 5 credits

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 Spanish in the Workplace
3 – 5 credits

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 Spanish in the Workplace
3 – 5 credits

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 Cooperative Work Experience
1 – 15 credits
Quarter(s): F, W

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 Independent Study
1 – 10 credits

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 Spanish Grammar for Beginners: Present Tense Verbs
2 credits

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.) Lab hours are required for this course.

Prerequisite: None

SPAN 98 Spanish Grammar for Beginners: Nouns/Modifiers
1 credit

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.) Lab hours are required for this course.

Prerequisite: None

Substance Use Disorder Studies (SUDS)

SUDS 101 Introduction to Substance Use Disorders
5 credits , SOCS
Quarter(s): S, F, W, Sp

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 Introduction to Theories and Counseling
3 credits , REEL
Quarter(s): W

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 Substance Use Disorders/ Domestic Violence
3 credits , REEL
Quarter(s): W

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 Adolescent Substance Use Disorder Assessment and Treatment
3 credits , REEL
Quarter(s): Sp

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 Process of Addiction and Compulsive Behaviors
4 credits , REEL
Quarter(s): F

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 Alcohol/Drug Pathophysiology and Pharmacology
3 credits , REEL
Quarter(s): Sp

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 Record Keeping and Case Management
3 credits , REEL
Quarter(s): Sp

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 or care for SUD treatment.

Prerequisites: SUDS 101, 102, 113

SUDS 113 Substance Abuse and Addiction Treatment Methods
3 credits , REEL
Quarter(s): F

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.

Prerequisite: SUDS 101 Corequisite: SUDS 101

SUDS 114 Suicide Assessment, Prevention, and Crisis Management
2 credits , REEL
Quarter(s): W

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 SUD Professional and Ethical Responsibilities
3 credits , REEL
Quarter(s): W

Explores the history of legal, ethical and professional codes applicable to the substance use disorder profession. Examines ethical decision making, confidentially, boundaries and maintaining the professional counselor/client relationship within a multicultural context.

Prerequisites: None

SUDS 201 SUD and the Family System
3 credits , REEL
Quarter(s): Sp

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 SUD Counseling with Diverse Populations
3 credits , REEL
Quarter(s): F

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 Relapse Prevention and Intervention
3 credits , REEL
Quarter(s): W

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 Group Counseling: Theories and Applications
3 credits , REEL
Quarter(s): F

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 Co-Occurring Disorders: Mental Health Disorders in SUDS
3 credits , REEL
Quarter(s): Sp

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 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 Advanced Principles of Technology
5 credits , 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 Cooperative Work Experience
1 – 15 credits

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 Independent Study
1 – 10 credits

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 Related Welding
1 – 6 credits , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisites: None

WELD 141 SMAW - Stick Welding with E7018
1 – 10 credits , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisite: None

WELD 142 Advanced SMAW - WABO
1 – 10 credits , REEL
Quarter(s): S, F, W, Sp

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). Lab hours are required for this course.

Prerequisites: WELD 141 or Instructor Permission

WELD 143 SMAW - Stick Welding with E6010
1 – 10 credits , REEL
Quarter(s): S, F, W, Sp

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). Lab hours are required for this course.

Prerequisites: WELD 142 or Instructor Permission

WELD 158 Welding Theory and Fabrication
5 credits , REEL
Quarter(s): Sp

Covers theoretical and practical applications of welding processes and metal fabrication. Work on project is required outside of class. Lab hours are required for this course.

Prerequisite: WELD 141 or instructor permission

WELD 241 FCAW-G - Dual Shield Wire Feed Welding with E71T-1
1 – 10 credits , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisites: None

WELD 242 Advanced FCAW-G - WABO
1 – 6 credits , REEL
Quarter(s): S, F, W, Sp

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). Lab hours are required for this course.

Prerequisites: WELD 241 or Instructor Permission

WELD 243 GMAW - Solid Wire Feed Welding with ER70S-6 and ER5356
1 – 6 credits , REEL
Quarter(s): S, F, W, Sp

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. Lab hours are required for this course.

Prerequisite: WELD 241 or Instructor Permission

WELD 255 GTAW - Tig Welding with ER70S-6 and ER5356
1 – 10 credits , REEL
Quarter(s): S, F, W, Sp

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). Lab hours are required for this course.

Prerequisites: None

WELD 288 Cooperative Work Experience
1 – 15 credits , REEL
Quarter(s): S, F, W, Sp

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 Independent Study
1 – 10 credits
Quarter(s): S, F, W, Sp

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 WABO Exam Preparation
1 – 6 credits , REEL
Quarter(s): F, W, Sp

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. Lab hours are required for this course.

Prerequisites: Instructor permission required to enroll.

WELD 70 Welding Certification (WABO Retest)
0 credits
Quarter(s): S, F, W, Sp

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 Welding Support I
1 credit
Quarter(s): F

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 Welding Support II
1 credit
Quarter(s): W

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 Welding Certification (WABO Exam)
0 credits

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 Investigations Into Economic Class In America
5 credits

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 Integrated College Experience (ICE)
1 – 12 credits
Quarter(s): S, F, W, Sp

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 Educational Interview
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Educational Interview II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Educational Interview III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Educational Interview IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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 I-BEST Support
1 – 20 credits
Quarter(s): S, F, W, Sp

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 I-BEST Support II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 I-BEST Support III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 I-BEST Support IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Spanish Culture and Language
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP English 098
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math Level B
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Lab Science
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Civics
5 credits
Quarter(s): S, F, W, Sp

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 35 Chemistry w/Lab
5 credits
Quarter(s): S, F, W, Sp

Examines the chemical principles underlying ecological systems, focusing on the interactions between organisms and their environments. Students explore matter and energy flow, chemical cycles, and environmental change through laboratory investigations and project-based learning. Simultaneously, students strengthen English language arts skills in reading, writing, and critical thinking by analyzing scientific texts, constructing evidence-based arguments, and communicating findings. This course includes Washington State High School standards in science and English language arts, strengthening basic academic skills and preparing students for college and career readiness. Lab credits are required for this course.

Prerequisites: None

YR 36 Ecology w/ Lab
5 credits
Quarter(s): S, F, W, Sp

Introduces key ecological concepts through hands-on scientific investigation. Students will explore ecosystems, energy flow, and biogeochemical cycles while analyzing population dynamics, community interactions, and ecosystem-level processes. Emphasis is placed on using the scientific method, collecting and analyzing data, and applying scientific reasoning to draw evidence-based conclusions. Lab safety, collaboration, and critical thinking are central as students conduct experiments, evaluate results, and refine scientific practices. This course includes Washington State High School standards in science and English language arts, strengthening basic academic skills and preparing students for college and career readiness. Lab credits are required for this course.

Prerequisites: None

YR 37 COLL 101
5 credits
Quarter(s): S, F, W, Sp

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 38 Health
5 credits
Quarter(s): S, F, W, Sp

Strengthen basic academic skills while focusing on health and nutrition in order to enhance their personal, social, and workplace environments in a health course. Students will gain an understanding of the effects nutrition 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 40 Electives
5 credits
Quarter(s): S, F, W, Sp

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 CCP English
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Biology w/Lab
5 credits
Quarter(s): S, F, W, Sp

Introduces students to the fundamental principles of life, including the characteristics of living organisms, cell structure, and the role of DNA in inheritance and cellular function. Through hands-on investigations, students will explore the differences between prokaryotic and eukaryotic cells, analyze genetic information, and practice evaluating scientific claims in media and online sources. Emphasis is placed on safe lab practices, data collection and analysis, and clear communication of findings using scientific language and visuals. This course includes Washington State High School standards in science and English language arts, strengthening basic academic skills and preparing students for college and career readiness. Lab credits are required for this course.

Prerequisites: None

YR 44 US History
5 credits
Quarter(s): S, F, W, Sp

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 Washington State History
5 credits
Quarter(s): S, F, W, Sp

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 Current World History
5 credits
Quarter(s): S, F, W, Sp

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 Occupational
5 credits
Quarter(s): S, F, W, Sp

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 Fitness
5 credits
Quarter(s): S, F, W, Sp

Strengthen basic academic skills while focusing on health, nutrition, and fitness in order to enhance their personal, social, and workplace environments in a Fitness Education course. Students will gain an understanding of the effects 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 Fine Arts
5 credits
Quarter(s): S, F, W, Sp

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 Contextualized Integrated Eng & Math
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Contextualized Integrated Eng & Math II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Contextualized Integrated Eng & Math III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Contextualized Integrated Eng & Math IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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 58 Fitness II
5 credits
Quarter(s): S, F, W, Sp

Empowers students to explore and embrace a physically active lifestyle that supports their college, career, and personal goals. Students will evaluate the benefits of regular activity, identify accessible fitness opportunities in their local environment, and participate in self-selected activities that promote enjoyment, self-expression, and personal growth. Through the design and

implementation of individualized strength, conditioning, and nutrition plans, students will focus on creating muscular balance and maintaining healthy body composition. Emphasis will be placed on selecting appropriate challenges to foster success, building social support, and applying best practices for safe participation in physical activity, preparing students to lead active, balanced lives both now and in the future. This course includes Washington State High School standards in science and English language arts, strengthening basic academic skills and preparing students for college and career readiness.

Prerequisites: None

YR 68 Geometry
5 credits
Quarter(s): S, F, W, Sp

Builds a strong foundation in geometric reasoning and problem-solving through the exploration of shapes, measurements, and mathematical relationships. Students will apply theorems related to parallel lines, quadrilaterals, and circles, use the Pythagorean theorem, and prove triangle congruence and similarity. They will solve problems involving perimeter, area, volume, and surface area of common figures, while using graphs, tables, charts, and algebraic models to communicate solutions. Real-world applications in design, construction, and navigation help students connect geometric concepts to practical situations. This course includes Washington State High School standards in math, strengthening basic academic skills and preparing students for college and career readiness.

Prerequisites: None

YR 71 Contextualized English
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Contextualized English II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Contextualized English III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Contextualized English IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Pre-Algebra Math 79/Level C
5 credits
Quarter(s): S, F, W, Sp

Builds a strong foundation in essential math concepts. Topics include operations with whole numbers, decimals, and fractions; understanding place value and number systems; solving problems involving ratios, measurement, and data; and exploring expressions, equations, and basic algebraic thinking. Through real-world applications, hands-on activities, and a focus on mathematical reasoning and problem-solving, students will develop the skills and confidence needed for success in higher-level math and everyday life.

Prerequisites: None

YR 81 Pre-College English
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Pre-College English II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Pre-College English III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Pre-College English IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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 Algebra I Math 88/Level D
5 credits
Quarter(s): S, F, W, Sp

Develops students¿ understanding of rational numbers, proportional relationships, expressions, equations, and functions, while reinforcing essential skills with fractions, integers, and the coordinate plane. Students explore the number system, apply operations to rational numbers, and analyze linear and proportional relationships to solve real-world problems. Through modeling, problem solving, and reasoning, they investigate functions, work with radicals and exponents, and use equations to represent and solve mathematical and everyday situations. This course includes Washington State High School standards in math, strengthening basic academic skills and preparing students for college and career readiness.

Prerequisites: CASAS appraisal exam and score of 236-245, completion of pre-algebra (Math C), or instructor approval.

YR 91 English 9 (Level B)
5 credits
Quarter(s): S, F, W, Sp

Supports high school completion while building foundational literacy and communication skills for college and career readiness. Students will use literary and informational texts to identify key ideas, analyze relationships between events or concepts, and compare perspectives across sources. Emphasis is placed on asking and answering questions, using text features, interpreting illustrations, and determining the purpose and structure of texts. Writing instruction includes opinion, informative, and narrative formats, focusing on organization, sequencing, and clarity. Students will conduct short research projects and use technology to publish writing and collaborate with peers. Through relevant, real-world topics, students develop critical thinking, reading comprehension, and effective writing strategies that prepare them for continued academic and professional success.

Prerequisites: None

YR 92 English 10 (Level C)
5 credits
Quarter(s): S, F, W, Sp

Designed to meet high school English requirements while building key literacy, communication, and academic skills needed for success in college, careers, and life. Students will analyze literary and informational texts to identify main ideas, themes, structures, and viewpoints, using accurate evidence to support their interpretations. Integrated research projects and the use of technology allow students to build knowledge across subject areas and develop confidence in sourcing, summarizing, and presenting information. This course supports high school diploma attainment while preparing students for continued academic and career-focused learning.

Prerequisites: None

YR 93 English 11 (Level D)
5 credits
Quarter(s): S, F, W, Sp

Analyzes and evaluates complex literary and informational texts, focusing on how authors develop ideas, structure arguments, and present evidence across different media formats. Instruction integrates real-world topics and cross-disciplinary content to promote engagement and relevance. This course supports students in completing their high school diploma while preparing them for college-level work, technical training, and career pathways.

Prerequisites: None

YR 94 English 12 (Level E)
5 credits
Quarter(s): S, F, W, Sp

Develops essential reading, writing, and critical thinking skills to support high school completion. Integrated, cross-content learning opportunities help students build the academic habits and literacy skills necessary for college coursework, technical training, and the workplace. Students will engage in research, apply academic vocabulary, and strengthen digital literacy through technology-enhanced writing tasks.

Prerequisites: None

YR 97 Math 97/D Enhanced
5 credits
Quarter(s): S, F, W, Sp

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 Algebra II Math 98/Level E
5 credits
Quarter(s): S, F, W, Sp

Extends student knowledge to interpret and build algebraic expressions and equations, solve systems, and represent relationships graphically. The course emphasizes modeling with functions¿including linear, quadratic, and exponential¿analyzing data, and applying geometric concepts in real-world contexts. This course includes Washington State High School standards in math, strengthening basic academic skills and preparing students for college and career readiness.

Prerequisites: CASAS appraisal exam and score of 246 and higher, completion of Algebra I (Math D), or instructor approval.

YRNG 61 CCP Math Level B
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math Level B II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math Level B III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math Level B IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 78/Level C
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 78/Level C II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 78/Level C III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 78/Level C IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 88/Level D
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 87/D Enhanced
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 88/Level D II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 87/D Enhanced II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 88/Level D III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 87/D Enhanced III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 88/Level D IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 87/D enhanced IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 98/Level E
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 98/Level E II
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 98/Level E III
1 – 20 credits
Quarter(s): S, F, W, Sp

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 CCP Math 98/Level E IV
1 – 20 credits
Quarter(s): S, F, W, Sp

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

Distribution/ Diversity Course Lists

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

Distribution List

See program planners (lowercolumbia.edu/publications/catalog/programs) for specific requirements.

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

Humanities[1]

[2]Performance Skills Courses/max 5 cr.

[3]No more than 5 credits in foreign language at the 100 level.

- **ART&** 100
- **ART** 101[2], 102[2], 103[2], 106, 107, 108[2], 111[2], 112[2], 113[2], 121, 122, 123, 131, 132, 133, 141[2], 142[2], 143[2], 151[2], 152[2], 200, 224, 226, 227, 228, 230
- **ASL&** 121[3], 122[3], 123[3]
- **CMST&** 210 (was SPCH 104), 220 (was SPCH 110), 230 (was SPCH 114), 240 (was CMST 250)
- **DANCE** 100[2], 105[2], 110[2], 151[2], 152[2], 153[2], 251[2], 252[2], 253[2]
- **DRMA&** 101
- **DRMA** 106[2], 107[2], 108[2]
- **ENGL&** 111, 112, 235, 236, 237, 238, 244, 254
- **ENGL** 204, 215, 233, 245, 256, 270, 280
- **HIST&** 126
- **HUM&** 116, 117, 118
- **HUM** 104, 107, 109, 120, 124, 125, 126, 131, 150, 164, 210, 230, 250, 251, 255, 315
- **MUSC&** 105, 141, 142, 143, 241, 242, 243
- **MUSC** 100, 106, 107, 108, 115[2], 121[2], 122[2], 123[2], 130[2], 131[2], 132[2], 133[2], 135[2], 150[2], 151[2], 152[2], 153[2], 176[2], 177[2], 178[2], 221[2], 222[2], 223[2], 251[2], 252[2], 253[2], 276[2], 277[2], 278[2]
- **OLTM** 440
- **PHIL&** 101
- **PHIL** 260
- **SPAN&** 121[3], 122[3], 123[3], 221, 222, 223

Natural Sciences[1]

[4]Lab Courses

- **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

Physical Sciences

- **CHEM&** 110[4], 121[4], 131[4], 161[4], 162[4], 163[4], 261[4], 262[4], 263[4]
- **CHEM** 231[4]
- **PHYS&** 100[4], 114[4], 115[4], 116[4], 221[4], 222[4], and 223[4]
- **PHSC** 108[4], and 109[4]

Biological Sciences

- **ANTH&** 205
- **BIOL&** 100[4], 160[4],221[4], 222[4], 223[4],241[4], 242[4], 260[4]
- **BIOL** 109[4], 127, 130[4], 150[4], 179[4], 297, 298
- **NUTR&** 101
- **NUTR** 201, 298

Earth Sciences

- **ASTR&** 101[4]
- **ERSI** 104[4] or 105[4], 109[4]
- **ENVS&** 100

- **ENVS** 215[4], 440
- **GEOG** 105[4], 297[4]
- **GEOL&** 101[4] and 208[4]
- **GEOL** 105[4], 118[4], 124, 297[4]
- **OCEA&** 101[4]

Social Sciences[1]

- **ANTH&** 100, 204, 206
- **BUS&** 101, 201
- **BUS** 144,
- **CJ&** 101, 105, 106, 110
- **CJ** 104, 154, 184
- **ECON&** 201, 202
- **ECON** 105
- **EDUC&** 115
- **EDUC** 319,
- **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, 220
- **PSYC** 150, 198, 250, 255, 298, 320
- **SOC&** 101, 201
- **SOC** 210, 225
- **SUDS** 101

Restricted Course List

[5]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
- **BTEC**—all courses
- **COLL** - all courses
- **CS** - all courses except CS 110, 170, 175, 208, 310, 318, 320, 334, 340, 350, 402, 410, 420, 430, 435, 440, 450, 455, 495
- **DHET** – all courses
- **DRFT** – all courses
- **ECED** – all courses except ECED& 100, 105, 120, 180
- **EDUC** – all courses except EDUC& 115, 150, 202, 205, 319
- **HLTH** 100, 105, 110
- **HDEV** – all courses
- **IMIN** – 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
- **OLTM** – 449
- [5]**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
- **ROBT** – all courses
- **SUDS** – all courses except SUDS 101
- **TECH** – 100
- **WELD** – all courses

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

Course Number	Course Name
BUS 144	Management of Human Relations
CMST& 240	Intercultural Communication
EDUC& 202	Intro to Education
EDUC& 205	Introduction to Education w/Field Experience
EDUC 319	Anti-Bias Education
ENGL& 238	Creative Writing III: Nonfiction: DIV
ENGL 245	Contemporary Literature
ENGL& 254	World Literature I
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
SOC 210	Human Sexuality
SOC 225	Race and Ethnicity
SPAN& 121	Spanish I
SPAN& 122	Spanish II
SPAN& 123	Spanish III

High School Programs

Career and Technical Education (CTE) Dual Credit

CTE Dual Credit allows high school students to earn high school and college credit at the same time, saving money and getting a head start on college and career pathways. Through partnerships with local school districts, students who successfully complete approved CTE courses with a grade of B or better can earn free college credit that aligns with professional/technical programs at LCC. High school CTE teachers and college faculty work together to ensure courses meet industry standards, giving students a strong foundation for high-demand careers.

Phone number (Student Contact):(360) 442-2496
Phone number (District Contact):(360) 353-7802
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 collaborative partnership between local school districts and Lower Columbia College. Through this program, qualified high school instructors teach college-level courses within their own classrooms, ensuring alignment with the same learning objectives as those taught on the LCC campus. Working closely with LCC faculty liaisons, instructors maintain academic rigor and course equivalency. Upon successful completion, students earn both high school and college credit. High school instructors must apply to the program and receive approval for their course to participate.

Phone number:(360) 442-2370
Webpage:lowercolumbia.edu/chs
Located in the Alan Thompson Library (LIB) 136

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/ccp/ccp
Located in the Admissions Center (ADC) 151

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/ccp/hs-plus
Located in the Admissions Center (ADC) 151

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) 442-2692
Webpage:lowercolumbia.edu/high-school-programs/open-doors
Located in Physical Science (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

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/ccp/ccp
Located in the Admissions Center (ADC) 151

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 Columbia Elementary in Woodland. 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/ccp/ell
Located in the Admissions Center (ADC) 151

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 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 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 Management Associate in Applied Science (AAS)
- 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)
- 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/ccp/ibest
Located in the Admissions Center (ADC) 151

Professional and Continuing Education

Lower Columbia College Professional and Continuing Education (PACE) is your partner in achieving personal and professional goals.

Whether you're an individual, business, or organization, PACE offers a comprehensive range of personal enrichment classes, customized training, and workforce programs tailored to your needs. Dive into various disciplines including business, health, arts, science, workforce certification, and technology, all designed to fuel your success.

We provide flexible learning options, including online classes, ensuring accessibility and convenience. Businesses can thrive with our customized training plans, strategically crafted to meet specific objectives. With Professional and Continuing Education, lifelong learning is fulfilling and accessible to all.

Reach out to us today and discover how we can support your journey towards success. There's something for everyone with PACE. Let's promote your success together! See below for contact and other important information.

Phone number:(360) 442-2600
Webpage:lowercolumbia.edu/ce
Email: ehoff@lowercolumbia.edu

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