



# Schedule



*Fall Preview  
2023*

Fall term classes begin September 25 • [www.clackamas.edu](http://www.clackamas.edu) • Go Far, Close to Home.

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### Non-Discrimination

*Clackamas Community College does not discriminate on the basis of race, color, religion, gender, sexual orientation, marital status, age, national origin/ancestry, disability, family relationship or any other protected status in accordance with applicable law. The college's commitment to nondiscrimination applies to curriculum activity and all aspects of operation of the college.*

### 3 Convenient Campuses

#### Oregon City

19600 Molalla Ave.  
Oregon City, OR 97045

#### Wilsonville

29353 SW Town Center Loop E.  
Wilsonville, OR 97070

#### Harmony

7738 SE Harmony Road  
Milwaukie, OR 97222



# IMPORTANT DATES TO REMEMBER

<b>CLASS START/END DATES + FINANCIAL DEADLINES *</b>	<b>FALL TERM 2023</b>	<b>WINTER TERM 2024</b>	<b>SPRING TERM 2024</b>
<b>Financial aid:</b> All required CCC financial aid documentation due to ensure funding for term	June 26	Sept. 25	Jan. 8
<b>Registration begins</b>	May 22	Nov. 13	Feb. 26
<b>Classes begin</b>	Sept. 25	Jan. 8	April 1
Last day to add classes without instructor consent	Instructor consent required once course begins		
Last day to drop a class with a refund (see p. 4 for more info)	Oct. 8	Jan. 21	April 14
Last day to drop classes and receive a "W" automatically	Nov. 17	March 1	May 24
Last day to submit petition for graduation	Nov. 3	Feb. 16	May 10
Last day to change grading option	Dec. 1	March 15	June 7
Account balance due: \$100 non-payment fee applied if not paid	Nov. 3	Feb. 16	May 10
<b>Finals week</b>	Dec. 4-8	March 18-23	June 10-15
<b>Last day of term</b>	Dec. 9	March 23	June 15
Commencement: GED & Adult High School Diploma	June 14, 2024		
Commencement: College Certificate & Degree	June 14, 2024		

\* *Deadlines are the end of the business day unless otherwise noted. All calendar dates are subject to change without prior notice.*

### HOLIDAYS AND CAMPUS CLOSURES

<b>FALL TERM:</b> Nov. 11 Veterans Day, Nov. 23 & 24 Thanksgiving, Dec. 25 & 26 Winter Holiday
<b>WINTER TERM:</b> Jan. 1 New Years Day, Jan. 15 MLK Jr Day, Feb. 19 Presidents Day
<b>SPRING TERM:</b> May 27 Memorial Day

### FINAL EXAM SCHEDULE

Refer to your class syllabus or check with your instructor for the final week schedule. The final week schedule will be posted in your myClackamas account as soon as it is available.



# New Students

If you are a new student with no previous CCC credits, follow these 6 steps to get started. For more information visit [www.clackamas.edu/gettingstarted](http://www.clackamas.edu/gettingstarted).

**1 APPLY TO CCC.** Visit [www.clackamas.edu/apply](http://www.clackamas.edu/apply). Once you receive your welcome email, log in to Navigate to review your to-do list, which will walk you through your next steps. \*TIP: Log in to your myClackamas account frequently—it is CCC's primary means of communicating with students!

**2 APPLY FOR FINANCIAL AID AND SCHOLARSHIPS** (IF APPLICABLE). U.S. Citizens and permanent residents: Apply at [www.fafsa.gov](http://www.fafsa.gov). Undocumented Oregon residents: Complete the ORSAA at [www.oregonstudentaid.gov](http://www.oregonstudentaid.gov). The ORSAA is for undocumented Oregon students, including students who have DACA (Deferred Action for Childhood Arrivals) status. Apply for CCC Foundation Scholarships at [www.clackamas.edu/scholarships](http://www.clackamas.edu/scholarships).

**3 SUBMIT PREVIOUS COLLEGE TRANSCRIPTS** (IF APPLICABLE). CCC Degree/Certificate Seeking: If you are transferring to CCC from a regionally-accredited U.S. institution, or if you have AP, CLEP, IB or DSST scores, submit your official transcripts to Graduation Services. Non-Degree/ Certificate Seeking: If a course requisite waiver is needed, submit unofficial transcripts to Advising & Career Services. Visit [www.clackamas.edu/transferring-to-ccc](http://www.clackamas.edu/transferring-to-ccc) for details.

**4 DETERMINE PLACEMENT.** Math and writing placements must be completed prior to registration. Visit [www.clackamas.edu/pass](http://www.clackamas.edu/pass) for steps to complete your placement assessment.

**5 COMPLETE NEW STUDENT ORIENTATION.** Available online via your myClackamas account, your orientation will familiarize you with CCC's resources, degree and certificate programs, student life, and more. Orientation must be completed before registering for classes.

**6 REGISTER FOR CLASSES.** For help choosing and registering for your classes, visit our [Advising page](#) to schedule an appointment.



# Returning Students

**Returning CCC student? Start here.**

If you have taken classes or workshops at CCC within the last three years there's no need to reapply for admission! You're ready to register for classes online through myClackamas.

**1 NOTIFY ENROLLMENT SERVICES** if you've changed your major/program of study, address or phone number by emailing [registration@clackamas.edu](mailto:registration@clackamas.edu) or visiting the Enrollment Services Center at any of our three campuses.

**2 CLEAR OUTSTANDING DEBT** or prior term balances at any CCC Enrollment Services Center.

**3 REVIEW YOUR EDUCATION PLAN** with an academic advisor.

**4 REGISTER FOR CLASSES** online through myClackamas — <http://my.clackamas.edu>. You can also register by mail, fax or in person at any of our three campuses. Registration forms are available at [www.clackamas.edu/forms](http://www.clackamas.edu/forms).

**5 PAY YOUR TUITION AND FEES** online or in person. Tuition rates, payment and important dates can be found on the following page.



**MORE QUESTIONS?** Our Admissions Welcome Center is here to help you get started at CCC. Call: 503-594-3284. Email: [welcome@clackamas.edu](mailto:welcome@clackamas.edu)

Como Inscribirse  
[www.clackamas.edu/espanol](http://www.clackamas.edu/espanol)

# Money, registration and myClackamas – WHAT YOU NEED TO KNOW!

## College Services Fee

A non-refundable \$30 per term fee will be applied to students taking credit courses. The College Services Fee covers the cost of various services including graduation, parking, shuttle, testing and transcripts. The fee is applied at the time of registration for students registering for one or more credits.

## Refunds

If you stop going to class and you don't officially drop the classes from your schedule, you will be held academically and financially responsible.

See p.7 for important information about Financial Aid and refund deadlines.

## myClackamas

myClackamas is your portal to all things CCC. This secure site allows you to check your CCC assigned email, register and pay for classes, access financial aid documents and more.

After you are admitted to CCC, an email with your new CCC student email address and instructions for logging into myClackamas will be sent to the secondary email account (gmail, yahoo, etc.) you provided on your admission application.

If you applied for admission and:

- Don't know your CCC email address, go to myClackamas (<https://my.clackamas.edu>) and choose "Forgot your email address?"
- Don't know your password, go to myClackamas (<https://my.clackamas.edu>) and choose "Forgot Password?" Follow the directions provided.
- Still need help with this process, go to myClackamas (<https://my.clackamas.edu>) and click the help button or call 503-594-6074.

If you are a current CCC student and:

- Don't have a CCC email address:
  - Contact Enrollment Services at [registration@clackamas.edu](mailto:registration@clackamas.edu) and provide a secondary email account (gmail, yahoo, etc.). An email with instructions for logging into myClackamas will be sent to that account.
- Are experiencing problems logging into your myClackamas account:
  - Contact Enrollment Services at 503-594-6074.

**NOTE:** Your CCC email account is the primary method of communication between you and the college. Be sure to check your email at least twice a week through myClackamas.

## Registration

Registration is based on the number of completed credits at CCC (credits completed at other colleges are not counted for registration purposes). Courses in progress during the current term do not count toward this total. Registration is done online (myClackamas), in person or by mail/fax. Registration times:

CREDITS	DATE	TIME
Veterans	Monday, May 22, 2023	Noon
80+	Tuesday, May 23, 2022	8 a.m.
60-79	Tuesday, May 23, 2022	Noon
40-59	Wednesday, May 24, 2023	8 a.m.
30-39	Wednesday, May 24, 2023	Noon
20-29	Thursday, May 25, 2023	8 a.m.
6-19	Thursday, May 25, 2023	Noon
1-5	Friday, May 26, 2023	8 a.m.
Open Registration	Friday, May 26, 2023	Noon

NOTE: If you miss your registration window, you are able to register any time after that.

## 2023-24 CHANGES:

- **In-state tuition:** Increased by \$6 resulting in a \$123 per credit rate
- **Out-of-state tuition:** Increased by \$14 resulting in a \$297 per credit rate
- **General Student and Tech Fee:** Increased by \$2 per credit resulting in a \$13 fee

### Don't forget!

- Visit [www.clackamas.edu/im\\_registered\\_whats\\_next.aspx](http://www.clackamas.edu/im_registered_whats_next.aspx) for **your next steps after registration!**
- Get your **student ID card** at any of our three campuses.
- **Veterans and Military Dependents:** Visit [www.clackamas.edu/Veterans](http://www.clackamas.edu/Veterans) for VA educational benefits information.
- Information about **dates, policies and academic regulations** is available at [www.clackamas.edu](http://www.clackamas.edu) or the Enrollment Services Center at any of our three campuses.



## How much will I owe? Tuition and Fees

Tuition and fee rates are subject to change without prior notice.

TUITION TYPE	RATE	COMMENT
In-state	\$123 per credit	Applies to U.S. citizens or immigrants with a residency status (90 days at that address prior to the start of the term) in Oregon, Idaho, California, Nevada and Washington.
Out-of-state	\$297 per credit	Applies to international students and students residing in states which do not border Oregon.
FEE TYPE	RATE	COMMENT
General Student and Technology Fee	\$13 per credit	Supports many CCC student activities including athletics, child care, instructional technology and student government.
College Services Fee	\$30 per term (non-refundable)	Non-refundable. Applies to credit courses only. The College Services Fee covers the cost of various services including graduation, parking, shuttle, testing and transcripts.
Non-Payment Fee	\$100	Applied after the sixth week of the term if a balance is owed to the college.
Non-Refundable Third-Party Billing Fee	\$15	Assessed on any student account where CCC is billing an outside business/organization for tuition and charges.
Returned Bank Item	\$25 each item	Fee for checks returned for nonsufficient funds.
Course Fees	Varies	Certain classes have special fees in addition to tuition and the general fee. These are listed in the "Course Fee" column in the credit course listing in the Schedule of Classes.

### Credit for prior learning

TYPE	RATE
Challenge Exam	\$50 flat fee plus \$25 per credit
Portfolio	\$50 flat fee plus ½ of the current tuition per credit
Other (Non-Portfolio, Non-Challenge Exam)	\$50 flat fee plus ½ of the current tuition per credit

### How do I pay?

**Pay Now:** Payment is due at the time of registration. You can pay in person with cash or a local, bank-imprinted check, for the amount due. You can make credit card payments in person or online using Visa, MasterCard, Discover or American Express.

**Deferred Payment:** Account balances must be paid by Nov. 3 or you will be charged a non-payment fee of \$100 and a hold will be put on your account that will prevent future registration.

### How do I get a refund?

CCC provides full refunds if you drop your classes on time. We do not provide partial refunds. To receive a full refund YOU must drop your classes:

- During the first two weeks of the class for classes meeting five weeks or more
- During the first week of the class for classes meeting three-four weeks
- Before the class begins for classes meeting two weeks or less



**Want your refund deposited directly into your bank account?** Click on Payment Information in myClackamas then myProfile. Enter your bank account information. This includes financial aid and emergency loan checks. To view the complete refund policy, please go to [www.clackamas.edu](http://www.clackamas.edu).

### Financial Aid: How do I apply?

1. Apply to CCC.
2. Complete your FAFSA or ORSAA application:
  - U.S. Citizens and permanent residents: Apply at [www.fafsa.gov](http://www.fafsa.gov).
  - Undocumented Oregon residents: Complete the ORSAA at [www.oregonstudentaid.gov/fafsa-orsaa](http://www.oregonstudentaid.gov/fafsa-orsaa). The ORSAA is for undocumented Oregon students, including students who have DACA (Deferred Action for Childhood Arrivals) status.
3. Check your email and Self-Service in myClackamas.

### Financial Aid questions?

Email us at [finaid@clackamas.edu](mailto:finaid@clackamas.edu)



### FA Resource Lab Virtual Drop In Hours (Zoom)

MWF 11 a.m.-2 p.m. or by appointment

# REGISTRATION AND IMPORTANT INFORMATION

**Academic Calendar** – Clackamas Community College operates on the quarter system. Each of our terms are eleven weeks in length with many courses being offered in a condensed and/or standard term format. Be sure to check the *Schedule of Classes* for individual class meeting times.

**Corequisite** – A corequisite is a second, related course in which a student must be simultaneously enrolled in addition to the primary course.

**Course Prerequisites** – Some CCC courses have prerequisite requirements. You will be required to meet these prior to enrolling.

**Grades** – Grade options generally include A, B, C, D, F, P/N (Pass, No Pass) or X (Audit). Be sure to select the grade option you want at the time of registration by selecting: Register Pass/Fail for P/N or Audit for all classes you wish to audit.

**Registration and Transcript Holds** – Students who have not met their financial obligations to the college may have restrictions placed on their ability to register for future terms and/or have official transcripts released.

**Ordering Transcripts** – Official transcripts (record of your classes, grades earned and degrees awarded) are available upon request. Unofficial transcripts are available via myClackamas. Order transcripts online via [www.parchment.com](http://www.parchment.com). For more information, call our transcript request line at 503-594-6074.

**Student Rights & Responsibilities** – When you enroll at Clackamas Community College you assume certain rights and responsibilities as a student that relate to your educational record, academic performance and individual conduct. These are stated in the Student Handbook—[www.clackamas.edu/student-rights](http://www.clackamas.edu/student-rights).

**Student Photo ID Cards** – Cards are available at the Enrollment Services Center and are necessary for library checkout, access to computer/tutorial labs and admission to college events. Picture ID and current enrollment are required. There is a \$10 replacement fee for stolen or lost ID cards.



## GRADUATION

### Apply to Graduate

In order to be evaluated for a certificate or degree from CCC, students must fill out a "Graduation Application" and submit it to Graduation Services at the Oregon City campus.

Please refer to graduation information via the web for filing deadlines. Questions regarding this process may be directed to 503-594-6651 or [gradservices@clackamas.edu](mailto:gradservices@clackamas.edu).

### Graduation Ceremonies

The GED/Adult High School Diploma graduation ceremony will take place Thursday, June 14, 2024, and the certificate and degree graduation ceremony will be held Friday evening, June 14, 2024.

Information for both ceremonies will be available at [www.clackamas.edu/graduation](http://www.clackamas.edu/graduation) in early spring. For questions related to the ceremony, contact [GradCeremony@clackamas.edu](mailto:GradCeremony@clackamas.edu).

# SI USTED HABLA ESPAÑOL

## Información en español

Visite el sitio de web [www.clackamas.edu/espanol](http://www.clackamas.edu/espanol) para más información.

¡Bienvenido a Clackamas Community College! Clackamas ofrece una gran variedad de oportunidades para todos. Ofrecemos más de 90 programas de carreras técnicas, programas para estudiantes internacionales, clases de inglés, y oportunidades para recibir su certificado de preparatoria GED.

En Clackamas Community College, creemos que todos tienen derecho a desarrollar todo su potencial. Les damos la bienvenida a todos, sin importar quiénes sean o de dónde son. Sus contribuciones son las que hacen de Clackamas un colegio comunitario. Estamos contentos de que esta aquí.

## Clases de ESOL (Inglés para hablantes de otras lenguas)

- Las clases de ESOL son para todos que desean mejorar sus habilidades de inglés
- Ofrecemos clases de todos niveles
- Los precios varían entre \$30 y \$60 por clase por un trimestre
- Estudiantes deben tener al menos 16 años de edad

Para más información y para registrarse, llame a Nena Monterroza al 503-594-3234

## GED en español

Instrucción del desarrollo de habilidades básicas (GED) ofrecida en español. Se aplica un examen de diagnóstico para determinar las necesidades académicas del alumno.

Inscripciones abiertas todo el tiempo, se ofrece en el colegio principal, Harmony Center y Canby.

Para más información y para registrarse para la clase, llame a Camilo Sanchez al 503-594-3029

## Ayuda Financiera

Ayuda financiera está disponible para ayudarle alcanzar sus metas educativas. La Oficina de Ayuda Financiera y Becas de CCC brinda acceso a becas, trabajo-estudiantil y préstamos para ayudarle cubrir los costos de la escuela.

Para más información, llame al 503-594-6082

## Servicios de Workforce

WorkSource Clackamas ofrece servicios gratuitos que pueden ayudar con:

- Actualizar tus habilidades
- Mejorar tus técnicas en la búsqueda de empleo
- Acceso a empleos en alta demanda y crecimiento

Para más información, llame al 503-594-6246

## Para tomar clases de crédito

Si quiere tomar clases para recibir crédito, un consejero de admisiones le podrá ayudar en tomar los pasos adecuados y necesarios para registrarse en Clackamas Community College.

¡Nuestro Centro de Admisiones está aquí para ayudarle a comenzar! Llame al 503-594-3284



# VETERANS SERVICES

## Veterans Education and Training Center

CCC Oregon City campus, Community Center Room 100  
503-594-3438

[vetinfo@clackamas.edu](mailto:vetinfo@clackamas.edu)

[www.clackamas.edu/veterans](http://www.clackamas.edu/veterans)

The Veteran Education and Training Center is a service of Clackamas Community College dedicated in gratitude to providing hospitality, advocacy, and the highest quality of service to all Veterans. The VET Center's staff goal is to support every Veteran's transition from warrior to student to graduate and finally to working professional. The VET Center will ensure every individual Veteran's unique needs are met. Clackamas Community College recognizes and honors the Military Veterans of our community and their families. Please allow us the honor and privilege to serve you!

The college provides a wide range of services for Veterans which include:

- Information about benefits
- Education and career information
- Assistance with getting started and being successful
- Referrals to additional resources
- Assistance with necessary paperwork
- VA enrollment and progress certification
- Student Veterans Club
- Veterans Events
- Transition Assistance Workshops
- Veterans Book Share
- Veterans Text Book Grants
- Military Families Scholarship Endowment
- VA Work study

The regulations and requirements associated with providing and receiving the variety of veteran benefits are numerous and complex. We can help you understand your benefits and the process of accessing them. Please come see us soon and often to be informed and ensure you remain in compliance.

# WORKFORCE SERVICES

**Skill up for jobs of the future! WorkSource Clackamas is preparing Oregonians for jobs in health care, manufacturing, high tech, green technologies and more!**



## Job Search and Training Help

**Are you looking for a job?**

**Do you need to upgrade your skills to get a better job?**

**Interested in working and learning on the job?**

WorkSource Clackamas has no-cost career advancement services which can:

- Help you update your skills
- Sharpen your job search expertise
- Access jobs in high-growth careers

**Take the next step!** Contact our Career Specialists to learn more about our incredible career workshops and services. Contact us at 503-594-6246 or visit [www.clackamasworkforce.org](http://www.clackamasworkforce.org).

These programs are funded in whole or in part through the U.S. Department of Labor and the State of Oregon through Clackamas Workforce Partnership.

## Consult the experts!

### NO-COST CAREER WORKSHOPS AT WORKSOURCE CLACKAMAS

506 High Street, Oregon City 97045

Our Career Specialists are experts in job search strategies. Join a workshop to practice innovative techniques to find employers, develop a resume, improve networking, interview better and improve your job search.

Visit [www.clackamasworkforce.org](http://www.clackamasworkforce.org) or call to learn more about the NO COST workshops. Call 971-673-6400. Reservations required.

### *Building skills and growing businesses!*

Sponsored by the Clackamas Workforce Partnership  
[www.clackamasworkforce.org](http://www.clackamasworkforce.org).

WorkSource Oregon is an equal opportunity employer/program.  
WorkSource Oregon es un programa/empleador que respeta la igualdad de oportunidades.

# ONLINE LEARNING

In many ways, learning online is similar to learning in a classroom. Your instructor will provide quality readings, exercises, assignments, and quizzes. And just like an in-person class, what you get out of it is a direct result of how much you put into it. So... expect to spend the same amount of time and energy on an online class as you would in an in-person course.

Clackamas Community College (CCC) uses Moodle for its online course delivery. So... you'll see a Moodle 101 orientation course on your Moodle Dashboard when you log in. This self-guided orientation will prepare you for online learning and make sure you have the skills and resources you'll need to succeed in your online course. It also includes student essentials, like tips for successful time management and home workspaces.

## New to Online Learning?

The Online Learning & Educational Technology Team has collected the following resources on our website ([online.clackamas.edu](http://online.clackamas.edu)) to assist you:

- CCC [Schedule of Classes](#)
- [Are you prepared to take an online class?](#) Q&A
- [Recommended technology and software](#)
- [Assistive technology](#)

## Get Started in Online Learning

Before you begin, we recommend that you visit [online.clackamas.edu](http://online.clackamas.edu) to review the answers to these questions:

- [How do I find my course?](#)
- [How can I learn more about Moodle, access my classes, and be prepared for online learning?](#)
- [Where do I find Moodle Help?](#)
- [How do I participate synchronously via a Zoom meeting in my course?](#)

### Still need help?

During regular business hours (9am-3pm, Monday-Thursday), call the [Cougar Connect Information Desk](#) at 503-594-6632 or email [online@clackamas.edu](mailto:online@clackamas.edu).

For after hours, weekend, and/or bilingual support (English/Español), visit [online.clackamas.edu](http://online.clackamas.edu) for more information.

## ONLINE COURSES

Online (ONL) courses do not have specific days or times for participation but some instructors **may schedule optional virtual meetings** and office hours. These courses have been intentionally developed to meet online course design standards. Online courses are identified in the *Schedule of Classes* by the term ONLINE and also by the icon **ONL**.

## REMOTE COURSES

Remote (REM) courses are held online at **specific days and times** and require students to use online tools, such as Zoom, in order to participate. Check the *Schedule of Classes* for the specific meeting days and times. Remote courses are identified in the schedule by the term REMOTE and also by the icon **REM**.

## HYBRID COURSES

Hybrid (HYB) courses are completed both in-person and online. For example, students might attend a weekly lecture on-campus, and then take part in a class discussion online. The amount of time spent on-campus varies between courses. Check the *Schedule of Classes* for specific meeting days and times, as well as campus location information. Hybrid courses are identified in the schedule by the term HYBRID and also the icon **HYB**.

## ALL COURSES

Additionally, you'll want to check the *Schedule of Classes* (or with your instructor) about required software, special course materials, course requirements, or prerequisites.



Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
Instructor	Tuition	Fee	Crs. Fee			

# COURSE LISTING

Credit and non-credit Courses offered Fall 2023

## Adult Basic Education (ABE)

### ABE-012 ADULT BASIC EDUCATION, 0 CREDIT

Instruction offered to improve reading, writing, and math skills in order to transition to college classes, GED preparatory classes, or career related goal. Students must be 16 years or older. Required: Student Petition.

OC LCT	ABE-012-07	325430	MTWTH		10-11:50 AM	
	D. GREEN	\$0.00	\$0.00	\$55.00	\$55.00	

Required: Student Petition.

## Anthropology

### ANT-101 PHYSICAL ANTHROPOLOGY, 4 CREDITS

Introduces the study of humans as biocultural beings in the context of modern genetics, evolutionary theory, primate taxonomy, anatomy and behavior, fossil hominines, and the role of the physical anthropologist in forensic science.

**Recommended Prerequisites:** WRD-090 or placement in WRD-098

OC	ANT-101-01	325431	TTH		1-2:50 PM	
	TBA	\$492.00	\$52.00	\$0.00	\$544.00	

### ANT-102 ARCHAEOLOGY & PREHISTORY, 4 CREDITS

Introduces the methods and theories used by archaeologists to study the development of human cultures. Provides a survey of world prehistory, tracing the transition of human societies from hunting and gathering to farming, to the beginning of urban life and the rise of early civilizations.

**Recommended Prerequisites:** WRD-090 or placement in WRD-098

OC	ANT-102-01	325432	TTH		10-11:50 AM	
	TBA	\$492.00	\$52.00	\$0.00	\$544.00	

### ANT-103 CULTURAL ANTHROPOLOGY, 4 CREDITS

Introduces the diversity of contemporary human cultures and the ways anthropologists study and compare them in an effort to understand how different societies organize their lives and make sense of the world around them. Explores the interrelationships among the various elements of culture.

**Recommended Prerequisites:** WRD-090 or placement in WRD-098

ONL	ANT-103-01	325433				
	TBA	\$492.00	\$52.00	\$0.00	\$544.00	

### ANT-280 ANTHROPOLOGY/CWE, 2-6 CREDITS (VAR)

Cooperative work experience. Provides students with on-the-job work experience in the field of anthropology (may involve physical anthropology, and/or archaeology, and/or cultural anthropology). Variable Credit: 2-6 credits. Required: Student Petition.

**Corequisites:** CWE-281

**Recommended Prerequisites:** WRD-090 or placement in WRD-098

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**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

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Instructor	Tuition	Fee	Crs. Fee			

OC	ANT-280-01	325434				
	TBA	\$738.00	\$78.00	\$45.00	\$861.00V	

Required: Student Petition. Corequisite: Take 1 of the following CWE-281-06.

## Art

### ART-101 ART APPRECIATION, 3 CREDITS

Discover the fundamentals of thinking about and creating art through readings, class discussions, and gallery/museum tours. This course will examine art, architecture and design from the ancient period through the contemporary moment. The course also considers connections and relationships in art-making, history and culture.

ONL LCT	ART-101-01	325535				
	C. SIEGFRIED	\$369.00	\$39.00	\$6.00	\$414.00	

### ART-115 BASIC DESIGN: 2-DIMENSIONAL DESIGN, 4 CREDITS

This course acquaints students with the vocabulary of composition and the elements and principles of design and color theory. Students focus on the development of creative compositions and analytical skills through projects and critiques and examine historical and contemporary issues and ideas related to visual composition.

OC LCT	ART-115-01	325537	MW		1-3:50 PM	
	C. SIEGFRIED	\$492.00	\$52.00	\$80.00	\$624.00	
OC LCT	ART-115-02	325540	TTH		1-3:50 PM	
	R. KALMAN	\$492.00	\$52.00	\$80.00	\$624.00	

### ART-119 TIME-BASED ART, 4 CREDITS

This course introduces students to working with time as a medium, concept, and process. Introduces the strategies, practices, and history of the time-based art including storytelling, performance, body art, animation, video, and sound. Students develop abilities in producing, documenting, and presenting these works.

ONL LCT	ART-119-01	325542				
	K. SIMMONS	\$492.00	\$52.00	\$80.00	\$624.00	

Required: Pick up supplies on campus 9/27, 11:00-12:00pm.

### ART-121 DIGITAL TOOLS, 2 CREDITS

An introductory course exploring digital systems used by artists and designers to create, see, process and communicate in a quickly changing world. Students will use phone and computer technologies to research ideas and create work related to the self, the world, spaces and places. They will also use technology to develop a personal aesthetic and art practice. Digital experience related to art practice and the world around us will be considered. Projects and critiques will introduce students to cultural themes and principles of design.

OC LCT	ART-121-01	325546	TTH		1-2:50 PM	
	D. OLSEN	\$246.00	\$26.00	\$40.00	\$312.00	

### ART-131 INTRODUCTION TO DRAWING, 4 CREDITS

Introduces basic skills, drawing tools, materials, techniques, elements of composition; line, gesture, color and value. Projects will involve observational drawing of figure, still life and landscape images. Assignments include drawing, assigned readings, term papers and group critiques of drawing projects. Historical issues of drawing will be examined.

ONL LCT	ART-131-01	325547				
	A. SCHROER	\$492.00	\$52.00	\$80.00	\$624.00	

Required: Pick up supplies on campus 9/25, 4:00-6:00pm.

Course No	Course Title, Credits	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
Section No	Instructor	Tuition	Fee	Crs. Fee	
ONL LCT	<b>ART-131-02</b> 325548				
	A. SCHROER	\$492.00	\$52.00	\$80.00	\$624.00
	Required: Pick up supplies on campus 9/25, 4:00-6:00pm.				
OC LCT	<b>ART-131-03</b> 325549 MW			9-11:50 AM	
	R. KALMAN	\$492.00	\$52.00	\$80.00	\$624.00
OC LCT	<b>ART-131-04</b> 329257 MW			1-3:50 PM	
	R. KALMAN	\$492.00	\$52.00	\$80.00	\$624.00

**ART-161 PHOTOGRAPHY I, 4 CREDITS**

Introduction to basic camera operation and basic darkroom processes in developing and printing film. Elements of composition, content, and historical reference will be explored.

**Required:** Access to a 35mm black and white camera with adjustable exposure controls (no digital cameras)

OC LCT	<b>ART-161-01</b> 329256 TTH			1-3:50 PM	
	C. GIFFEN	\$492.00	\$52.00	\$150.00	\$694.00

**ART-204 HISTORY OF ART/ANCIENT THROUGH MEDIEVAL, 4 CREDITS**

Examines art, cultures, and history from the Paleolithic era through the early Medieval eras. This is a broad overview of art history that promotes an understanding of art and its history through readings, lectures, papers and exams.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

OC HYB LCT	<b>ART-204-01</b> 325100 W			1-2:20 PM	
	N. BRODNICKI	\$492.00	\$52.00	\$21.00	\$565.00

**ART-205 HISTORY OF ART/ROMANESQUE THROUGH BAROQUE, 4 CREDITS**

Examines art, culture, and history from the Romanesque through the Baroque periods in art. This is a broad overview of art history that promotes an understanding of art and its history through readings, lectures, discussions, papers and exams.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

ONL LCT	<b>ART-205-01</b> 329255				
	J. SIMONE	\$492.00	\$52.00	\$21.00	\$565.00

**ART-225 COMPUTER GRAPHICS I, 4 CREDITS**

Introduction to the use of digital graphics programs. Photo manipulation, illustration, and compositing techniques will be explored. Design principles and creative composition will be emphasized. Historical and contemporary issues related to graphic design aesthetics will be considered.

**Recommended Prerequisites:** ART-115

OC LCT	<b>ART-225-01</b> 325552 MW			9-11:50 AM	
	B. THWING	\$492.00	\$52.00	\$106.00	\$650.00
OC LCT	<b>ART-225-02</b> 325554 MW			1-3:50 PM	
	B. THWING	\$492.00	\$52.00	\$106.00	\$650.00

**ART-250 CERAMICS/BEGINNING, 4 CREDITS**

This course is a broad general introduction to fundamental ceramic skills and clay experience to foster artistic growth. Students explore different methods of working with clay, including pinching, coiling, slab construction, and throwing on the wheel and are introduced to glazing and firing methods. Students research the history of ceramics and its connection to culture and society.

OC LCT	<b>ART-250-01</b> 325555 TTH			9-11:50 AM	
	N. BRODNICKI	\$492.00	\$52.00	\$79.00	\$623.00
OC LCT	<b>ART-250-02</b> 325557 TTH			2-4:50 PM	
	N. WARRENS	\$492.00	\$52.00	\$79.00	\$623.00

**Campus Locations:**

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**Other Coding Translations:**

**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español

**LCT:** Low-Cost Text

Course No	Course Title, Credits	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
Section No	Instructor	Tuition	Fee	Crs. Fee	
OC LCT	<b>ART-250-03</b> 325559 TTH			6-8:50 PM	
	N. WARRENS	\$492.00	\$52.00	\$79.00	\$623.00

**ART-253 CERAMICS/INTERMEDIATE, 4 CREDITS**

In this course, students further develop ceramic skills and clay experience to foster artistic growth. Students explore and develop different methods of working with clay, including pinching, coiling, slab construction, and throwing on the wheel and refine glazing and firing methods. Students research the history of ceramics and its connection to culture and society.

**Prerequisites:** ART-250, ART-251, or ART-252, or Student Petition

OC LCT	<b>ART-253-01</b> 325561 TTH			9-11:50 AM	
	N. BRODNICKI	\$492.00	\$52.00	\$79.00	\$623.00
	Required: Student Petition.				
OC LCT	<b>ART-253-02</b> 325563 TTH			2-4:50 PM	
	N. WARRENS	\$492.00	\$52.00	\$79.00	\$623.00
	Required: Student Petition.				
OC LCT	<b>ART-253-03</b> 325564 TTH			6-8:50 PM	
	N. WARRENS	\$492.00	\$52.00	\$79.00	\$623.00
	Required: Student Petition.				

**ART-257 METALSMITHING/JEWELRY, 4 CREDITS**

This course examines basic techniques in metalsmithing and jewelry-making. Students will learn basic techniques and processes of metalsmithing such as sawing, cold connection, soldering, metal inlay, fabrication, forming, surface treatments and casting. The focus of this class will be placed on creating forms for body adornment. Critiques, discussions and presentations are included in this course.

OC LCT	<b>ART-257-01</b> 325566 TTH			9-11:50 AM	
	J. IJIMA	\$492.00	\$52.00	\$80.00	\$624.00

**ART-262 DIGITAL PHOTOGRAPHY & PHOTO-IMAGING, 4 CREDITS**

Introduces concepts, techniques, practices, aesthetics and ethics of photographic imaging and image-making with digital technology. Students will use imaging software.

**Required:** Access to a digital camera with adjustable exposure controls

OC LCT	<b>ART-262-01</b> 325568 TTH			9-11:50 AM	
	D. OLSEN	\$492.00	\$52.00	\$80.00	\$624.00
ONL LCT	<b>ART-262-02</b> 325570				
	S. ELIOT	\$492.00	\$52.00	\$80.00	\$624.00
	Adobe Photoshop is used.				

**ART-281 PAINTING: STILL LIFE/BEGINNING, 4 CREDITS**

Introduces basic painting tools, materials, techniques, and elements of composition, color, gesture, and value. Projects will involve observational painting with a focus on Still Life and its relationship to volume and form on a two-dimensional plane. Assignments include painting, drawing, assigned readings and group critiques of painting projects.

OC LCT	<b>ART-281-01</b> 325571 TTH			9-11:50 AM	
	D. ANDERSEN	\$492.00	\$52.00	\$95.00	\$639.00

**ART-284 PAINTING: STILL LIFE/INTERMEDIATE, 4 CREDITS**

Utilizes intermediate painting concepts, materials and techniques, with emphasis on composition, color, gesture, and value. Projects will involve observational painting with a focus on Still Life and its relationship to volume and form on a two-dimensional plane. Assignments include paintings, readings, and critique of projects.

**Prerequisites:** ART-283 or Student Petition

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	
OC LCT	<b>ART-284-01</b> 325573 TTH				9-11:50 AM	
	D. ANDERSEN		\$492.00	\$52.00	\$95.00	\$639.00

**ART-291 SCULPTURE, 4 CREDITS**

Introduction to the processes and concepts of sculpture; the elements of form and space will be explored. Clay, plaster, mold making, carving, and assemblage will be introduced. Reference to historical and aesthetic content will be presented.

OC LCT	<b>ART-291-01</b> 325575 MW				1-3:50 PM	
	K. SIMMONS		\$492.00	\$52.00	\$80.00	\$624.00

**Auto Body/Collision Repair and Refinishing**

*Must have ANSI approved eye protection first day and comply with College safety policy.*

**AB-101 AUTO RESTORATION, 3 CREDITS**

Designed for students interested in auto body repair and painting their own vehicles. Includes dent removal, panel replacement, welding and painting. May be repeated for up to 12 credits.

oc	<b>AB-101-01</b> 325464 S				8-7:50 PM	
	A. DANIEK		\$369.00	\$39.00	\$169.00	\$577.00
	Meets: 9/30, 10/14, 10/28, 11/11, & 12/2.					

oc	<b>AB-101-02</b> 325468 S				8-7:50 PM	
	P. NESBITT		\$369.00	\$39.00	\$169.00	\$577.00
	Meets: 10/7, 10/21, 11/4, 11/18 & 12/9.					

**AB-105 STREET ROD CONSTRUCTION TECHNIQUES, 3 CREDITS**

In this course, students will learn panel forming, welding, basic body work and repair of individual projects. Includes shop safety, chemical hazard safety, proper and safe use of tools, basic metal work and finishing, and paint preparation and application.

oc	<b>AB-105-01</b> 325473 THF				6:30 -9:20 PM	
	F. DAVIS		\$369.00	\$39.00	\$169.00	\$577.00

**AB-112 COLLISION REPAIR WELDING I, 2 CREDITS**

This class focuses on auto collision damage repair. Emphasis is on Metal Inert Gas (MIG), Gas Metal Arc Welding (GMAW), welding on light gauge metals, and oxygen-acetylene cutting.

oc	<b>AB-112-01</b> 325474 F				8-12:20 PM	
	C. DAHLSTRUD-RIVERA		\$246.00	\$26.00	\$166.00	\$438.00

**AB-113 COLLISION REPAIR I/NONSTRUCTURAL, 6 CREDITS**

Provides basic instruction in collision repairs, including shop safety and chemical hazard safety; proper and safe use of tools; basic metal work and finishing; use of filler; door removal, replacement and alignment; and replacement and alignment of bolt-on front end sheet metal parts.

**Prerequisite or Corequisite:** AB-112 and ABR-125

oc	<b>AB-113-01</b> 325477 MT				7-12:20 PM	
	M. HOUSE		\$738.00	\$78.00	\$331.00	\$1,147.00
	R. PETERSON					

**AB-123 COLLISION REPAIR WELDING II, 2 CREDITS**

Training in light gauge metal repair: Gas Metal Arc Welding (GMAW), Plasma Arc Cutting (PAC), Squeeze Type Resistance Spot Welding (STRSW), and other advanced welding techniques specific to collision damage repair.

**Prerequisites:** AB-112

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	
oc	<b>AB-123-01</b> 325479 F				8-12:20 PM	
	C. DAHLSTRUD-RIVERA		\$246.00	\$26.00	\$154.00	\$426.00

**AB-133 COLLISION REPAIR II/STRUCTURAL, 6 CREDITS**

Repair major body damage using modern frame repair equipment. Includes repair and replacement of bolt-on, bonded, and welded components using the latest technology. Includes introduction to computerized measuring and damage analysis.

**Prerequisites:** AB-113

oc	<b>AB-133-01</b> 325481 MT				7-12:20 PM	
	M. HOUSE		\$738.00	\$78.00	\$331.00	\$1,147.00
	R. PETERSON					

**AB-149 COLLISION REPAIR ESTIMATING I, 2 CREDITS**

This course provides instruction in procedure and terminology used in the collision repair estimating field. Body part component identification and the effects of a collision on a vehicle will be studied.

oc	<b>AB-149-01</b> 325482 M				1:30 -3:50 PM	
	A. YAGER-ROUNDS		\$246.00	\$26.00	\$116.00	\$388.00

**AB-222 COLLISION REPAIR III/ADVANCED STRUCTURAL, 6 CREDITS**

Major collision repair with a systems approach: frame and structure, panels, suspension and brakes, electrical and cooling systems. Emphasis on frame and unibody repair, replacement of welded body panels, and diagnosis and repair of related damage.

**Prerequisites:** AB-133

oc	<b>AB-222-01</b> 325483 MT				7-12:20 PM	
	M. HOUSE		\$738.00	\$78.00	\$331.00	\$1,147.00
	R. PETERSON					

**AB-224 COLLISION REPAIR IV/ADVANCED STRUCTURAL, 6 CREDITS**

Advanced frame and Unibody repair procedures. Electronic measurement and dimensioning, repair documentation, brakes, suspension, and alignment as they relate to collision repair.

**Prerequisites:** AB-222

oc	<b>AB-224-01</b> 325484 MT				7-12:20 PM	
	M. HOUSE		\$738.00	\$78.00	\$331.00	\$1,147.00
	R. PETERSON					

**AB-226 COLLISION REPAIR V/ADVANCED STRUCTURAL, 6 CREDITS**

Uses the latest high quality, productive techniques and equipment to repair vehicles to pre-collision condition. Covers the refined collision repair processes for today's workplace.

**Prerequisites:** AB-224

oc	<b>AB-226-01</b> 325486 MT				7-12:20 PM	
	M. HOUSE		\$738.00	\$78.00	\$331.00	\$1,147.00
	R. PETERSON					

**AB-235 COLLISION REPAIR WELDING III, 2 CREDITS**

Aluminum welding for collision damage repair. Gas Metal Arc Welding (GMAW) and Gas Tungsten Arc Welding (GTAW) processes are learned, along with related weld techniques and equipment/safety procedures.

**Prerequisites:** AB-123

oc	<b>AB-235-01</b> 325488 F				8-12:20 PM	
	C. DAHLSTRUD-RIVERA		\$246.00	\$26.00	\$166.00	\$438.00

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Course No	Course Title, Credits					Course No	Course Title, Credits				
	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total		Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee		Instructor		Tuition	Fee	Crs. Fee

**AB-280 COLLISION REPAIR/CWE, 2-6 CREDITS (VAR)**  
 Cooperative work experience. Work-based learning experience in an auto body repair shop. Variable Credit: 2-6 credits. Required: Student Petition.  
**Corequisites:** CWE-281

oc	<b>AB-280-01</b>	<b>325489</b>									
	M. HOUSE		\$738.00	\$78.00	\$45.00	\$861.00V					
	Required: Student Petition. Corequisite: Take 1 of the following CWE-281-06.										

**ABR-125 COLLISION REPAIR/REFINISHING I, 6 CREDITS**  
 Covers shop safety, fire prevention, selection and use of paint products, abrasives, fillers, basic application of primers, sealers, and top coats.  
**Prerequisite or Corequisite:** AB-112 and AB-113

oc	<b>ABR-125-01</b>	<b>325492</b>	<b>WTH</b>		<b>7-12:20 PM</b>						
	M. HOUSE			\$738.00	\$78.00	\$331.00	\$1,147.00				
	R. PETERSON										

**ABR-127 COLLISION REPAIR/REFINISHING II, 6 CREDITS**  
 Application of solvent and waterborne finishes, including spot repairs, color matching, complete refinishing, and problem solving. Introduction to computerized color information retrieval and mixing.  
**Prerequisites:** ABR-125

oc	<b>ABR-127-01</b>	<b>325494</b>	<b>WTH</b>		<b>7-12:20 PM</b>						
	M. HOUSE			\$738.00	\$78.00	\$331.00	\$1,147.00				
	R. PETERSON										

**ABR-129 COLLISION REPAIR/REFINISHING III, 6 CREDITS**  
 Application of solvent and waterborne basecoats and tri-coats and urethane topcoats, using both foreign and domestic refinish systems. Includes complete refinishing, spot and panel painting, color matching and problem solving.  
**Prerequisites:** ABR-127

oc	<b>ABR-129-01</b>	<b>325497</b>	<b>WTH</b>		<b>7-12:20 PM</b>						
	M. HOUSE			\$738.00	\$78.00	\$331.00	\$1,147.00				
	R. PETERSON										

**ABR-225 PRODUCTION SHOP TECHNIQUES, 6 CREDITS**  
 Designed for students who wish to gain additional hands-on experience in refinishing, using the most up-to-date methods and materials.  
**Prerequisites:** ABR-129

oc	<b>ABR-225-01</b>	<b>325498</b>	<b>WTH</b>		<b>7-12:20 PM</b>						
	M. HOUSE			\$738.00	\$78.00	\$331.00	\$1,147.00				
	R. PETERSON										

**ABR-227 RESTORATION PRACTICES, 6 CREDITS**  
 Designed for students who wish to broaden their skills base in the upper end refinish market. Projects will be considerably more challenging, with standards and expectations set higher.  
**Prerequisites:** ABR-225

oc	<b>ABR-227-01</b>	<b>325499</b>	<b>WTH</b>		<b>7-12:20 PM</b>						
	M. HOUSE			\$738.00	\$78.00	\$331.00	\$1,147.00				
	R. PETERSON										

**Automotive Service Technology**

*Must have ANSI approved eye protection first day and comply with College safety policy.*

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**AM-100 AUTOMOTIVE FUNDAMENTALS, 3 CREDITS**  
 An introductory automotive service class intended to provide fundamental knowledge and basic experience about automobiles. Covers automotive systems, preventive maintenance and performing basic repairs. Also provides skill and knowledge for purchasing cars, choosing quality mechanics, and making good economic decisions about repairs and costs. Intended generally to enhance the overall satisfaction of being an automotive consumer and car owner.

oc	<b>AM-100-01</b>	<b>329401</b>	<b>MTWTH</b>		<b>7:30 -9:10 AM</b>						
	L. BLAHUTA			\$369.00	\$39.00	\$81.00	\$489.00				

**AM-101 INTRO TO AUTOMOTIVE SERVICE TECHNOLOGY, 2 CREDITS**  
 Introduction to Automotive Service Technology is a course that will prepare students for success in the Automotive Service Technology Program. Shop orientation and automotive industry safety training will be provided. Students can earn industry-recognized certificates. Students will be exposed to industry-recognized online service information. Students will also be introduced to tasks that align with the Auto Service Excellence Education Foundation (ASEEF) Master Automotive Service Technician (MAST) program accreditation.

**Corequisites:** AM-129, AM-130, AM-131, AM-133, AM-135, or AM-142  
**Prerequisites:** MTH-020 or placement in MTH-050, and WRD-080 or placement in WRD-090

oc	<b>AM-101-01</b>	<b>325501</b>	<b>MTWTHF</b>		<b>1-5:50 PM</b>						
	N. ROBERTS			\$246.00	\$26.00	\$5.00	\$277.00				
	Meets: 9/25-9/29.										

**AM-106 FIX YOUR OWN CAR, 2 CREDITS**  
 A do-it-yourself course for students who want to work on their own cars. Includes: oil change, lubrication, fluid checks, brakes, cooling system, electrical system, safety, and other quick services. May be repeated for up to 12 credits.

oc	<b>AM-106-02</b>	<b>325511</b>	<b>S</b>		<b>8-4:20 PM</b>						
	L. BLAHUTA			\$246.00	\$26.00	\$61.00	\$333.00				
	Meets: 10/7, 10/21, 11/4, 11/18 & 12/9.										

**AM-118 SMALL ENGINE REPAIR, 3 CREDITS**  
 This course is designed to provide an overview of basic small engine maintenance, operation and repair. It covers safety, small engine theory, electrical systems, and troubleshooting. Classroom instruction covering theory of operation, 2 cycle and 4 cycle designs and applications, combined with hands-on live projects provides the student the opportunity to learn basic principles of small engine operation, including outdoor equipment, motorcycles, and A.T.V.'s.

oc	<b>AM-118-01</b>	<b>325512</b>	<b>THF</b>		<b>6-9:20 PM</b>						
	L. BLAHUTA			\$369.00	\$39.00	\$117.00	\$525.00				
oc	<b>AM-118-02</b>	<b>325515</b>	<b>MTWTH</b>		<b>1:15 -3:00 PM</b>						
	L. BLAHUTA			\$369.00	\$39.00	\$117.00	\$525.00				

**AM-129 ELECTRICAL SYSTEMS I, 5 CREDITS**  
 This course is designed to provide students with the entry-level skills necessary to repair automobile electrical systems. Students will learn about general electrical systems diagnosis; servicing and repair of batteries, starting systems, and charging systems.  
**Prerequisites:** MTH-020 or placement in MTH-050, and WRD-080 or placement in WRD-090

oc	<b>AM-129-01</b>	<b>325519</b>	<b>MTWTH</b>		<b>1-5:50 PM</b>						
	J. LEUCK			\$615.00	\$65.00	\$204.00	\$884.00				
	Meets: 10/2-11/2.										

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
oc	<b>AM-129-02</b> 325520 MTWTH J. LEUCK Meets: 11/6-12/7.				1-5:50 PM	\$615.00	\$65.00	\$204.00	\$884.00

**AM-130 BRAKE SYSTEMS, 5 CREDITS**  
In this theory and lab course students will learn about the construction and operation of basic hydraulics, brake fluids, friction materials, seals, disc and drum brakes, hydraulic and vacuum brake boosters systems. Students will also learn to service and repair automotive brake systems.  
**Prerequisites:** MTH-020 or placement in MTH-050, and WRD-080 or placement in WRD-090

oc	<b>AM-130-01</b> 325521 MTWTH W. VAN RIPER Meets: 10/2-11/2.				1-5:50 PM	\$615.00	\$65.00	\$204.00	\$884.00
oc	<b>AM-130-02</b> 325524 MTWTH W. VAN RIPER Meets: 11/6-12/7.				1-5:50 PM	\$615.00	\$65.00	\$204.00	\$884.00

**AM-199 EXPERIMENTAL COURSES - AUTOMOTIVE TECHNOLOGY**  
Selected courses of study offered on an experimental or temporary basis. See section(s) for detailed information.

oc	<b>REMOTE CONTROL CAR FUNDAMENTAL, 4 CREDITS</b> <b>AM-199-01</b> 329402 MTWTH L. BLAHUTA This course is intended to provide an exploration into mechanical and electrical systems found on 1/10 scale electrically propelled trucks. Students will have classroom instruction to cover operation of; suspension systems, drive train systems, gear reductions, battery construction, battery maintenance and charging, Electric motor operation, maintenance and repair. Students will assemble a remote-controlled model vehicle throughout the term with the opportunity to test and operate on a controlled course with the successful complication of the class assignments.				3:30 -5:20 PM	\$492.00	\$52.00	\$80.00	\$624.00
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**AM-201 AUTOMOTIVE INTERNSHIP, 3 CREDITS**  
Students will be completing a portfolio project to present to companies in the automotive industry. Students will learn best practices for interview preparedness and resume development. There will be a scheduled interview day with partners in industry to help place students in the workforce for internship. Students will prepare for Auto Service Excellence (ASE) certification tests.  
**Prerequisites:** AM-101

oc	<b>AM-201-01</b> 325525 F N. ROBERTS 'Meets: 9/29-11/3.				7-12:20 PM	\$369.00	\$39.00	\$5.00	\$413.00
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**AM-224 COMFORT SYSTEMS, 5 CREDITS**  
In this course, students will learn design, construction, testing, maintenance, and repair of automotive heating and air conditioning systems. Prepares a student to take the Section 609 Environmental Protection Agency certification test.  
**Prerequisites:** AM-129

oc	<b>AM-224-01</b> 325526 MTWTH R. LOCKWOOD Meets: 9/25-10/26.				7-11:50 AM	\$615.00	\$65.00	\$130.00	\$810.00
oc	<b>AM-224-02</b> 325528 MTWTH R. LOCKWOOD Meets: 10/30-12/2.				7-11:50 AM	\$615.00	\$65.00	\$130.00	\$810.00

**Campus Locations:**  
**HAR:** Harmony Community Campus  
**OC:** Oregon City Campus  
**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

**Distance Education Notification:**  
**ONL:** Online Only  
**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
<b>AM-229</b>	<b>ELECTRICAL SYSTEMS II, 5 CREDITS</b> In this course students will learn fundamentals of electronics, diagnosis, and repair of general electrical including, lighting systems, instrument cluster and driver information systems, and body electrical systems. <b>Prerequisites:</b> AM-129								

oc	<b>AM-229-01</b> 325529 MTWTH N. ROBERTS Meets: 9/25-10/26.				7-11:50 AM	\$615.00	\$65.00	\$204.00	\$884.00
oc	<b>AM-229-02</b> 325531 MTWTH N. ROBERTS Meets: 10/30-12/2.				7-11:50 AM	\$615.00	\$65.00	\$204.00	\$884.00

**AM-280 AUTO MECHANICS/CWE, 1-6 CREDITS (VAR)**  
Cooperative work experience. Work-related learning experience in an auto repair shop or auto dealership. Variable Credit: 1-6 credits. Required: Student Petition.  
**Corequisites:** CWE-281

oc	<b>AM-280-01</b> 325532 J. LEUCK R. LOCKWOOD N. ROBERTS Required: Student Petition. Corequisite: Take 1 of the following CWE-281-06.					\$738.00	\$78.00	\$45.00	\$861.00V
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**Biology**  
**BI-101 GENERAL BIOLOGY; CELLULAR BIOLOGY, 4 CREDITS**  
An inquiry-based laboratory course focusing on cellular biology, genetics, epigenetics, biotechnology and natural selection. Class uses student centered activities in a collaborative learning environment to enhance appreciation of the biological world.  
**Corequisites:** BI-101L  
**Recommended Prerequisites:** MTH-060 or MTH-098 or placement in MTH-065; and WRD-098 or placement in WR-121Z

oc	<b>BI-101-01</b> 325579 MW N. SEFCIKOVA Corequisite: Take 1 of the following BI-101L-01, BI-101L-02, BI-101L-03.				1-2:20 PM	\$492.00	\$52.00	\$55.00	\$599.00
oc	<b>BI-101-02</b> 325581 TTH TBA Corequisite: Take 1 of the following BI-101L-01, BI-101L-02, BI-101L-03.				9-10:20 AM	\$492.00	\$52.00	\$55.00	\$599.00
oc	<b>BI-101-20</b> 325582 MW K. OSTLUND Corequisite: Take the following BI-101L-20.				6-7:20 PM	\$492.00	\$52.00	\$55.00	\$599.00
ONL	<b>BI-101-40</b> 325584 A. KAPILA Corequisite: Take the following BI-101L-40.					\$492.00	\$52.00	\$55.00	\$599.00
ONL	<b>BI-101-41</b> 325585 M. ANDURI- FLYNN Corequisite: Take the following BI-101L-41.					\$492.00	\$52.00	\$55.00	\$599.00

**BI-101L GENERAL BIOLOGY; CELLULAR BIOLOGY LAB, 0 CREDIT**  
Lab course for BI-101  
**Corequisites:** BI-101

oc	<b>BI-101L-01</b> 325586 MW N. SEFCIKOVA Corequisite: Take 1 of the following BI-101-01, BI-101-02.				2:30 -3:50 PM	\$0.00	\$0.00	\$0.00	\$0.00
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**Other Coding Translations:**  
**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total	Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee			Instructor		Tuition	Fee	Crs. Fee	
OC	<b>BI-101L-02</b> 325588 TTH TBA Corequisite: Take 1 of the following BI-101-01, BI-101-02.		\$0.00	\$0.00	\$0.00	\$0.00	<b>BI-112</b>	<b>GENERAL BIOLOGY FOR HEALTH SCIENCES, 4 CREDITS</b>					
OC	<b>BI-101L-03</b> 325590 TTH TBA Corequisite: Take 1 of the following BI-101-01, BI-101-02.		\$0.00	\$0.00	\$0.00	\$0.00		A one-term preparatory course that introduces the Health Occupations student to the scientific method, molecular and cellular biology, principles of inheritance, homeostasis, natural selection, tissues, and organ systems. Topics and skills covered prepare students to enter BI-231 and BI-234.					
OC	<b>BI-101L-20</b> 325592 MW K. OSTLUND Corequisite: Take the following BI-101-20.		\$0.00	\$0.00	\$0.00	\$0.00		<b>Corequisites:</b> BI-112L <b>Recommended Corequisite:</b> CH-112 <b>Recommended Prerequisites:</b> MTH-060 or MTH-098 or placement in MTH-065, and WRD-098 or placement in WR-121Z					
ONL LCT	<b>BI-101L-40</b> 325595 A. KAPILA Corequisite: Take the following BI-101-40.		\$0.00	\$0.00	\$0.00	\$0.00	OC	<b>BI-112-01</b> 325603 TTH J. BOWN Corequisite: Take 1 of the following BI-112L-01, BI-112L-02.		\$492.00	\$52.00	\$55.00	\$599.00
ONL LCT	<b>BI-101L-41</b> 325597 M. ANDURI- FLYNN Corequisite: Take the following BI-101-41.		\$0.00	\$0.00	\$0.00	\$0.00	HAR	<b>BI-112-30</b> 325604 MW P. JONES Corequisite: Take the following BI-112L-30.		\$492.00	\$52.00	\$55.00	\$599.00
<b>BI-102</b>	<b>GENERAL BIOLOGY; ANIMAL SYSTEMS, 4 CREDITS</b>						ONL	<b>BI-112-40</b> 325606 S. KELSEY Corequisite: Take the following BI-112L-40.		\$492.00	\$52.00	\$55.00	\$599.00
	An inquiry-based laboratory course focusing on human and animal body systems; including teratogens, Hox genes and hormone mimics in embryonic development. Activities emphasize comparisons across animal phyla to better understand the diversity of life. The class uses student centered activities in a collaborative learning environment to enhance appreciation of the animal kingdom.						<b>BI-112L</b>	<b>GENERAL BIOLOGY FOR HEALTH SCIENCES LAB, 0 CREDIT</b>					
	<b>Corequisites:</b> BI-102L <b>Recommended Prerequisites:</b> MTH-060 or MTH-098 or placement in MTH-065; and WRD-098 or placement in WR-121Z							Lab course for BI-112 <b>Corequisites:</b> BI-112					
ONL	<b>BI-102-40</b> 325598 M. PLUMMER Corequisite: Take the following BI-102L-40.		\$492.00	\$52.00	\$55.00	\$599.00	OC	<b>BI-112L-01</b> 325608 T J. BOWN Corequisite: Take the following BI-112-01.		\$0.00	\$0.00	\$0.00	\$0.00
<b>BI-102L</b>	<b>GENERAL BIOLOGY; ANIMAL SYSTEMS LAB, 0 CREDIT</b>						OC	<b>BI-112L-02</b> 325615 TH J. BOWN Corequisite: Take the following BI-112-01.		\$0.00	\$0.00	\$0.00	\$0.00
	Lab course for BI-102 <b>Corequisites:</b> BI-102						HAR	<b>BI-112L-30</b> 325619 MW P. JONES Corequisite: Take the following BI-112-30.		\$0.00	\$0.00	\$0.00	\$0.00
ONL	<b>BI-102L-40</b> 325600 M. PLUMMER Corequisite: Take the following BI-102-40.		\$0.00	\$0.00	\$0.00	\$0.00	ONL	<b>BI-112L-40</b> 325624 S. KELSEY Corequisite: Take the following BI-112-40.		\$0.00	\$0.00	\$0.00	\$0.00
<b>BI-103</b>	<b>GENERAL BIOLOGY; PLANTS &amp; THE ECOSYSTEM, 4 CREDITS</b>						<b>BI-120</b>	<b>INTRODUCTION TO HUMAN ANATOMY AND PHYSIOLOGY, 4 CREDITS</b>					
	An inquiry-based laboratory course focusing on plants and the ecosystem; including plant identification, population dynamics, productivity and energy flow. Activities include an integrated approach to understanding environmental issues and the impact of humans on the biosphere. The class uses student centered activities in a collaborative learning environment to enhance appreciation of the biological world.							This laboratory course is designed to serve the students in the Career Technical Programs: Medical Assistant and Clinical Laboratory Assistant students as part of their core curriculum. Material covered includes the structure and function of the human body. Basic chemistry and cell structures are covered, as well as the organization of tissues, organs, and organ systems. Correlations can then be made between this material and disease states commonly encountered in the practice of these fields. Animal organ dissection is required.					
	<b>Corequisites:</b> BI-103L <b>Recommended Prerequisites:</b> MTH-060 or MTH-098 or placement in MTH-065; and WRD-098 or placement in WR-121Z							<b>Corequisites:</b> BI-120L					
ONL	<b>BI-103-40</b> 325601 K. OSTLUND Corequisite: Take the following BI-103L-40.		\$492.00	\$52.00	\$55.00	\$599.00	HAR	<b>BI-120-30</b> 325625 MW P. JONES This class is intended as a pre-requisite for the Medical Assistant and Medical Coding and Billing Programs. Corequisite: Take the following BI-120L-30.		\$492.00	\$52.00	\$55.00	\$599.00
<b>BI-103L</b>	<b>GENERAL BIOLOGY; PLANTS &amp; THE ECOSYSTEM LAB, 0 CREDIT</b>						<b>BI-120L</b>	<b>INTRODUCTION TO HUMAN ANATOMY AND PHYSIOLOGY LAB, 0 CREDIT</b>					
	Lab course for BI-103 <b>Corequisites:</b> BI-103							Lab course for BI-120 <b>Corequisites:</b> BI-120					
ONL	<b>BI-103L-40</b> 325602 K. OSTLUND Corequisite: Take the following BI-103-40.		\$0.00	\$0.00	\$0.00	\$0.00							

**Campus Locations:**  
**HAR:** Harmony Community Campus  
**OC:** Oregon City Campus  
**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

**Distance Education Notification:**  
**ONL:** Online Only  
**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

**Other Coding Translations:**  
**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text



Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

**HAR BI-120L-30 325628 MW 2:30 -3:50 PM**  
 P. JONES \$0.00 \$0.00 \$0.00 \$0.00  
 Corequisite: Take the following BI-120-30.

**BI-165C NATURAL HISTORY OF THE OREGON COAST, 3 CREDITS**

Explores the natural processes that form our Northwest coastal environment: geologic development, shoreline processes, oceanography, and environmental hazards. Topics include the ecology of marine mammals, fish, birds, estuaries, tide pools, sand dunes, and coastal forests.

oc	<b>BI-165C-20 325631 T 6-8:50 PM</b>	J. BOWN	\$369.00	\$39.00	\$20.00	\$428.00
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**BI-165CL NATURAL HISTORY OF THE OREGON COAST WITH LAB, 4 CREDITS**

Explores the natural processes that form our Northwest coastal environment: geologic development, shoreline processes, oceanography, and environmental hazards. Topics include the ecology of marine mammals and birds, estuaries, tide pools, sand dunes and coastal forests. Lab included with field trips and lab activities.

oc	<b>BI-165CL-20 325638 T 6-8:50 PM</b>	J. BOWN	\$492.00	\$52.00	\$60.00	\$604.00
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Field trips to the Oregon coast required. Dates to be determined.

**BI-211 GENERAL BIOLOGY FOR SCIENCE MAJORS (CELLULAR BIOLOGY), 5 CREDITS**

The first term of a three-term laboratory course sequence for science majors and pre-professional students. The course emphasizes cellular biology; including the process of science, cell structure, organization and function, cellular communication, biochemical processes, DNA cell cycle, protein synthesis, biotechnology, genetics, evolution, and an introduction to tissues, organs and organ systems.

**Corequisites:** BI-211L

**Prerequisite or Corequisite:** CH-104 or CH-221

**Prerequisites:** MTH-111Z or placement in MTH-112Z

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

oc	<b>BI-211-01 325648 MW 8-9:50 AM</b>	T. BLACKWELL	\$615.00	\$65.00	\$55.00	\$735.00
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Corequisite: Take 1 of the following BI-211L-01, BI-211L-02.

ONL	<b>BI-211-02 325651</b>	T. BLACKWELL	\$615.00	\$65.00	\$55.00	\$735.00
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This class has an in-person lab requirement. Corequisite: Take 1 of the following BI-211L-01, BI-211L-02.

**BI-211L GENERAL BIOLOGY FOR SCIENCE MAJORS (CELLULAR BIOLOGY) LAB, 0 CREDIT**

Lab course for BI-211

**Corequisites:** BI-211

oc	<b>BI-211L-01 325652 TH 8-10:50 AM</b>	T. BLACKWELL	\$0.00	\$0.00	\$0.00	\$0.00
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Corequisite: Take 1 of the following BI-211-01, BI-211-02.

oc	<b>BI-211L-02 325653 TH 1-3:50 PM</b>	T. BLACKWELL	\$0.00	\$0.00	\$0.00	\$0.00
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Corequisite: Take 1 of the following BI-211-01, BI-211-02.

**BI-231 HUMAN ANATOMY & PHYSIOLOGY I, 4 CREDITS**

**Campus Locations:**  
**HAR:** Harmony Community Campus  
**OC:** Oregon City Campus  
**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

**Distance Education Notification:**  
**ONL:** Online Only  
**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

A lab course designed for students entering the physical education or medically-related fields. Includes body organization, terminology, tissues and systemic study of the integumentary, skeletal and nervous systems. Animal organ dissection required.

**Prerequisites:** BI-112 (preferred), or BI-101 and BI-102, or BI-211. CH-112 (preferred), or CH-104 and CH-105, or CH-221 and CH-222

**Corequisites:** BI-231L

OC HYB	<b>BI-231-01 325654 M 10-11:50 AM</b>	M. PATTERSON	\$492.00	\$52.00	\$55.00	\$599.00
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Corequisite: Take 1 of the following BI-231L-01, BI-231L-02, BI-231L-03.

OC HYB	<b>BI-231-02 325662 T 1-2:50 PM</b>	B. KOP	\$492.00	\$52.00	\$55.00	\$599.00
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This section has in-person lecture and lab requirements and online lecture assignments. Corequisite: Take 1 of the following BI-231L-01, BI-231L-02, BI-231L-03.

OC HYB	<b>BI-231-20 325665 M 6:30 -9:00 PM</b>	B. KOP	\$492.00	\$52.00	\$55.00	\$599.00
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Corequisite: Take the following BI-231L-20.

HAR	<b>BI-231-30 325666 TTH 9-10:20 AM</b>	M. PATTERSON	\$492.00	\$52.00	\$55.00	\$599.00
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Corequisite: Take the following BI-231L-30.

**BI-231L HUMAN ANATOMY & PHYSIOLOGY I LAB, 0 CREDIT**

Lab course for BI-231

**Corequisites:** BI-231

oc	<b>BI-231L-01 325667 M 1-3:50 PM</b>	M. PATTERSON	\$0.00	\$0.00	\$0.00	\$0.00
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Corequisite: Take 1 of the following BI-231-01, BI-231-02.

oc	<b>BI-231L-02 325670 T 3:30 -6:20 PM</b>	J. GALLEGOS	\$0.00	\$0.00	\$0.00	\$0.00
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Corequisite: Take 1 of the following BI-231-01, BI-231-02.

oc	<b>BI-231L-03 325671 W 9-11:50 AM</b>	M. PATTERSON	\$0.00	\$0.00	\$0.00	\$0.00
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Corequisite: Take 1 of the following BI-231-01, BI-231-02.

oc	<b>BI-231L-20 325672 W 6:30 -9:20 PM</b>	J. GALLEGOS	\$0.00	\$0.00	\$0.00	\$0.00
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Corequisite: Take the following BI-231-20.

HAR	<b>BI-231L-30 325674 TTH 10:30 -11:50 AM</b>	M. PATTERSON	\$0.00	\$0.00	\$0.00	\$0.00
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Corequisite: Take the following BI-231-30.

**BI-232 HUMAN ANATOMY & PHYSIOLOGY II, 4 CREDITS**

Lab course covering structure and function of the muscular, cardiovascular, lymphatic, and respiratory systems. Animal organ dissection required.

**Prerequisites:** BI-231 with a C or better

**Corequisites:** BI-232L

OC HYB	<b>BI-232-01 325675 T 9-10:50 AM</b>	B. KOP	\$492.00	\$52.00	\$55.00	\$599.00
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This section has in-person lecture and lab requirements and online lecture assignments. Corequisite: Take the following BI-232L-01.

**BI-232L HUMAN ANATOMY & PHYSIOLOGY II LAB, 0 CREDIT**

Lab course for BI-232

**Corequisites:** BI-232

oc	<b>BI-232L-01 325678 T 11:30 -2:20 PM</b>	J. GALLEGOS	\$0.00	\$0.00	\$0.00	\$0.00
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Corequisite: Take the following BI-232-01.

**Other Coding Translations:**  
**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total
Instructor	Tuition	Fee	Crs. Fee			

**BI-233 HUMAN ANATOMY & PHYSIOLOGY III, 4 CREDITS**  
 Lab course covering neuroendocrine control, digestive, excretory and reproductive systems. Study of fluid, electrolyte and acid-base balance. Animal organ dissection required.

**Prerequisites:** BI-232 with a C or better

**Corequisites:** BI-233L

OC HYB	<b>BI-233-01</b>	<b>325681 M</b>			<b>1-2:50 PM</b>	
	B. KOP	\$492.00	\$52.00	\$55.00		\$599.00

This section has in-person lecture and lab requirements and online lecture assignments. Corequisite: Take the following BI-233L-01.

**BI-233L HUMAN ANATOMY & PHYSIOLOGY III LAB, 0 CREDIT**

Lab course for BI-233

**Corequisites:** BI-233

OC	<b>BI-233L-01</b>	<b>325685 M</b>			<b>4-6:50 PM</b>	
	M. PATTERSON	\$0.00	\$0.00	\$0.00		\$0.00

Corequisite: Take the following BI-233-01.

**BI-234 INTRODUCTORY MICROBIOLOGY, 4 CREDITS**

An introductory microbiology lab course required for health science and science majors. Includes characteristics, physiology and growth requirements of microorganisms, interactions between humans and microorganisms, immunology, infection, and principles of microbial control. This course emphasizes critical thinking and analytical skills in a collaborative laboratory environment.

**Prerequisites:** BI-101, BI-112 or BI-211; and CH-104, CH-112 or CH-221

**Corequisites:** BI-234L

OC LCT	<b>BI-234-01</b>	<b>325688 TTH</b>			<b>1-2:20 PM</b>	
	S. SOLL	\$492.00	\$52.00	\$55.00		\$599.00

Corequisite: Take the following BI-234L-01.

OC LCT	<b>BI-234-20</b>	<b>325689 MW</b>			<b>6-7:20 PM</b>	
	N. SEFCIKOVA	\$492.00	\$52.00	\$55.00		\$599.00

This section has an in-person lab requirement. Corequisite: Take the following BI-234L-20.

ONL LCT	<b>BI-234-40</b>	<b>325690</b>				
	S. SOLL	\$492.00	\$52.00	\$170.00		\$714.00

Corequisite: Take the following BI-234L-40.

**BI-234L INTRODUCTORY MICROBIOLOGY LAB, 0 CREDIT**

Lab course for BI-234

**Corequisites:** BI-234

OC	<b>BI-234L-01</b>	<b>325692 TTH</b>			<b>2:30 -3:50 PM</b>	
	S. SOLL	\$0.00	\$0.00	\$0.00		\$0.00

Corequisite: Take the following BI-234-01.

OC	<b>BI-234L-20</b>	<b>325693 MW</b>			<b>7:30 -8:50 PM</b>	
	N. SEFCIKOVA	\$0.00	\$0.00	\$0.00		\$0.00

Corequisite: Take the following BI-234-20.

ONL	<b>BI-234L-40</b>	<b>325694</b>				
	TBA	\$0.00	\$0.00	\$0.00		\$0.00

Corequisite: Take the following BI-234-40.

**Business Administration**

**BA-101 INTRODUCTION TO BUSINESS, 4 CREDITS**

**Campus Locations:**  
**HAR:** Harmony Community Campus  
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**Distance Education Notification:**  
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**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

**Other Coding Translations:**  
**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total
Instructor	Tuition	Fee	Crs. Fee			

Introduces the American business system in a changing global environment. Disciplines covered include economics, entrepreneurship, formation, accounting, finance, marketing, and management. In addition, students are introduced to current opportunities in seeking an AAS degree and/or current certificate offerings within the CCC Business Department.

**Recommended Prerequisites:** WRD-090 or placement in WRD-098

OC	<b>BA-101-01</b>	<b>325599 TTH</b>			<b>8-9:50 AM</b>	
	J. EICHENBERGER	\$492.00	\$52.00	\$5.00		\$549.00

OC HYB	<b>BA-101-02</b>	<b>325607 T</b>			<b>10-11:50 AM</b>	
	J. EICHENBERGER	\$492.00	\$52.00	\$5.00		\$549.00

Additional work assigned and completed in Moodle.

OC HYB	<b>BA-101-03</b>	<b>325610 TH</b>			<b>10-11:50 AM</b>	
	J. EICHENBERGER	\$492.00	\$52.00	\$5.00		\$549.00

Additional work assigned and completed in Moodle.

REM LCT	<b>BA-101-04</b>	<b>325612 W</b>			<b>6-7:50 PM</b>	
	K. HEINIG	\$492.00	\$52.00	\$53.61		\$597.61

Online textbook included in section fees.

ONL	<b>BA-101-05</b>	<b>325614</b>				
	M. MOISO	\$492.00	\$52.00	\$53.61		\$597.61

Online textbook included in section fees.

ONL	<b>BA-101-06</b>	<b>325617</b>				
	S. PARKER	\$492.00	\$52.00	\$5.00		\$549.00

ONL	<b>BA-101-07</b>	<b>325618</b>				
	M. MOISO	\$492.00	\$52.00	\$53.61		\$597.61

Online textbook included in section fees.

ONL	<b>BA-101-08</b>	<b>325621</b>				
	S. PARKER	\$492.00	\$52.00	\$5.00		\$549.00

**BA-104 BUSINESS MATH, 3 CREDITS**

Apply mathematics to a variety of transactions found in the business world, from finance to project management, and from sales to accounting, including: payroll, product or service mark-ups and mark-downs; simple and compound interest; present and future value of a single sum of money and annuities; and financial ratio analysis.

**Prerequisites:** placement in MTH-020 or higher

OC	<b>BA-104-01</b>	<b>325623 W</b>			<b>1-3:50 PM</b>	
	T. FRANK	\$369.00	\$39.00	\$80.79		\$488.79

Online textbook included in section fees.

ONL	<b>BA-104-02</b>	<b>325630</b>				
	J. AMAN	\$369.00	\$39.00	\$80.79		\$488.79

Online textbook included in section fees.

**BA-111 GENERAL ACCOUNTING I, 3 CREDITS**

Introduces the terminology and processes of full-cycle, modified cash and accrual basis bookkeeping for small service and merchandising businesses with inventory. Focus is on how to analyze and record financial transactions, reconcile accounts and trial balances, and prepare basic financial statements. Additional topics include cash management, bank reconciliations, accounting for sales and purchase discounts. Emphasizes procedure and practice.

**Recommended:** Placement in MTH-020

OC	<b>BA-111-01</b>	<b>325632 T</b>			<b>9-11:50 AM</b>	
	J. SAN-CLAIRE	\$369.00	\$39.00	\$109.99		\$517.99

Online textbook included in section fees.

ONL	<b>BA-111-02</b>	<b>325635</b>				
	J. SAN-CLAIRE	\$369.00	\$39.00	\$109.99		\$517.99

Online textbook included in section fees.

**BA-119 PROJECT MANAGEMENT PRACTICES, 2 CREDITS**

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

Basic course in project management, intended for non-project management students. Students gain a basic understanding of project management principles and techniques, with emphasis on scope planning, scheduling, and resource management. Students learn practical application of cost control, time management, and communication in project environments.

ONL LCT	<b>BA-119-01</b>	<b>325641</b>				
	C. PLOWMAN		\$246.00	\$26.00	\$0.00	\$272.00
ONL LCT	<b>BA-119-02</b>	<b>325643</b>				
	C. PLOWMAN		\$246.00	\$26.00	\$0.00	\$272.00

**BA-120 PROJECT MANAGEMENT FUNDAMENTALS, 4 CREDITS**

Foundational course in project management. Students gain an introduction to project management principles and techniques, including identifying project life cycle phases, generating a project charter, learning and applying stakeholder management techniques, generating work/task breakdowns, network diagrams and identifying the critical path. Students will also learn and apply risk management techniques, resource allocation, and project monitoring and controlling methodologies.

**Recommended:** Working knowledge and access to MS Excel and MS Word

ONL	<b>BA-120-01</b>	<b>325645</b>				
	TBA		\$492.00	\$52.00	\$0.00	\$544.00

**BA-125 PROJECT MANAGEMENT PREP, 5 CREDITS**

Tools and processes employed in the project knowledge areas of project communication, risk, procurement, and quality. Major topics include project communication planning and preferred communication channels and approaches; risk assessment and risk management in a project environment; project procurement planning and management with an emphasis on contract types and contract awards and administration; and approaches to project quality planning, quality assurance, control and improvement.

**Prerequisite or Corequisite:** BA-120

ONL	<b>BA-125-01</b>	<b>325649</b>				
	TBA		\$615.00	\$65.00	\$0.00	\$680.00

**BA-128 PROJECT MANAGEMENT: LEADERSHIP STRATEGIES, 4 CREDITS**

This course is an introductory course for students to explore different leadership styles. Through introspective exercises/assignments, students will have opportunities to find their leadership voice. Topics include the comparisons among various leadership versus management paradigms, mediation and negotiation techniques, employee engagement, team building, mentor-ship, tactical planning, creative decision-making, managing crisis conversations, and emotional intelligence.

ONL	<b>BA-128-01</b>	<b>329365</b>				
	TBA		\$492.00	\$52.00	\$0.00	\$544.00

**BA-131 INTRODUCTION TO BUSINESS COMPUTING, 4 CREDITS**

Introductory course using Microsoft Word, Excel, Access, and PowerPoint applications to create business documents.

**Required:** Access to the following equipment and software: Personal computer or laptop with MS Windows operating system (preferably Windows 8 or 10), Microsoft Office Professional, internet access (including email); or access to the CCC Dye Academic Computer Lab for completion of coursework

**Recommended Prerequisites:** WRD-090 or placement in WRD-098

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

OC HYB	<b>BA-131-01</b>	<b>325650 W</b>			<b>10-11:50 AM</b>	
	F. MEYERS		\$492.00	\$52.00	\$127.89	\$671.89
	Office 2021 version is used. Additional work assigned and completed in Moodle. Online textbook included in section fees.					

OC HYB	<b>BA-131-02</b>	<b>325655 W</b>			<b>1-2:50 PM</b>	
	F. MEYERS		\$492.00	\$52.00	\$127.89	\$671.89
	Office 2021 version is used. Additional work assigned and completed in Moodle. Online textbook included in section fees.					

OC HYB	<b>BA-131-03</b>	<b>325656 T</b>			<b>1-2:50 PM</b>	
	M. SORRENTINO		\$492.00	\$52.00	\$127.89	\$671.89
	Office 2021 version is used. Additional work assigned and completed in Moodle. Online textbook included in section fees.					

REM	<b>BA-131-04</b>	<b>325658 M</b>			<b>6-8:20 PM</b>	
	J. AMAN		\$492.00	\$52.00	\$127.89	\$671.89
	Office 2021 version is used. Online textbook included in section fees.					

ONL	<b>BA-131-05</b>	<b>325657</b>				
	D. HEINIG		\$492.00	\$52.00	\$127.89	\$671.89
	Office 2021 version is used. Online textbook included in section fees.					

ONL	<b>BA-131-06</b>	<b>325659</b>				
	B. FORNEY		\$492.00	\$52.00	\$127.89	\$671.89
	Office 2021 version is used. Online textbook included in section fees.					

ONL	<b>BA-131-07</b>	<b>325660</b>				
	P. SESSIONS		\$492.00	\$52.00	\$127.90	\$671.90
	Office 2021 version is used. Online textbook included in section fees.					

**BA-205 BUSINESS COMMUNICATIONS WITH TECHNOLOGY, 4 CREDITS**

Students practice critical skills for successful communication in a business environment by employing a structured writing process, analyzing audience needs, and identifying and using appropriate communication channels and modalities. Students also work individually to produce a PowerPoint presentation with embedded narration and as team members to manage a comprehensive project and complete a business research paper.

**Recommended Prerequisites:** BA-131 and WR-121Z

ONL	<b>BA-205-01</b>	<b>325661</b>				
	M. MOISO		\$492.00	\$52.00	\$49.69	\$593.69
	Online textbook included in section fees.					

**BA-211 FINANCIAL ACCOUNTING, 4 CREDITS**

Student develops skills in the essential principles of accrual-basis financial accounting for service and merchandising companies. Topics cover the recording and reporting of financial transactions according to generally accepted accounting principles through the complete accounting cycle. Included are managing inventory, accounting for receivables, reconciling the cash account, internal controls, long-term assets, current liabilities, stockholders' equity, ratio analysis, ethics, using Excel, and financial statement reporting. Emphasis is on procedure and process.

**Prerequisites:** BA-101 and BA-131

**Recommended Prerequisites:** BA-111, and MTH-050 or higher

oc	<b>BA-211-01</b>	<b>325663 M</b>			<b>9-11:50 AM</b>	
	I. SETO		\$492.00	\$52.00	\$61.58	\$605.58
	Online textbook included in section fees.					

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**ESPAÑOL:** Enseñado en español

**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total	Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total
	Instructor	Tuition	Fee		Crs. Fee			Instructor	Tuition	Fee		Crs. Fee	
ONL	<b>BA-211-02</b> 325668 J. SAN-CLAIRE Online textbook included in section fees.	\$492.00	\$52.00		\$61.58	\$605.58	ONL LCT	<b>BA-224-01</b> 325680 M. MOISO Online textbook included in section fees.	\$492.00	\$52.00		\$40.00	\$584.00
<b>BA-213</b>	<b>DECISION MAKING WITH ACCOUNTING INFORMATION, 4 CREDITS</b> Building on the introduction to financial accounting, this course focuses on managerial accounting, which is the language of business for internal management in manufacturing and service organizations. Managerial accounting drives effective operational decisions by analyzing the components and flow of costs for products and services, as well as for jobs, activities, and segments. Budgets convey an organization's plan of operations, while performance measurement compares variances with actual results. This course is recommended for those interested in business in general, as well as for those planning a career in accounting. <b>Prerequisites:</b> BA-211						<b>BA-226</b>	<b>BUSINESS LAW I, 4 CREDITS</b> Includes concepts, principles, and rules of law applicable to business and personal transactions, with emphasis on sources of law, the U.S. Constitution, personal and business torts and crimes, case-based applications, ethics, and consumer contract law.					
ONL	<b>BA-213-01</b> 325669 J. SAN-CLAIRE Online textbook included in section fees.	\$492.00	\$52.00		\$97.11	\$641.11	ONL	<b>BA-226-01</b> 325682 M. MOISO Online textbook included in section fees.	\$492.00	\$52.00		\$61.24	\$605.24
OC	<b>BA-213-02</b> 329366 M I. SETO Online textbook included in section fees.	\$492.00	\$52.00		1-3:50 PM \$97.11	\$641.11	<b>BA-228</b>	<b>COMPUTERIZED ACCOUNTING, 3 CREDITS</b> An introductory, hands-on experience with computer applications that are used for accounting, including transaction entry for a full accounting cycle, from business setup through month-end close. This course features instruction for Quickbooks Online. <b>Prerequisites:</b> BA-111 or BA-211					
<b>BA-217</b>	<b>BUDGETING FOR MANAGERS, 3 CREDITS</b> Budgeting is a crucial managerial decision-making and planning tool that also incorporates performance evaluation through variance analysis. This course examines developing and managing department and project budgets in-depth, as well as how they fit into the overall organizational framework. Specifically, this course includes coverage of static, flexible, and rolling budgets, capital budgeting, variance analysis, break-even and contribution margin analysis, profit planning, manufacturing costs, and sales forecasts, and cost behavior. <b>Recommended Prerequisites:</b> BA-131, BA-211, BA-213, or some experience in accounting or budgeting						ONL LCT	<b>BA-228-01</b> 325684 T. FRANK Online textbook included in section fees.	\$369.00	\$39.00		\$55.00	\$463.00
OC LCT	<b>BA-217-01</b> 325673 T T. FRANK	\$369.00	\$39.00		2-4:50 PM \$5.00	\$413.00	<b>BA-251</b>	<b>SUPERVISORY MANAGEMENT, 3 CREDITS</b> Addresses the role and responsibilities of the first-line supervisor or manager. Includes planning and controlling, dealing with change, performance management, leadership, decision-making, communication, and managing teams. <b>Recommended Prerequisites:</b> WRD-090 or placement in WRD-098					
<b>BA-218</b>	<b>PERSONAL FINANCE, 4 CREDITS</b> Analysis and application of basic principles of personal finance including budgeting and spending, financial decision-making, use of credit, saving and investing, home purchase, taxes, risk management, retirement planning, estate planning, and other major personal finance topics. <b>Prerequisites:</b> BA-104 or MTH-050 or higher, and WRD-098						ONL	<b>BA-251-01</b> 325687 D. HEINIG	\$369.00	\$39.00		\$0.00	\$408.00
ONL	<b>BA-218-01</b> 325676 S. PARKER	\$492.00	\$52.00		\$0.00	\$544.00	<b>BA-270</b>	<b>SOCIAL MEDIA MARKETING, 4 CREDITS</b> This is an introductory course that provides an overview of social media and its role in marketing. Nearly everything consumers do is tracked online and this level of marketing analytics is assisting organizations develop a better understanding of consumer and market needs and trends. This course will seek to develop an understanding to how social media compliments marketing. <b>Recommended Prerequisites:</b> WRD-090 or placement in WRD-098					
<b>BA-223</b>	<b>PRINCIPLES OF MARKETING, 4 CREDITS</b> Offers a comprehensive investigation of strategic marketing in a global environment. Topics covered will include research, ethics, consumer behavior, product strategy, distribution strategy, promotional strategy and pricing strategy. <b>Recommended Prerequisites:</b> WRD-090 or placement in WRD-098						ONL LCT	<b>BA-270-01</b> 328909 C. CHATTERTON	\$492.00	\$52.00		\$0.00	\$544.00
ONL	<b>BA-223-01</b> 325679 S. PARKER	\$492.00	\$52.00		\$5.00	\$549.00	<b>BA-280</b>	<b>BUSINESS/CWE , 2-6 CREDITS</b> Cooperative work experience. On-the-job experience in a business related to the student's major course of study. Under supervision of instructor and employer. Variable Credit: 2-6 credits. May be repeated for up to 6 credits. Required: Student Petition. <b>Corequisites:</b> CWE-281					
<b>BA-224</b>	<b>HUMAN RESOURCE MANAGEMENT, 4 CREDITS</b> Focuses on a practical, real world approach to Human Resource Management for line managers and Human Resource Managers. Introduces history and current legal environment of Human Resource Management and applies current practice in the functions of staffing, human resource development, compensation, safety and health, and employee and labor relations in both union and non-union environment.						ONL LCT	<b>BA-280-01</b> 325691 S. PARKER Required: Student Petition. Corequisite: Take 1 of the following CWE-281-06.	\$738.00	\$78.00		\$45.00	\$861.00V
ONL	<b>BA-224-01</b> 325679 S. PARKER	\$492.00	\$52.00		\$5.00	\$549.00	ONL	<b>BA-280-02</b> 329274 B. FORNEY Required: Student Petition. Corequisite: Take the following CWE-281-06.	\$738.00	\$78.00		\$45.00	\$861.00V
<b>BA-285</b>	<b>HUMAN RELATIONS IN BUSINESS, 4 CREDITS</b>												

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**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Tuition	Fee	Time	Total
		Instructor					Crs. Fee	

Introduces the theory and practical application of human relations at the individual, group, and organizational levels. Emphasizes psychological principles that help build relationships among employees and employers. Includes goal setting, motivation, communication, leadership, conflict management, and individual and group behavior.

ONL	<b>BA-285-01</b>	<b>325696</b>						
	S. PARKER		\$492.00	\$52.00	\$5.00		\$549.00	
ONL	<b>BA-285-02</b>	<b>329427</b>						
	J. HERNANDEZ		\$492.00	\$52.00	\$53.61		\$597.61	
	Online textbook included in section fees.							

## Business Technology

### BT-120 PERSONAL KEYBOARDING, 2 CREDITS

Basic instruction on electronic alphanumeric keyboard. Provides practice for speed and accuracy within an individual program. Students will also develop the necessary skills to effectively use the Internet, use email, and create simple documents within a Google email profile and/or Microsoft Word.

ONL	<b>BT-120-01</b>	<b>325699</b>						
	S. SIMMONS		\$246.00	\$26.00	\$10.00		\$282.00	
ONL	<b>BT-120-02</b>	<b>325701</b>						
	S. SIMMONS		\$246.00	\$26.00	\$10.00		\$282.00	

### BT-121 DATA ENTRY, 1 CREDIT

This course is designed to teach the computer numeric keypad by touch with speed and accuracy using industry standards for data entry. This skill is especially helpful to people in the fields of data entry, accounting, office administration, insurance, banking and finance, and any other work that requires numeric input.

ONL	<b>BT-121-01</b>	<b>325702</b>						
	S. SIMMONS		\$123.00	\$13.00	\$10.00		\$146.00	
ONL	<b>BT-121-02</b>	<b>325703</b>						
	S. SIMMONS		\$123.00	\$13.00	\$10.00		\$146.00	

### BT-122 KEYBOARDING SKILLBUILDING, 2 CREDITS

Designed to improve keyboarding proficiency using the standard keyboarding by touch method established within BT-120. Speed and accuracy on the keyboard will be further refined. Proper formatting of various types of business communication will be reviewed and established (emails, memos, block-style business letters). Students will utilize Microsoft Word and/or Google documents to create letters and memos.

**Prerequisites:** BT-120

ONL	<b>BT-122-01</b>	<b>325704</b>						
	S. SIMMONS		\$246.00	\$26.00	\$10.00		\$282.00	
ONL	<b>BT-122-02</b>	<b>325712</b>						
	S. SIMMONS		\$246.00	\$26.00	\$10.00		\$282.00	

### BT-124 BUSINESS EDITING I, 3 CREDITS

Course builds business communication skills through the study of the written communication process and the correct use of grammar, spelling, vocabulary, types of written business communication, and basic editing principles.

**Recommended Prerequisites:** WRD-090 or placement in WRD-098

ONL LCT	<b>BT-124-01</b>	<b>325713</b>						
	S. SIMMONS		\$369.00	\$39.00	\$10.00		\$418.00	

### BT-125 BUSINESS EDITING II, 3 CREDITS

#### Campus Locations:

**HAR:** Harmony Community Campus  
**OC:** Oregon City Campus  
**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

#### Distance Education Notification:

**ONL:** Online Only  
**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

#### Other Coding Translations:

**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

#### ESPAÑOL: Enseñado en español

**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Tuition	Fee	Time	Total
		Instructor					Crs. Fee	

This course continues the study of professional editing and writing in a business office. The continued and correct use of acceptable spelling, grammar, and formatting of business documents will be covered in-depth, with increased practice in writing and editing skills in the composition of letters, memos, emails, reports, and presentations. Functional business reports will be covered in relation to written reports and proposals, as well as customer service phone etiquette and the creation of professional presentations for the workplace.

**Prerequisites:** BT-124 with a C or better

ONL LCT	<b>BT-125-01</b>	<b>325714</b>						
	S. SIMMONS		\$369.00	\$39.00	\$10.00		\$418.00	

### BT-160 WORD I, 3 CREDITS

Introductory-level course where students learn basic concepts of the Word software program. This course is designed for students who have no or little knowledge of Word.

**Required:** Access to the following equipment and software: Personal computer or laptop with MS Windows operating system (preferably Windows 8 or 10), MS Word, or access to the CCC Dye Academic Computer Lab for coursework

**Recommended:** 35 words per minute typing skill or BT-120

ONL	<b>BT-160-01</b>	<b>325715</b>						
	F. MEYERS		\$369.00	\$39.00	\$109.99		\$517.99	
	Office 2021 version is used. Online textbook included in section fees.							

### BT-161 WORD II, 3 CREDITS

This is an intermediate-level course where students learn more advanced features of the Microsoft Word software program. The course is designed for students who have completed BT-160, Word I.

**Required:** Access to the following equipment and software: Personal computer or laptop with MS Windows operating system (preferably Windows 8 or 10), MS Word, or access to the CCC Dye Academic Computer Lab for coursework

**Prerequisites:** BT-160 with a C or better

**Recommended Prerequisites:** BT-124 and 35 words per minute typing skill

ONL	<b>BT-161-01</b>	<b>325719</b>						
	F. MEYERS		\$369.00	\$39.00	\$109.99		\$517.99	
	Office 2021 version is used. Online textbook included in section fees.							

### BT-262 INTEGRATED PROJECTS, 4 CREDITS

Advanced use and integration of Microsoft Word, Excel, Access and PowerPoint skills in creating letters, reports, and forms; creation of advanced Excel worksheet reports and budgets; creation of Access databases to generate reports and forms; creation of PowerPoint presentations. Introduction to the use of Adobe Professional for use with documents, forms, and web pages. Google applications such as documents, presentations, spreadsheets, and Gmail.

**Prerequisites:** BA-131 and BT-160

ONL	<b>BT-262-01</b>	<b>325722</b>						
	B. FORNEY		\$492.00	\$52.00	\$10.00		\$554.00	

## Chemistry

### CH-104 INTRODUCTORY CHEMISTRY, 5 CREDITS

A lab transfer course for students in nursing, allied health fields and liberal arts. Topics include: observation, measurement, composition, stoichiometry, atomic structure, periodic table, bonding and nomenclature.

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total	Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor	Instructor	Tuition	Fee	Crs. Fee			Instructor	Instructor	Tuition	Fee	Crs. Fee	
<b>Corequisites:</b> CH-104L and CH-104S							<b>OC</b> <b>CH-112L-01 325718 W 10-11:50 AM</b>						
<b>Prerequisites:</b> MTH-065 or MTH-098 or placement in MTH-095; and WRD-090 or placement in WRD-098							E. FRANCIS \$0.00 \$0.00 \$0.00 \$0.00						
Corequisite: Take the following CH-104S-01, CH-104L-01.							Corequisite: Take the following CH-112-01.						
OC LCT	<b>CH-104-01 325700 MW 2-3:20 PM</b>	D. MYERS	\$615.00	\$65.00	\$50.00	\$730.00	HAR	<b>CH-112L-30 325723 W 1-3:50 PM</b>	S. MCDONALD	\$0.00	\$0.00	\$0.00	\$0.00
ONL LCT	<b>CH-104-40 325705</b>	X. DONG	\$615.00	\$65.00	\$50.00	\$730.00	ONL	<b>CH-112L-40 325725</b>	D. PAUL	\$0.00	\$0.00	\$0.00	\$0.00
Corequisite: Take the following CH-104S-40, CH-104L-40.							Corequisite: Take the following CH-112-40.						
<b>CH-104L INTRODUCTORY CHEMISTRY LAB, 0 CREDIT</b>							<b>CH-114 CHEMISTRY IN ART, 4 CREDITS</b>						
Lab course for CH-104							An introductory laboratory science course designed specifically for the non-science student. Offers a broad, non-quantitative descriptive survey of scientific principles relevant to art and art-related topics such as light, color, pigments, dyes, solubility, acidity, oxidation, and polymers. Emphasizes an interdisciplinary perspective on chemistry.						
<b>Corequisites:</b> CH-104 and CH-104S							<b>Corequisites:</b> CH-114L						
Corequisite: Take the following CH-104S-01, CH-104L-01.							<b>Recommended Prerequisites:</b> WRD-090 or placement in WRD-098						
OC	<b>CH-104L-01 325706 TBA</b>	D. MYERS	\$0.00	\$0.00	\$0.00	\$0.00	HAR LCT	<b>CH-114-30 325726 TTH 9-10:20 AM</b>	E. FRANCIS	\$492.00	\$52.00	\$50.00	\$594.00
OC	<b>CH-104L-40 325707 TBA</b>	D. MYERS	\$0.00	\$0.00	\$0.00	\$0.00	Corequisite: Take the following CH-114L-30.						
Open Lab: Students must spend 3 hours per week in Chemistry Tutorial Lab. DJ-242 Lab Hours: W & F 9am-3pm; TH 9am-8pm. Corequisite: Take the following CH-104S-01, CH-104-01.							<b>CH-114L CHEMISTRY IN ART LAB, 0 CREDIT</b>						
Open lab. Students must spend 3 hrs per week in Chem Tutorial lab. DJ-242 Lab Hours: W & F 9am-3pm; TH 9am-8pm. Corequisite: Take the following CH-104S-40, CH-104-40.							Lab course for CH-114						
<b>CH-104S INTRODUCTORY CHEMISTRY SEMINAR, 0 CREDIT</b>							<b>Corequisites:</b> CH-114						
Seminar course for CH-104							HAR <b>CH-114L-30 325728 TTH 10:30 -11:50 AM</b>						
<b>Corequisites:</b> CH-104 and CH-104L							E. FRANCIS \$0.00 \$0.00 \$0.00 \$0.00						
OC	<b>CH-104S-01 325708 W 3:30 -4:20 PM</b>	D. MYERS	\$0.00	\$0.00	\$0.00	\$0.00	Corequisite: Take the following CH-114-30.						
ONL	<b>CH-104S-40 325710</b>	X. DONG	\$0.00	\$0.00	\$0.00	\$0.00	<b>CH-150 PREPARATORY CHEMISTRY, 4 CREDITS</b>						
Corequisite: Take the following CH-104L-40, CH-104-40.							One term preparatory course for students who must take the general chemistry sequence (CH-221/222/223) but have no chemistry background.						
<b>CH-112 CHEMISTRY FOR HEALTH SCIENCES, 4 CREDITS</b>							<b>Corequisites:</b> CH-150S						
One-term preparatory chemistry course for students who want to take BI-231 and/or BI-234. Includes measurement; atomic structure; periodic table; bonding; nomenclature; heat; molecular and ionic interactions in solids; liquids and solutions; chemical reactions including acid-base; organic chemistry; and biochemistry.							<b>Prerequisites:</b> MTH-095 or placement in MTH-111Z						
<b>Corequisites:</b> CH-112L							OC <b>CH-150-01 325731 MWF 10-10:50 AM</b>						
<b>Prerequisites:</b> MTH-065 or MTH-098 with a C or better or placement in MTH-095							X. DONG \$492.00 \$52.00 \$20.00 \$564.00						
<b>Prerequisites:</b> WRD-090 or placement in WRD-098							Corequisite: Take the following CH-150S-01.						
<b>Recommended Corequisite:</b> BI-112							ONL <b>CH-150-02 325732</b>						
OC HYB	<b>CH-112-01 325711 M 10-11:50 AM</b>	E. FRANCIS	\$492.00	\$52.00	\$50.00	\$594.00	S. MCDONALD \$492.00 \$52.00 \$20.00 \$564.00						
ONL	<b>CH-112-30 325716</b>	S. MCDONALD	\$492.00	\$52.00	\$50.00	\$594.00	This section has an in-person seminar requirement. Corequisite: Take the following CH-150-02.						
ONL	<b>CH-112-40 325717</b>	D. PAUL	\$492.00	\$52.00	\$50.00	\$594.00	ONL <b>CH-150-03 325733</b>						
Corequisite: Take the following CH-112L-40.							D. PAUL \$492.00 \$52.00 \$20.00 \$564.00						
<b>CH-112L CHEMISTRY FOR HEALTH SCIENCES LAB, 0 CREDIT</b>							This section includes an in-person seminar requirement. Corequisite: Take the following CH-150S-03.						
Lab course for CH-112							<b>CH-150S PREPARATORY CHEMISTRY SEMINAR, 0 CREDIT</b>						
<b>Corequisites:</b> CH-112							Seminar course for CH-150						
<b>Corequisites:</b> CH-112							<b>Corequisites:</b> CH-150						
<b>Campus Locations:</b>							<b>Distance Education Notification:</b>						
<b>HAR:</b> Harmony Community Campus							<b>ONL:</b> Online Only						
<b>OC:</b> Oregon City Campus							<b>REM:</b> Remote (w/ scheduled meetings)						
<b>WILS:</b> Wilsonville Training Center							<b>HYB:</b> In-person plus online work						
<b>OFF:</b> Other Off-Campus Location							<b>Other Coding Translations:</b>						
							<b>TBA:</b> To be arranged: contact department first class						
							<b>VAR:</b> Variable credit class						
							<b>ESPAÑOL:</b> Enseñado en español						
							<b>LCT:</b> Low-Cost Text						

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total	Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor	Tuition	Fee		Crs. Fee			Instructor	Tuition	Fee		Crs. Fee	
<b>CH-221</b>	<b>GENERAL CHEMISTRY, 5 CREDITS</b>						<b>CH-241</b>	<b>ORGANIC CHEMISTRY I, 5 CREDITS</b>					
	Transfer lab course for science, engineering, and professional majors. Covers the nature of chemistry, atomic theory, electron configuration, structure, bonding, properties, composition and nomenclature of covalent and ionic substances. Introduces organic chemistry and biochemistry topics.							First term of transfer sequence meeting organic chemistry requirement for premedical, dental, veterinary, pharmacy, chiropractic medicine, chemical engineering and biology majors.					
	<b>Prerequisites:</b> CH-104 and CH-105, or CH-150, with a C or better; or a year of high school chemistry within five academic years of beginning CH-221 (passed all terms with C or higher)							<b>Prerequisites:</b> CH-223					
	<b>Corequisites:</b> CH-221L and CH-221S							<b>Corequisites:</b> CH-241L and CH-241S					
OC HYB	<b>CH-221-01</b> 325740 MWF 10-10:50 AM						OC	<b>CH-241-01</b> 325765 MW 2-3:20 PM					
	D. MYERS \$615.00 \$65.00 \$50.00 \$730.00							E. FRANCIS \$615.00 \$65.00 \$50.00 \$730.00					
	This section also includes weekly asynchronous coursework. Corequisite: Take 2 of the following CH-221L-01, CH-221L-02, CH-221S-01, CH-221S-02.							Corequisite: Take the following CH-241L-01, CH-241S-01.					
OC	<b>CH-221-20</b> 325746 T 6-8:50 PM												
	J. DU BOULAY \$615.00 \$65.00 \$50.00 \$730.00												
	This class has an in-person lab requirement. Corequisite: Take the following CH-221L-20, CH-221S-20.												
ONL	<b>CH-221-40</b> 325745												
	J. DU BOULAY \$615.00 \$65.00 \$50.00 \$730.00												
	This section has an in-person lab requirement and seminar requirement. Corequisite: Take the following CH-221L-40, CH-221S-40.												
<b>CH-221L</b>	<b>GENERAL CHEMISTRY LAB, 0 CREDIT</b>						<b>CH-241L</b>	<b>ORGANIC CHEMISTRY I LAB, 0 CREDIT</b>					
	Lab course for CH-221							Lab course for CH-241					
	<b>Corequisites:</b> CH-221 and CH-221S							<b>Corequisites:</b> CH-241 and CH-241S					
OC	<b>CH-221L-01</b> 325748 TH 9-11:50 AM						OC	<b>CH-241L-01</b> 325767 F 9-11:50 AM					
	D. MYERS \$0.00 \$0.00 \$0.00 \$0.00							E. FRANCIS \$0.00 \$0.00 \$0.00 \$0.00					
	Corequisite: Take 2 of the following CH-221-01, CH-221S-01, CH-221S-02.							Corequisite: Take the following CH-241-01, CH-241S-01.					
OC	<b>CH-221L-02</b> 325750 TH 1-3:50 PM												
	D. MYERS \$0.00 \$0.00 \$0.00 \$0.00												
	Corequisite: Take 2 of the following CH-221-01, CH-221S-01, CH-221S-02.												
OC	<b>CH-221L-20</b> 325754 TH 7-9:50 PM												
	J. DU BOULAY \$0.00 \$0.00 \$0.00 \$0.00												
	Corequisite: Take the following CH-221-20, CH-221S-20.												
OC	<b>CH-221L-40</b> 325752 F 2-4:50 PM												
	J. DU BOULAY \$0.00 \$0.00 \$0.00 \$0.00												
	Corequisite: Take the following CH-221-40, CH-221S-40.												
<b>CH-221S</b>	<b>GENERAL CHEMISTRY SEMINAR, 0 CREDIT</b>						<b>CH-241S</b>	<b>ORGANIC CHEMISTRY I SEMINAR, 0 CREDIT</b>					
	Seminar course for CH-221							Seminar course for CH-241					
	<b>Corequisites:</b> CH-221 and CH-221L							<b>Corequisites:</b> CH-241 and CH-241L					
OC	<b>CH-221S-01</b> 325755 W 11-11:50 AM						ONL	<b>CH-241S-01</b> 325769					
	D. MYERS \$0.00 \$0.00 \$0.00 \$0.00							E. FRANCIS \$0.00 \$0.00 \$0.00 \$0.00					
	Corequisite: Take 2 of the following CH-221L-01, CH-221L-02, CH-221-01.							This section has in-person lecture and lab requirements. Corequisite: Take the following CH-241-01, CH-241L-01.					
OC	<b>CH-221S-02</b> 325759 W 1-1:50 PM												
	D. MYERS \$0.00 \$0.00 \$0.00 \$0.00												
	Corequisite: Take 2 of the following CH-221L-01, CH-221L-02, CH-221-01.												
OC	<b>CH-221S-20</b> 325762 TH 6-6:50 PM												
	J. DU BOULAY \$0.00 \$0.00 \$0.00 \$0.00												
	Corequisite: Take the following CH-221-20, CH-221L-20.												
OC	<b>CH-221S-40</b> 325761 F 1-1:50 PM												
	J. DU BOULAY \$0.00 \$0.00 \$0.00 \$0.00												
	Corequisite: Take the following CH-221L-40, CH-221-40.												

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**Distance Education Notification:**  
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**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

**Other Coding Translations:**  
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**ESPAÑOL:** Enseñado en español  
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## College and Career Guidance

### EL-103 TAKING EFFECTIVE NOTES, 1 CREDIT

Designed to help students develop effective note-taking skills. Several note-taking systems are introduced and practiced.

**Prerequisites:** WRD-080 or placement in WRD-090

Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
ONL LCT	<b>EL-103-13</b> 325768			
	B. MALONEY \$123.00 \$13.00 \$0.00 \$136.00			

### EL-111 COLLEGE STUDY SKILLS, 3 CREDITS

Emphasizes time management, listening/notetaking, testing skills/anxiety, college resources, learning styles, reading strategies, textbook reading, and concentration skills.

**Prerequisites:** WRD-080 or placement in WRD-090

Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
OC HYB LCT	<b>EL-111-01</b> 325771 T 1-2:20 PM			
	A. WICKERT \$369.00 \$39.00 \$15.00 \$423.00			

### HD-102 SERVICE LEARNING EXPERIENCE, 1-6 CREDITS

Provides students with a service learning experience in a community setting. Students complete 30-180 hours of volunteer work and participate in ongoing journaling as well as reflection exercises to connect volunteer work with an area of study. Variable Credit: 1-6 credits. 30 hours of service required for each 1 credit earned. May be repeated for up to 6 credits. Required: Student Petition.

Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
ONL	<b>HD-102-01</b> 325986			
	J. GINSBURG \$738.00 \$78.00 \$45.00 \$861.00V			
	Required: Student Petition.			

### HD-121 COLLEGE SUCCESS, 3 CREDITS

Provides strategies for creating college success by understanding one's role in their learning and by gaining critical skills necessary to learn across contexts.

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	
ONL	<b>HD-121-01</b> 325877 C. WEGNER		\$369.00	\$39.00	\$0.00	\$408.00
Meets: 9/5-9/22. Required: Student Petition.						
oc	<b>HD-121-02</b> 325882 MTWTHF 10-11:50 AM E. PFEIFER		\$369.00	\$39.00	\$0.00	\$408.00
Meets: 9/5-9/22. Required: Student Petition.						

**HD-130 COMMUNITY COLLEGE PEER LEADERSHIP, 2 CREDITS**

Designed for Clackamas Community College peer mentors and Learning Center tutors. Covers a variety of elements that lead to effective leadership and tutoring in community colleges, including FERPA regulations training, communication styles, adult developmental theories, student resource training, and on-site contacts for each of CCC's service areas.

OC HYB	<b>HD-130-01</b> 325990 F 10-11:50 AM B. HSIAO J. MCALPINE		\$0.00	\$0.00	\$0.00	\$0.00
Required: Student Petition.						

**HD-138 UNDERSTANDING AND MANAGING ANXIETY AND DEPRESSION, 3 CREDITS**

Identifies components of anxiety and depression, contexts in which anxiety and depression occur, and solutions for coping with anxiety and depression symptoms through the use of various anxiety and depression management techniques.

oc	<b>HD-138-01</b> 329433 TTH 1-2:20 PM J. CORTES		\$369.00	\$39.00	\$10.00	\$418.00
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**HD-140 CAREER EXPLORATION, 3 CREDITS**

Students use information about themselves (values, interests, personality and skills) and information about the world of work (careers and industries) to explore and make long term career decisions.

ONL	<b>HD-140-01</b> 325993 L. MARTINEZ		\$369.00	\$39.00	\$10.00	\$418.00
Late Start Course. Meets: 10/11-12/10.						

**HD-144 ASSERTIVENESS, 1 CREDIT**

Students can use this course to develop assertiveness in their communication and interpersonal relationships. The course focuses on identifying and meeting personal needs, setting boundaries, and asserting oneself in career, social, and personal settings.

HAR	<b>HD-144-30</b> 325996 F 6-8:50 PM S 9-4:50 PM M. MALLATT		\$123.00	\$13.00	\$10.00	\$146.00
Meets: 11/17 & 11/18.						

**HD-145 STRESS MANAGEMENT, 1 CREDIT**

Identifies specific personal stressors and focuses on developing skills that enable students to deal more effectively with stress.

HAR	<b>HD-145-30</b> 326000 F 6-8:50 PM S 9-4:50 PM M. MALLATT		\$123.00	\$13.00	\$10.00	\$146.00
Meets: 10/13 & 10/14.						

**HD-154 BUILDING SELF-CONFIDENCE, 1 CREDIT**

This course is designed to address the elements forming and influencing self-confidence as well as practicing techniques on disarming your inner critic, dealing with fear, reflection of confidence on self-esteem, personal power, and building on personal accomplishments and assets.

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	
OC	<b>HD-154-01</b> 326008 F 6-8:50 PM S 9-4:50 PM C. BAKER		\$123.00	\$13.00	\$10.00	\$146.00
Meets: 10/20 & 10/21.						

**HD-220 LEADERSHIP: THEORY INTO PRACTICE, 2 CREDITS**

Introduces leadership skills and theories. Includes translating theory into practice. Students discuss how leadership practices are put to use in campus leadership roles.

**Required:** Required for members of CCC's Associated Student Government or a Peer Assistant (that have not previously taken this course)

OC HYB	<b>HD-220-03</b> 326014 M 3-4:50 PM M. BAKER		\$246.00	\$26.00	\$0.00	\$272.00
OC HYB	<b>HD-220-04</b> 326015 TH 8-9:50 AM J. GINSBURG		\$246.00	\$26.00	\$0.00	\$272.00

**Communication Studies**

**COMM-100Z INTRODUCTION TO COMMUNICATION, 4 CREDITS**

COMM-100Z is a survey course offering an overview of the communication discipline that emphasizes the development of best communication practices in different contexts.

OC LCT	<b>COMM-100Z-01</b> 325232 MW 3-4:50 PM L. HANN		\$492.00	\$52.00	\$0.00	\$544.00
OC LCT	<b>COMM-100Z-02</b> 329276 TTH 10-11:50 AM L. HANN		\$492.00	\$52.00	\$0.00	\$544.00

**COMM-111Z PUBLIC SPEAKING, 4 CREDITS**

COMM-111Z emphasizes developing communication skills by examining and demonstrating how self-awareness, audience, content, and occasion influence the creation and delivery of speeches and presentations.

**Prerequisites:** WRD-098 or placement in WR-121Z

OC LCT	<b>COMM-111Z-01</b> 325241 MW 8-9:50 AM K. BRENNAN		\$492.00	\$52.00	\$20.00	\$564.00
REM LCT	<b>COMM-111Z-02</b> 325246 TTH 8-9:50 AM K. HUGHES		\$492.00	\$52.00	\$20.00	\$564.00
OC LCT	<b>COMM-111Z-03</b> 325249 MW 9-10:50 AM K. HUGHES		\$492.00	\$52.00	\$20.00	\$564.00
OC LCT	<b>COMM-111Z-04</b> 325251 MW 10-11:50 AM K. BRENNAN		\$492.00	\$52.00	\$20.00	\$564.00
OC LCT	<b>COMM-111Z-05</b> 325252 TTH 10-11:50 AM A. NELSON LEWIS		\$492.00	\$52.00	\$20.00	\$564.00
REM LCT	<b>COMM-111Z-06</b> 325255 TTH 10-11:50 AM K. HUGHES		\$492.00	\$52.00	\$20.00	\$564.00
OC LCT	<b>COMM-111Z-07</b> 325257 MW 11-12:50 PM K. HUGHES		\$492.00	\$52.00	\$20.00	\$564.00
OC LCT	<b>COMM-111Z-08</b> 325259 MW 1-2:50 PM M. WILLIAMS		\$492.00	\$52.00	\$20.00	\$564.00

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Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total	Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor	Tuition	Fee	Crs. Fee				Instructor	Tuition	Fee	Crs. Fee		
OC LCT	<b>COMM-111Z- 325261 TTH</b> 09 L. HANN	\$492.00	\$52.00	\$20.00	<b>1-2:50 PM</b>	\$564.00							
OC LCT	<b>COMM-111Z- 325264 TTH</b> 10 L. HANN	\$492.00	\$52.00	\$20.00	<b>1-2:50 PM</b>	\$564.00							
Students in this course will also participate in the Ireland Study Abroad program Dec 6-18-2023. Additional costs of program are not included in course fee. See instructor for details lucas.hann@clackamas.edu or 503.594.3159.													
OC LCT	<b>COMM-111Z- 329380 T</b> 11 K. DOSS	\$492.00	\$52.00	\$20.00	<b>6-9:50 PM</b>	\$564.00							
WLS LCT	<b>COMM-111Z- 325268 TH</b> 15 TBA	\$492.00	\$52.00	\$20.00	<b>6-9:50 PM</b>	\$564.00							
HAR HYB LCT	<b>COMM-111Z- 325271 TTH</b> 30 J. SMITH	\$492.00	\$52.00	\$20.00	<b>1-2:50 PM</b>	\$564.00							
Class will meet in person on 9/26/23 and additional required in-person dates will be discussed with students at that time. Any classes that don't meet in person will meet remotely.													
HAR LCT	<b>COMM-111Z- 325273 MW</b> 31 J. NETZER	\$492.00	\$52.00	\$20.00	<b>6-7:50 PM</b>	\$564.00							
<b>COMM-126</b>	<b>INTRODUCTION TO GENDER COMMUNICATION, 4 CREDITS</b>												
This course explores the relationships among communication, gender, sexuality, and other intersections of identity. We will examine how contact produces and perpetuates constructions and performances of gender, as well as how understandings of gender influence communication practices. We will learn about various approaches to the study of gender and communication, and we will identify predominant patterns of gendering that shape our culture.													
<b>Recommended Prerequisites:</b> WRD-098 or placement in WR-121Z													
OC LCT	<b>COMM-126-01 325275 MW</b> L. HANN	\$492.00	\$52.00	\$0.00	<b>1-2:50 PM</b>	\$544.00							
<b>COMM-140</b>	<b>INTRODUCTION TO INTERCULTURAL COMMUNICATION, 4 CREDITS</b>												
Intercultural Communication is a course dedicated to exploring the impact cultural differences have on the communication process. Students explore their own cultural behaviors and possible ways to deal with difficult situations when cultural differences cause a problem(s). Emphasis is given to the influence of culture on the interpretation of the communication act and to the communication skills that enhance cross-cultural communication.													
<b>Required:</b> Non-native English speakers must have a Student Performance Level of 8 as measured by the BEST Plus. There is not a requirement for native speakers													
<b>Recommended Prerequisites:</b> WRD-098 or placement in WR-121Z													
OC HYB LCT	<b>COMM-140-01 329275 F</b> TBA K. HUGHES	\$492.00	\$52.00	\$0.00	<b>10-11:50 AM</b>	\$544.00							
Students in this course will participate in the Ireland Study Abroad program Dec 6-18-2023. Additional costs of program are not included in course fee. See instructor for details kerrieh@clackamas.edu or 503.594.3155. HYBRID. Students will be contacted by instructor about dates course will meet remotely.													
<b>COMM-212</b>	<b>MASS MEDIA &amp; SOCIETY, 4 CREDITS</b>												
This course takes students through a critical study of the production and consumption of mass media, including television, radio, books, film, news, advertising and the internet. Students also examine the economic and social organization of mass media, the growth of new media technologies, and the relationship between media and the public.													
<b>Recommended Prerequisites:</b> WRD-098 or placement in WR-121Z													
OC LCT	<b>COMM-212-01 325277 MW</b> M. JONES	\$492.00	\$52.00	\$10.00	<b>10-11:50 AM</b>	\$554.00							
<b>COMM-218Z</b>	<b>INTERPERSONAL COMMUNICATION, 4 CREDITS</b>												
COMM-218Z increases the knowledge and use of competent communication skills to better understand oneself, others, and the role of communication in interpersonal relationships.													
<b>Recommended Prerequisites:</b> WRD-098 or placement in WR-121Z													
OC HYB LCT	<b>COMM-218Z- 325279 MW</b> 01 J. SMITH	\$492.00	\$52.00	\$0.00	<b>9-10:50 AM</b>	\$544.00							
Class will meet in person on the first day of the term (9/25/23) and additional required in-person dates will be discussed with students at that time. Any classes that don't meet in person will meet remotely.													
HAR	<b>COMM-218Z- 325283 TTH</b> 30 M. WILLIAMS	\$492.00	\$52.00	\$0.00	<b>10-11:50 AM</b>	\$544.00							
<b>COMM-280</b>	<b>SPEECH/CWE, 2-6 CREDITS</b>												
Cooperative work experience. Provides students with on-the-job experience in the field of communications. Variable Credit: 2-6 credits. Required: Student Petition.													
<b>Corequisites:</b> CWE-281													
ONL LCT	<b>COMM-280-01 325284</b> K. HUGHES	\$738.00	\$78.00	\$45.00		\$861.00V							
Required: Student Petition.													
<b>Computer Science</b>													
<b>CS-120</b>	<b>SURVEY OF COMPUTING, 4 CREDITS</b>												
A computer competency course to familiarize students with computer concepts, software applications and the implications of living in the digital age. Introduces students to computer concepts, including, but not limited to the Microsoft Windows environment, Microsoft Office Applications, hardware terminology, social media and the Internet.													
<b>Required:</b> Flash drive													
<b>Prerequisites:</b> WRD-098 or placement in WR-121Z													
OC HYB	<b>CS-120-01 329426 W</b> M M. SORRENTINO	\$492.00	\$52.00	\$20.00	<b>10-11:20 AM</b> <b>10-11:20 AM</b>	\$564.00							
Section meets Mondays remote via Zoom from 10-11:20. Section meets in-person on campus on Wednesdays from 10-11:20.													
ONL	<b>CS-120-30 325288</b> M. SORRENTINO	\$492.00	\$52.00	\$20.00		\$564.00							
<b>CS-125H</b>	<b>HTML &amp; WEB SITE DESIGN, 3 CREDITS</b>												
Hands-on approach to planning, design, and developing published web sites using HTML tags in a text editor. The class focuses on basic HTML coding using HTML 5 models. Hyperlinks, images, cascading style sheets, forms, accessibility and design principles will be covered, as well as tools such as FTP clients, accessibility checkers, and validators.													

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**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total	Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee			Instructor		Tuition	Fee	Crs. Fee	
<b>Recommended Prerequisites:</b> CS-120 or equivalent experience							OC HYB LCT	<b>CS-153-30</b>	<b>325300 T</b>			<b>10-11:05 AM</b>	
												<b>10-11:50 AM</b>	
OC HYB	<b>CS-125H-01</b>	<b>329428 W</b>			<b>1-2:20 PM</b>			R. CARINO		\$492.00	\$52.00	\$20.00	\$564.00
	D. CARINO		\$369.00	\$39.00	\$20.00	\$428.00							
	Section meets Mondays remote via Zoom from 1-2:20pm. Section meets in-person on campus on Wednesdays from 1-2:20pm.												
ONL	<b>CS-125H-30</b>	<b>325291</b>											
	D. CARINO		\$369.00	\$39.00	\$20.00	\$428.00							
	Section meets in-person on campus on Thursdays from 10:00am-11:50am.												
	<b>CS-160 COMPUTER SCIENCE ORIENTATION, 4 CREDITS</b>												
	Examines foundational computing subjects used in Computer Science and Information Technology. Topics include computer architecture, electronic logic, data representation, networking, algorithms and programming, which are used in successive Computer Science courses. Information about degrees in Computer Science and Information Technology is also covered.												
	<b>Recommended Prerequisites:</b> MTH-060 or placement in MTH-065												
OC LCT	<b>CS-160-01</b>	<b>325302 TTH</b>						R. ALBERS		\$492.00	\$52.00	\$20.00	\$564.00
ONL LCT	<b>CS-160-02</b>	<b>325304</b>						R. ALBERS		\$492.00	\$52.00	\$20.00	\$564.00
ONL LCT	<b>CS-160-03</b>	<b>325305</b>						R. ALBERS		\$492.00	\$52.00	\$20.00	\$564.00
	<b>CS-161 COMPUTER SCIENCE I, 4 CREDITS</b>												
	Introduction to fundamental concepts of structured programming, including problem solving, algorithm and program design, data types, loops, control structures, subroutines, and arrays. Learn to write structured programs in a high level programming language.												
	<b>Prerequisites:</b> MTH-111Z or placement in MTH-112Z, or 4 years high school math												
OC	<b>CS-161-01</b>	<b>325306 MW</b>						J. MILLER		\$492.00	\$52.00	\$20.00	\$564.00
ONL	<b>CS-161-02</b>	<b>325308</b>						J. MILLER		\$492.00	\$52.00	\$20.00	\$564.00
ONL	<b>CS-161-03</b>	<b>325310</b>						J. MILLER		\$492.00	\$52.00	\$20.00	\$564.00
	<b>CS-205 SYSTEM PROGRAMMING AND ARCHITECTURE, 4 CREDITS</b>												
	Introduces how high-level software runs on a computer system. Covers C programming and the assembly that C code becomes. Presents the fundamentals of computer architecture and how instructions and data are represented at the machine level. Provides experience analyzing compiled code to build necessary skills for future work in cybersecurity, operating systems, compilers, and other CS topics involving low-level computation.												
	<b>Prerequisites:</b> CS-162												
ONL	<b>CS-205-01</b>	<b>328910</b>						R. ALBERS		\$492.00	\$52.00	\$20.00	\$564.00
	<b>CS-225 COMPUTER END USER SUPPORT, 3 CREDITS</b>												
	Addresses professional and interpersonal skills needed by technicians who support and manage hardware and software information systems. Customer service skills; troubleshooting; helpdesk operation; product needs analysis, evaluation, purchase, and installation; technical documentation and training.												
	<b>Prerequisites:</b> CS-120 or placement in CS-121 or equivalent experience. WRD-098 or placement in WR-101 or WR-121Z												
ONL	<b>CS-225-30</b>	<b>325311</b>						R. CARINO		\$369.00	\$39.00	\$20.00	\$428.00
	<b>CS-227 COMPUTER HARDWARE &amp; REPAIR, 4 CREDITS</b>												

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	Section No Instructor		Tuition Fee	Crs. Fee	

An in-depth course in computer hardware. Covers operational concepts, identification, installation, configuration, and troubleshooting of power supplies, motherboards, microprocessors, memory modules, disk drives, optical drives, and expansion cards. This course, in conjunction with CS-228, covers the topics of the CompTIA A+ certification exam.

oc	<b>CS-227-01</b>	<b>325313</b>	<b>W</b>	<b>10-12:50 PM</b>	
			<b>M</b>	<b>10-12:50 PM</b>	
	R. ALBERS	\$492.00	\$52.00	\$20.00	\$564.00

**CS-240L LINUX ADMINISTRATION I, 4 CREDITS**

Covers the fundamentals of the Linux operating system. Topics include: system architecture, installation, command line and file system. This course, along with CS-241L, covers the topics of the Linux LPIC-1 (or CompTIA Linux+) certification exam.

**Prerequisites:** CS-140

ONL LCT	<b>CS-240L-30</b>	<b>325316</b>			
	R. CARINO	\$492.00	\$52.00	\$20.00	\$564.00

**CS-260 DATA STRUCTURES, 4 CREDITS**

Covers common data structures used for the storage and manipulation of data, as well as data abstraction, sorting algorithms, and algorithm analysis. Data structures include linked lists, stacks, queues, binary trees, btrees, hash tables, and graphs.

**Prerequisites:** CS-162

ONL	<b>CS-260-01</b>	<b>325318</b>			
	J. MILLER	\$492.00	\$52.00	\$20.00	\$564.00

**CS-280 COMPUTER SCIENCE/CWE, 1-6 CREDITS**

Cooperative Work Experience. This course provides supervised work experience to supplement the academic classroom environment. Work examples include user support, work with computer applications or programming languages, installation or management PC computer systems, and developing websites. Variable Credit: 1-6 credits. May be repeated for up to 9 credits. Required: Student Petition.

**Corequisites:** CWE-281

ONL LCT	<b>CS-280-01</b>	<b>325319</b>			
	J. MILLER	\$738.00	\$78.00	\$45.00	\$861.00V
	Required: Student Petition. Restricted to computer science students. Corequisite: Take the following CWE-281-05.				

**Computer-Aided Drafting Technology**

Call 503-594-3318 for more information, or contact Advising, 503-594-3475.

**CDT-102 SKETCHING & PROBLEM SOLVING, 3 CREDITS**

Freehand sketching encountered in drafting engineering projects. Selecting views and implementing drafting standards. Dimensioning, lettering, sections and auxiliary views are covered. Problem solving in individual and group settings.

oc	<b>CDT-102-01</b>	<b>325695</b>	<b>TTH</b>	<b>12-2:50 PM</b>	
	C. CONNORS	\$369.00	\$39.00	\$153.75	\$561.75
	A. FOUHY				

**CDT-223 INVENTOR FUNDAMENTALS, 3 CREDITS**

Introduces parametric and adaptive modeling techniques using Autodesk Inventor. This course will guide students through design environment setup, creation of simple and complex part geometry, assembly building, animation, and detailed 2D drawing output.

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	Section No Instructor		Tuition Fee	Crs. Fee	

**Recommended:** Basic working knowledge of Windows operating system and Microsoft Excel

REM	<b>CDT-223-01</b>	<b>325697</b>	<b>MW</b>	<b>4:30 -7:20 PM</b>	
	M. ROTUNDO	\$369.00	\$39.00	\$153.75	\$561.75

**Cooperative Work Experience**

All students must register for the appropriate CWE course and a CWE Seminar as listed in the following section - Cooperative Work Experience Seminar. Instructor approval is required for all CWE courses. Note: day and time of CWE classes are arranged according to the student's work hours on the job. Students may earn a maximum of 6 CWE credits per term or a maximum of 12 CWE credits per year. Visit the department website at <https://www.clackamas.edu/cwe> or call 503-594-3511 for more information.

**CWE-281 COOPERATIVE WORK EXPERIENCE SEMINAR, 0 CREDIT**

The seminar provides an opportunity to develop the career management skills necessary to obtain, sustain, and advance in employment. Prepares students for career success. Variable Hours: 11-16 hours.

**Corequisites:** Program specific CWE course

ONL LCT	<b>CWE-281-03</b>	<b>325122</b>			
	M. LAFORCE	\$0.00	\$0.00	\$0.00	\$0.00
	Restricted to Water & Environmental Technology students. Contact: laforce@clackamas.edu or 503-594-3148.				
ONL LCT	<b>CWE-281-05</b>	<b>325123</b>			
	J. MILLER	\$0.00	\$0.00	\$0.00	\$0.00
	Required: Student Petition. Restricted to Computer Science students. Contact: jen.miller@clackamas.edu or 503-594-3138.				
ONL LCT	<b>CWE-281-06</b>	<b>325124</b>			
	J. STAPLETON	\$0.00	\$0.00	\$0.00	\$0.00

**Criminal Justice**

For more information on Criminal Justice, Corrections, credit for completion of D.P.S.S.T. or law enforcement academies contact Sharron Furno at [sharron.furno@clackamas.edu](mailto:sharron.furno@clackamas.edu) or 503-594-6224.

**CJA-101 CRIMINOLOGY, 4 CREDITS**

Examines the social problem of crime, including the process of making and breaking laws as well as society's reaction to the phenomenon. Provides a multidisciplinary study of the causes of crime, including its distribution across social strata and demographics. Focuses on theories of criminal behavior and specific types of crime.

HAR LCT	<b>CJA-101-01</b>	<b>325107</b>	<b>T</b>	<b>1-2:50 PM</b>	
	TBA	\$492.00	\$52.00	\$0.00	\$544.00
ONL LCT	<b>CJA-101-02</b>	<b>325108</b>			
	TBA	\$492.00	\$52.00	\$0.00	\$544.00

**CJA-110 INTRODUCTION TO LAW ENFORCEMENT, 3 CREDITS**

Explores theories, philosophies, and concepts of American law enforcement. This course also examines the history of law enforcement, specific components of the system, public safety responses, and the professionals charged with peace keeping.

HAR HYB	<b>CJA-110-01</b>	<b>325109</b>	<b>T</b>	<b>6-7:20 PM</b>	
	J. JONES	\$369.00	\$39.00	\$0.00	\$408.00

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	Instructor		Tuition	Fee	Crs. Fee	

**CJA-122 CRIMINAL LAW, 4 CREDITS**

This course examines the elements, purpose and functions of criminal, traffic, juvenile and liquor laws. Studies historical development, philosophy of law, and constitutional provisions. Examines definition and classification of crime, application of administration of justice, legal research, study of case law, methodology and concepts of law as a social force.

HAR	<b>CJA-122-01</b>	<b>325110 W</b>			<b>6-9:20 PM</b>	
	S. HEALY	\$492.00	\$52.00	\$0.00		\$544.00
ONL LCT	<b>CJA-122-02</b>	<b>325111</b>				
	W. BABST	\$492.00	\$52.00	\$0.00		\$544.00

**CJA-206 TRAUMA INFORMED PRACTICES, 3 CREDITS**

In this course, students will learn how to recognize and respond to the impact of traumatic stress. Students will gain knowledge and skills they can infuse into their practices and act in a way that maximizes physical and psychological safety for clients and themselves. Students will understand how trauma impacts the brain, body, as well as development. Topics such as vicarious trauma, cultural trauma, and secondary trauma will be examined and discussed.

**Recommended Prerequisites:** CJA-101 or HS-100 or any other 100-level course that discusses human behavior, development, or social interactions

ONL LCT	<b>CJA-206-01</b>	<b>325112</b>				
	J. CRAWFORD	\$369.00	\$39.00	\$0.00		\$408.00

**CJA-210 CRIMINAL INVESTIGATION I, 3 CREDITS**

Introduces the history, theory and principles of criminal investigation in the criminal justice system. Describes crime scene investigation and courtroom aspects of crime scenes including interviews, evidence, follow-up, case preparation, and investigative techniques.

**Prerequisites:** CJA-110 with a C or better

ONL LCT	<b>CJA-210-01</b>	<b>325113</b>				
	W. BABST	\$369.00	\$39.00	\$0.00		\$408.00

**CJA-214 INTIMATE PARTNER VIOLENCE, 3 CREDITS**

This course will analyze the historical, social, legal, and psychological aspects of Intimate Partner Violence. Includes definitions of the problem, demographics, survivors, perpetrators, children who witness, strategies and tactics of abuse and survival, and core strategies for legal intervention.

**Prerequisites:** CJA-203 or HS-100

HAR HYB LCT	<b>CJA-214-01</b>	<b>325114 T</b>			<b>3-4:20 PM</b>	
	J. CRAWFORD	\$369.00	\$39.00	\$0.00		\$408.00

**CJA-223 CRIMINAL JUSTICE ETHICS, 3 CREDITS**

Surveys common ethical frameworks and then examines ethical issues, questions, challenges and consequences facing criminal justice professionals, including law enforcement, corrections, the courts and others.

HAR	<b>CJA-223-01</b>	<b>325115 TH</b>			<b>6-7:50 PM</b>	
	J. JONES	\$369.00	\$39.00	\$0.00		\$408.00

**CJA-252 INTRODUCTION TO RESTORATIVE JUSTICE, 3 CREDITS**

Provides a critical introduction to restorative justice. Covers fundamental values and principles of restorative justice, and the experience and interests of key stakeholders (victims, offenders, communities, and systems).

ONL LCT	<b>CJA-252-01</b>	<b>325116</b>				
	J. CRAWFORD	\$369.00	\$39.00	\$0.00		\$408.00

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	Instructor		Tuition	Fee	Crs. Fee	

**CJA-280 CRIMINAL JUSTICE/CORRECTIONS/CWE, 2-6 CREDITS**

Cooperative work experience. Supervised experience in criminal justice, corrections, juvenile corrections, or related occupations. Variable Credit: 2-6 credits. May be repeated for up to 6 credits. Required: Student Petition.

**Prerequisites:** CJA-170

**Corequisites:** CWE-281

ONL LCT	<b>CJA-280-01</b>	<b>325117</b>				
	J. CRAWFORD	\$738.00	\$78.00	\$45.00		\$861.00V
	Required: Student Petition. Corequisite: Take 1 of the following CWE-281-06.					

**CJA-281 CRIMINAL JUSTICE/CORRECTIONS/CWE, 2-6 CREDITS**

Cooperative work experience. Supervised experience in criminal justice, corrections, juvenile corrections, or related occupations. Variable Credit: 2-6 credits. May be repeated for up to 6 credits. Required: Student Petition.

**Prerequisites:** CJA-170 and CJA-280

**Corequisites:** CWE-281

ONL LCT	<b>CJA-281-01</b>	<b>325118</b>				
	J. CRAWFORD	\$738.00	\$78.00	\$45.00		\$861.00V
	Required: Student Petition. Corequisite: Take the following CWE-281-06.					

**Dental Assistant**

For more information, contact Health Sciences at [healthsciences@clackamas.edu](mailto:healthsciences@clackamas.edu)

**DA-101 DENTAL RADIOLOGY I, 2 CREDITS**

Introduction to history and principles of dental radiology, terminology, and basic physics associated with x-rays, biological effects of x-rays, anatomical landmarks and infection control. Required: Student Petition.

**Required:** Acceptance into Dental Assistant program

**Corequisites:** DA-101L

HAR	<b>DA-101-01</b>	<b>325125 M</b>			<b>9:15 -11:05 AM</b>	
					<b>M</b>	
	K. HIATT	\$246.00	\$26.00	\$175.00		\$447.00
	Required: Student Petition. First week's class (9/26) will meet from 10:15-12:05pm.					

**DA-101L DENTAL RADIOLOGY I LAB, 1 CREDIT**

This course covers practical instruction in radiation health and safety, types of films, film holders, processing and mounting of dental films, use of x-ray equipment, infection control techniques, disposal of hazardous waste. Introduces the use of digital radiation. All exposure techniques performed on x-ray manikins. Required: Student Petition.

**Required:** Acceptance into Dental Assistant program

**Corequisites:** DA-101

HAR HYB	<b>DA-101L-01</b>	<b>325126 F</b>			<b>9-11:50 AM</b>	
	M. BUTKOVICH	\$123.00	\$13.00	\$0.00		\$136.00
	K. HIATT Required: Student Petition.					
HAR HYB	<b>DA-101L-02</b>	<b>325127 F</b>			<b>1-3:50 PM</b>	
	M. BUTKOVICH	\$123.00	\$13.00	\$0.00		\$136.00
	K. HIATT Required: Student Petition.					

**DA-104 CLINICAL PROCEDURES I, 2 CREDITS**

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Discussion in the practice of patient care including the collection of patient medical and dental histories and maintenance of accurate treatment records. Explores the history of dentistry, dental ethics, law, and HIPAA. The dental healthcare team, dental office design and the dental profession will also be discussed. Required: Student Petition.

**Required:** Acceptance into Dental Assistant program

**Corequisites:** DA-104L

HAR HYB	<b>DA-104-01</b>	<b>325128 TH</b>			<b>12-12:50 PM</b>	
	K. HIATT		\$246.00	\$26.00	\$225.00	\$497.00
	Required: Student Petition.					

**DA-104L CLINICAL PROCEDURES I LAB, 1 CREDIT**

This course prepares the student for basic chairside assisting and general procedures. Application of essential skills in seating and dismissing patients, ergonomics, taking and recording vital signs, and infection control are taught and practiced in a dental laboratory setting. Required: Student Petition.

**Required:** Acceptance into Dental Assistant program

**Corequisites:** DA-104

HAR HYB	<b>DA-104L-01</b>	<b>325129 TH</b>			<b>9-11:50 AM</b>	
	S. MOISE		\$123.00	\$13.00	\$0.00	\$136.00
	Required: Student Petition.					

HAR HYB	<b>DA-104L-02</b>	<b>325130 TH</b>			<b>1-3:50 PM</b>	
	K. HIATT		\$123.00	\$13.00	\$0.00	\$136.00
	Required: Student Petition.					

**DA-107 DENTAL MATERIALS I, 2 CREDITS**

This course is an in-depth level of instruction in the composition and manipulation of dental restorative materials, and dental cements. Examination of general dentistry and chairside assisting with direct permanent restorations such as amalgam and composite will also be covered. Required: Student Petition.

**Required:** Acceptance into Dental Assistant program

**Corequisites:** DA-107L

HAR HYB	<b>DA-107-01</b>	<b>325131 T</b>			<b>12-12:50 PM</b>	
	K. HIATT		\$246.00	\$26.00	\$260.00	\$532.00
	Required: Student Petition. Flipped classroom. Meets via Zoom for one hour a week.					

**DA-107L DENTAL MATERIALS I LAB, 1 CREDIT**

This course covers the application of the essential skills necessary in assisting with amalgam and composite restorations. Covers tray-set-ups, pre and post-operative instructions, instrument transfer, and oral evacuation with amalgam and composite procedures. The identification and application of dental cements used in general dentistry will also be covered. Includes manipulation, storage and disposal of hazardous dental materials and cements. Required: Student Petition.

**Required:** Acceptance into Dental Assistant program

**Corequisites:** DA-107

HAR HYB	<b>DA-107L-01</b>	<b>325132 T</b>			<b>9-11:50 AM</b>	
	M. BUTKOVICH		\$123.00	\$13.00	\$0.00	\$136.00
	Required: Student Petition.					

HAR HYB	<b>DA-107L-02</b>	<b>325133 T</b>			<b>1-3:50 PM</b>	
	M. BUTKOVICH		\$123.00	\$13.00	\$0.00	\$136.00
	Required: Student Petition.					

**DA-110 CLINICAL PRACTICUM I, 1 CREDIT**

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

Clinical practicum begins in the seventh week of class. Students begin to apply basic dental assisting procedures taught in weeks one through six. OSHA, hazard communication and infection control are followed for student and patient safety. A minimum of 8 supervised unpaid hours per week is required for term one practicum. Students will participate in one seminar held prior to clinical practicum. Required: Student Petition.

**Required:** Acceptance into Dental Assistant program

HAR HYB	<b>DA-110-01</b>	<b>325134 W</b>			<b>8-5:00 PM</b>	
		<b>W</b>			<b>9-12:50 PM</b>	
	K. HIATT		\$123.00	\$13.00	\$125.00	\$261.00
	Required: Student Petition. Meets: 11/8, 11/15, 11/22, 11/29, 12/9. Mandatory meeting - Wednesday, October 18th, 2023 from 9 AM - 12:50 PM in H320 on the Harmony Campus.					

**DA-115 DENTAL SCIENCE, 2 CREDITS**

Introduction and general study of anatomy, physiology, and oral pathology. An in-depth level course of study in oral anatomy, histology and embryology. Introduction to charting will also be covered. Required: Student Petition.

**Required:** Acceptance into Dental Assistant program

ONL	<b>DA-115-01</b>	<b>325135</b>				
	R. MASCARENHAS		\$246.00	\$26.00	\$125.00	\$397.00
	Required: Student Petition. In-person orientation on Monday, 9/25 from 9-10 AM.					

**DA-125 DENTAL INFECTION CONTROL, 2 CREDITS**

This course covers the introduction and general study of microbiology, major groups of microorganisms, viral and bacterial diseases. Disease transmission, infection prevention, disinfection and instrument processing techniques will also be covered. An in-depth level of the Bloodborne Pathogens Standards and Hazard Communication will be taught and integrated throughout the didactic, preclinical, laboratory and clinical course of study. Required: Student Petition.

**Required:** Acceptance into Dental Assistant program

HAR HYB	<b>DA-125-01</b>	<b>325136 M</b>			<b>8-9:00 AM</b>	
	R. MASCARENHAS		\$246.00	\$26.00	\$40.00	\$312.00
	Required: Student Petition. Flipped classroom. Meets via Zoom for one hour per week.					

**Digital Media Communications**

**DMC-100 INTRODUCTION TO MEDIA ARTS, 3 CREDITS**

Presents an overview of career opportunities in the media industry. Introduces basic principles common to success in the media industry, common media industry entrance strategies, health and safety best practices and the history of the industry from film to online media. In addition, this course will cover basic theories behind what shapes and drives the media industry.

OC LCT	<b>DMC-100-01</b>	<b>325101 MW</b>			<b>2-3:50 PM</b>	
	T. WASSON		\$369.00	\$39.00	\$30.00	\$438.00

**DMC-104 DIGITAL VIDEO EDITING, 4 CREDITS**

Students will utilize video editing skills. These skills will include logging and capturing raw video, assembly of shots on a time line, and the use of effects in the creation of a final video sequence. Along with text generation, audio balancing, audio sweetening and video compositing, this course will offer students an in-depth overview of the video editing process. Course will explore the history of film editing and the theory behind various forms of film and video editing. Lab component included.

**Recommended Prerequisites:** WRD-090 or placement in WR-121Z

**Campus Locations:**

**HAR:** Harmony Community Campus  
**OC:** Oregon City Campus  
**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

**Distance Education Notification:**

**ONL:** Online Only  
**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

**Other Coding Translations:**

**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español

**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	
OC LCT	<b>DMC-104-01</b> 325770 TTH				1-3:50 PM	
	D. MATZA		\$492.00	\$52.00	\$106.00	\$650.00

**DMC-106 ANIMATION & MOTION GRAPHICS I, 4 CREDITS**

Introduction to the fundamentals of animation and motion graphics design. This project-based course will explore experimental and new technological approaches to creating digital effects and animation for video and web-based applications. Students will learn the basics of industry standard 3D and compositing software to create successful VFX, 3D Animation, and Motion Graphics projects.

**Recommended Prerequisites:** ART-225 and DMC-104

OC LCT	<b>DMC-106-01</b> 325772 TTH				9-11:50 AM	
	T. WASSON		\$492.00	\$52.00	\$106.00	\$650.00

**DMC-109 INTRODUCTION TO STOP MOTION ANIMATION, 4 CREDITS**

Introduces basic stop motion animation tools, materials, techniques and elements of storyboarding, scripting, narrative development, compositing, special effects and audio integration into a final group film. Assignments include character development, rigging, set creation, photography, video compositing, and audio recording and synching. Uses digital cameras and industry-standard stop motion software.

**Recommended Prerequisites:** DMC-106 and ART-225

OC LCT	<b>DMC-109-01</b> 329253 MW				1-3:50 PM	
	T. WASSON		\$492.00	\$52.00	\$106.00	\$650.00

**DMC-147 MUSIC, SOUND & MOVIE MAKING, 1 CREDIT**

Presents the basic components of designing, shooting, recording audio, and post production of movies as well as the history and theory that has led to contemporary film production.

oc	<b>DMC-147-01</b> 325102 F				6:30 -8:50 PM	
	S				9-5:50 PM	
	B. ROSE		\$123.00	\$13.00	\$99.00	\$235.00
	Meets: 10/20 & 10/21.					

**DMC-247 SOUND FOR MEDIA, 3 CREDITS**

Introduction to sound as related to film making, animation, and video games. Students will have the opportunity to create and assemble sound for media into a finished product. Explores the basic components of commercial film/video, animation, and game production as they relate to sound.

**Recommended:** Experience using a DAW (Digital Audio Workstation) or video editing software

OC LCT	<b>DMC-247-01</b> 325103 W				3-5:50 PM	
	B. ROSE		\$369.00	\$39.00	\$99.00	\$507.00

**DMC-264 DIGITAL FILMMAKING, 4 CREDITS**

Explores the process of translating a written script into a digital film via pre-production, lighting, shooting, and post-video production.

**Recommended Prerequisites:** WRD-090 or placement in WRD-098, WRD-098 or placement in WR-121Z, or Student Petition

OC LCT	<b>DMC-264-01</b> 325773 MW				9-11:50 AM	
	J. PEREZ		\$492.00	\$52.00	\$106.00	\$650.00

**DMC-280 DIGITAL MEDIA COMMUNICATIONS/CWE, 3-6 CREDITS**

Cooperative work experience. Provides students with on-the-job work experience in the field of media studies. Variable Credit: 3-6 credits. Required: Student Petition.

**Corequisites:** CWE-281

**Campus Locations:**  
**HAR:** Harmony Community Campus  
**OC:** Oregon City Campus  
**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

**Distance Education Notification:**  
**ONL:** Online Only  
**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

**Other Coding Translations:**  
**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	
ONL	<b>DMC-280-02</b> 325776					
	T. WASSON		\$738.00	\$78.00	\$45.00	\$861.00V
	Required: Student Petition.					

**Economics**

**EC-201 PRINCIPLES OF ECONOMICS: MICRO, 4 CREDITS**

Focuses on microeconomic theory dealing with the behavior of individuals and profit-maximizing firms in market structures with varying degrees of competition. Coverage includes price theory, international trade, consumer behavior, the theory of the firm, and the potential role of government in affecting market outcomes.

**Prerequisites:** MTH-020 or placement in MTH-098

**Prerequisite or Corequisite:** WRD-098 or placement in WR-121Z

OC LCT	<b>EC-201-01</b> 325724 TTH				1-2:50 PM	
	D. LOUGEE		\$492.00	\$52.00	\$0.00	\$544.00
	Online textbook provided first day.					

ONL LCT	<b>EC-201-02</b> 325729					
	D. LOUGEE		\$492.00	\$52.00	\$0.00	\$544.00
	Online textbook provided first day.					

HAR HYB	<b>EC-201-30</b> 329279 W				6-7:50 PM	
	D. LOUGEE		\$492.00	\$52.00	\$0.00	\$544.00
	Online textbook provided first day.					

**EC-202 PRINCIPLES OF ECONOMICS: MACRO, 4 CREDITS**

Introduction to economic theory, policy, and institutions. Focuses on macroeconomic theory, money, unemployment, inflation, fiscal and monetary policies, international finance, and economic growth.

**Prerequisites:** MTH-020 or placement in MTH-050 or MTH-060

**Prerequisite or Corequisite:** WRD-098 or placement in WR-121Z

OC LCT	<b>EC-202-01</b> 325730 TTH				10-11:50 AM	
	D. LOUGEE		\$492.00	\$52.00	\$0.00	\$544.00
	Online textbook provided first day.					

ONL LCT	<b>EC-202-02</b> 325735					
	D. LOUGEE		\$492.00	\$52.00	\$0.00	\$544.00
	Online textbook provided first day.					

WILS HYB	<b>EC-202-15</b> 329280 TH				6-7:50 PM	
	M. WISMER		\$492.00	\$52.00	\$0.00	\$544.00

**Education**

**ECE-150 INTRODUCTION TO EARLY CHILDHOOD EDUCATION & FAMILY STUDIES, 4 CREDITS**

Focuses on the history of early childhood education and the prominent theorists that have significantly contributed to the field. The types of programs that serve young children, birth-age 8, and their families will be examined. State and national standards in early childhood education and family studies will be explored.

ONL	<b>ECE-150-01</b> 328971					
	D. GLASCOCK		\$492.00	\$52.00	\$0.00	\$544.00

**ECE-150ES INTRODUCCIÓN A LA EDUCACIÓN INFANTIL Y LOS ESTUDIOS FAMILIARES, 4 CREDITS**

Este curso se enfoca en la historia de la educación infantil y los teóricos más importantes que han contribuido significativamente al campo. Se examinarán los tipos de programas que atienden a niños pequeños, desde el nacimiento hasta los 8 años, y sus familias. Se explorarán los estándares estatales y nacionales en educación infantil y estudios familiares.

Course No	Course Title, Credits	Section No	Crns Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
REM LCT ESPAÑOL	ECE-150ES-01 325739 W				6-7:50 PM	
	B. MARRON		\$492.00	\$52.00	\$0.00	\$544.00
	La clase se reúne cinco Martes por Zoom (9/27, 10/11, 10/25, 11/15, 11/29 de 6:00PM a 7:50 PM).					

**ECE-154ES DESARROLLO DEL LENGUAJE Y LA ALFABETIZACIÓN, 4 CREDITS**

Se centra en el desarrollo del lenguaje y la alfabetización de los niños desde el nacimiento hasta tercer grado. Se examinarán las bases de la investigación y los componentes del desarrollo del lenguaje y la alfabetización. Se explorarán los criterios para seleccionar literatura infantil de calidad. Se enfatizarán estrategias prácticas para promover un desarrollo óptimo.

REM LCT ESPAÑOL	ECE-154ES-01 325741 M					
	B. MARRON		\$492.00	\$52.00	\$0.00	\$544.00
	La clase se reúne cinco Lunes por Zoom (9/25, 10/9, 10/23, 11/06, y 11/20 de 6:00PM a 7:50PM).					

**ECE-179ES EL PROFESIONAL EN EDUCACIÓN INFANTIL, 4 CREDITS**

Se enfoca en el rol del profesional en Educación Infantil (ECE) y se explorará los estándares y competencias profesionales de NAEYC para maestros de la primera infancia. Los estudiantes recibirán información sobre el Código de Conducta y Ética profesional de la Asociación Nacional para la Educación de Niños Pequeños así como también la información sobre lo que significa ser un Profesional de ECE y cómo abogar para los niños y las familias.

**Prerequisites:** ECE-121ES, ECE-240ES, ECE-246ES, and ECE-280ES

ONL LCT ESPAÑOL	ECE-179ES-01 329373					
	A. ECHEVARRIA		\$492.00	\$52.00	\$0.00	\$544.00

**ECE-221 OBSERVATION & GUIDANCE II IN ECE SETTINGS, 4 CREDITS**

Designed to help students explore in greater depth the observation and guidance of children from birth-3rd grade within the classroom environment. In this more advanced course, the student focuses on additional observation and guidance techniques for observing groups of children and addresses challenging behaviors and other issues within the early childhood environment. The practitioner's role in using observation to promote their own development and to assist in the development of the children is explored in depth.

**Prerequisites:** ECE-121

OC HYB	ECE-221-01 325743 TH					
	B. KING		\$492.00	\$52.00	\$0.00	\$544.00
	This section will meet in-person from 4:00-5:50 PM on the following Thursdays 9/28, 10/12, 10/26, 11/9, 11/30.					

**ECE-221ES OBSERVACIÓN Y ORIENTACIÓN II EN EDUCACIÓN TEMPRANA, 4 CREDITS**

Diseñado para ayudar a los estudiantes a explorar con mayor profundidad la observación y la orientación de los niños desde el nacimiento hasta el tercer grado dentro del entorno del aula. En este curso más avanzado, el estudiante se enfoca en técnicas adicionales de observación y orientación para observar grupos de niños y aborda comportamientos desafiantes y otros problemas dentro del entorno de la primera infancia. Se explora en profundidad el papel del profesional en el uso de la observación para promover su propio desarrollo y ayudar en el progreso de los niños.

**Prerequisites:** ECE-121ES

Course No	Course Title, Credits	Section No	Crns Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
REM LCT ESPAÑOL	ECE-221ES-01 325744 TH				6-7:50 PM	
	P. ALVARADO		\$492.00	\$52.00	\$0.00	\$544.00
	La clase se reúne cinco Jueves por Zoom (9/28, 10/12, 10/26, 11/9, y 11/30 de 6:00PM a 7:50PM).					

**ECE-241 ENVIRONMENTS AND CURRICULUM PLANNING: INFANTS AND TODDLERS, 3 CREDITS**

Builds upon knowledge and skills learned in ECE-240: Environments and Curriculum Planning. Emphasis is on application of research-based strategies to implement and evaluate early childhood environments and curriculum for children from birth-three years old. Focus is on integrating content knowledge throughout all classroom activities.

OC HYB LCT	ECE-241-01 325747 W					
	D. HENDRICKS		\$369.00	\$39.00	\$0.00	\$408.00
	Meets in-person: 9/27, 10/11, 10/25, 11/8 & 11/29.					

**ECE-241ES AMBIENTES Y PLANIFICACIÓN CURRICULAR PARA BEBÉS Y NIÑOS PEQUEÑOS, 4 CREDITS**

Este curso se enfoca en la aplicación de estrategias basadas en la investigación para implementar y evaluar los entornos y el plan de estudios de la primera infancia para niños desde el nacimiento hasta los tres años de edad. El enfoque está en integrar el conocimiento del contenido en todas las rutinas y experiencias en el aula.

REM LCT ESPAÑOL	ECE-241ES-01 325749 M					
	E. DIAZ SIERRA		\$492.00	\$52.00	\$0.00	\$544.00
	La clase se reúne cinco Lunes por Zoom (10/2, 10/16, 10/30, 11/13, y 11/27 de 6:00PM a 7:50PM).					

**ECE-246ES RELACIONES ENTRE LA ESCUELA, LA FAMILIA Y LA COMUNIDAD, 4 CREDITS**

Este curso se concentra en el conocimiento y las habilidades para trabajar eficazmente con las familias y la comunidad y con otros profesionales en educación infantil (6 semanas de edad hasta tercer grado). El énfasis está en construir y mantener relaciones positivas para fomentar la cooperación y el respeto mutuo entre los profesionales en la primera infancia y las familias de los niños con quienes trabajan.

REM LCT ESPAÑOL	ECE-246ES-01 325751 T					
	B. MARRON		\$492.00	\$52.00	\$0.00	\$544.00
	La clase se reúne cinco Martes por Zoom (9/26, 10/10, 10/24, 11/7, y 12/4 de 6:00 PM to 7:50PM).					

**ECE-280 EARLY CHILDHOOD EDUCATION/CWE, 3 CREDITS**

Cooperative work experience. Provides students with on-the-job experience in the field of early childhood education. Students will work in pre-approved educational settings that serve children from six weeks old through age eight. Required: Student Petition.

**Corequisites:** CWE-281

**Prerequisites:** ECE-121, ECE-150, and ECE-154

REM LCT	ECE-280-01 325753					
	D. GLASCOCK		\$369.00	\$39.00	\$45.00	\$453.00
	Required: Student Petition. Corequisite: Take 1 of the following CWE-281-06.					

**ED-101 INTRO TO EDUCATION PRACTICUM & SEMINAR, 3 CREDITS**

**Campus Locations:**  
**HAR:** Harmony Community Campus  
**OC:** Oregon City Campus  
**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

**Distance Education Notification:**  
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**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

**Other Coding Translations:**  
**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
		Instructor		Tuition	Fee	Crs. Fee

This course introduces students to critical topics associated with the education profession. Each topic will be considered on an introductory level with an understanding that future classes will expand student comprehension and knowledge to a mastery level. Students are also required to participate in a 6 hour per week practicum to provide the opportunity to experience directly the various educational issues discussed in class. Required: Student Petition.

oc	<b>ED-101-01</b>	<b>329258 T</b>				<b>3-3:50 PM</b>
	L. SCOTT	\$369.00	\$39.00	\$0.00		\$408.00
	Required: Student Petition.					

**ED-113 INSTRUCTIONAL STRATEGIES FOR LITERACY, 3 CREDITS**

This course develops an understanding of how to integrate literacy concepts and skills into all subjects. Curriculum design and assessment for Reading and Language Arts concepts and skills are explored, identified, and developed. Emphasis is placed on the role of literacy in the development of the whole student and on linking CTE curriculum to the literacy skills needed for students to be successful in their field. Designed for CTE instructors, but anyone interested in teaching literacy across the curriculum would benefit from this class.

ONL LCT	<b>ED-113-01</b>	<b>325756</b>				
	L. SCOTT	\$369.00	\$39.00	\$35.00		\$443.00
	Online textbook included in section fees.					

**ED-114 INSTRUCTIONAL STRATEGIES FOR MATH, 3 CREDITS**

This course develops an understanding of how to integrate math concepts and skills into Career and Technical Education (CTE) courses and programs. Curriculum design and assessment for math concepts and skills are explored, identified, and developed. Designed for CTE instructors, but anyone interested in bringing more math into their classrooms could benefit from this class. Emphasis is placed on the role of math in the development of the whole student and on linking the CTE curriculum to the mathematics needed for students to be successful in their field.

ONL LCT	<b>ED-114-01</b>	<b>325757</b>				
	TBA	\$369.00	\$39.00	\$0.00		\$408.00

**ED-130 COMPREHENSIVE CLASSROOM MANAGEMENT, 3 CREDITS**

This course focuses on creating positive classroom and school climates, organizing and managing classrooms, improving instruction, dealing with classroom discipline problems, developing individualized plans for students experiencing behavioral problems, and developing school-wide student management programs-characteristics of effective schools and teachers.

ONL LCT	<b>ED-130-01</b>	<b>325758</b>				
	L. SCOTT	\$369.00	\$39.00	\$35.00		\$443.00
	Online textbook included in section fees.					

**ED-216 FOUNDATIONS OF TEACHING & EDUCATION, 4 CREDITS**

Provides an overview of the educational system in the U.S. including historical, legal, and philosophical foundations of education. Explores the financing, governance and organization of education as well as current issues impacting our educational system. Provides an overview of diversity in educational settings and the characteristics and ethical obligations of effective schools and professional educators. Examines career options and pathways in the field of education.

oc	<b>ED-216-01</b>	<b>325760 TTH</b>				<b>10-11:50 AM</b>
	L. SCOTT	\$492.00	\$52.00	\$48.61		\$592.61
	Online textbook included in section fees.					

**Campus Locations:**  
**HAR:** Harmony Community Campus  
**OC:** Oregon City Campus  
**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

**Distance Education Notification:**  
**ONL:** Online Only  
**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
		Instructor		Tuition	Fee	Crs. Fee

ONL	<b>ED-216-02</b>	<b>325763</b>				
	L. SCOTT	\$492.00	\$52.00	\$48.61		\$592.61
	Online textbook included in section fees.					

**ED-220 INTRODUCTION TO CTE IN OREGON, 3 CREDITS**

Provides an introduction to the field of Career and Technical Education (CTE) in Oregon. Examines the historical and legislative foundations of CTE in the United States. Discusses the role of special populations in CTE programs. Provides an overview of high quality CTE programs, CTE licensure preparation, and student organizations. Addresses current trends and issues in the field.

ONL LCT	<b>ED-220-01</b>	<b>325764</b>				
	M. HELZERMAN	\$369.00	\$39.00	\$0.00		\$408.00

**Educational Focus Area**

**EFA-101C INTRODUCTION TO THE CREATIVE ARTS COMMUNICATION AND HUMANITIES, 2 CREDITS**

This course engages students in the creative process of making meaning within the creative arts, communications, and humanities, and invites them to view themselves, others, and the world through story, while discovering academic and career possibilities.

oc	<b>EFA-101C-01</b>	<b>325320 M</b>				<b>4-5:50 PM</b>
	S. MACH	\$246.00	\$26.00	\$25.00		\$297.00

**EFA-101J INTRODUCTION TO THE SOCIAL SCIENCES, HUMAN SERVICES AND CRIMINAL JUSTICE, 2 CREDITS**

Introduces career options and educational pathways in the fields of the Social Sciences, Human Services and Criminal Justice. Explores the history of and current methods and issues in these three areas of learning and service. Students will gain an understanding of academic and career options and get a taste of what further study will look like in each of these three areas and how they relate to one another.

ONL LCT	<b>EFA-101J-01</b>	<b>325323</b>				
	Y. SMITH	\$246.00	\$26.00	\$0.00		\$272.00
	No textbook required.					

**EFA-101S INTRODUCTION TO STEM, 2 CREDITS**

This course will feature activities, demonstrations, and real world experiences in STEM fields, including environmental science, biology, chemistry, geology, physics, engineering, computer science, and mathematics. Students will gain an understanding of academic and career options and get a taste of what further study will look like in each STEM discipline.

REM	<b>EFA-101S-01</b>	<b>325324 TTH</b>				<b>2-2:50 PM</b>
	E. LEE	\$246.00	\$26.00	\$0.00		\$272.00

**Electronics & Microelectronics**

*All degree seeking students should arrange to speak to a faculty advisor prior to registering. Call 503-594-3318 for more information, or contact Advising, 503-594-3475.*

**EET-112 ELECTRONIC EQUIPMENT AND ASSEMBLY I, 1 CREDIT**

This is the first course in a three course sequence. Focus is on building and testing simple DC prototype circuits. Covers DC power supplies, DMMs, breadboarding, resistor codes, and capacitor codes. Spreadsheets will be used to organize and analyze data.

oc	<b>EET-112-01</b>	<b>325777 MW</b>				<b>4:30 -5:20 PM</b>
	W. SELLEVAAG	\$123.00	\$13.00	\$43.50		\$179.50

**Other Coding Translations:**  
**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text



Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
Instructor	Tuition	Fee	Crs. Fee			

**EET-127 SEMICONDUCTOR CIRCUITS I, 2 CREDITS**  
 Introduction to the basic concepts of semiconductor devices. Various types of diodes and diode applications will be studied. Industry standard devices will be used.

**Prerequisites:** EET-142  
**Recommended Prerequisites:** MTH-112Z

oc	EET-127-01	325778 MW			5:30 -7:20 PM	
	W. SELLEVAAG	\$246.00	\$26.00	\$43.50		\$315.50

**EET-137 ELECTRICAL FUNDAMENTALS I, 4 CREDITS**  
 Introduction to the basic concepts of voltage, current, resistance and their relationships in DC circuits. Use SI units, engineering notation and prefixes. Analysis of series, parallel and series-parallel circuits will be made using Ohm's & Kirchhoff's laws.

**Prerequisite or Corequisite:** EET-112 and MTH-095

oc	EET-137-01	325780 MW			12-3:50 PM	
	M. FARRELL	\$492.00	\$52.00	\$174.00		\$718.00

**EET-139 PRINCIPLES OF TROUBLESHOOTING I, 2 CREDITS**  
 Emphasizes theories and practices useful in troubleshooting failures in electrical applications. Focuses on the overall philosophy and strategy of troubleshooting, drawing applications from residential and varied industrial situations. Includes laboratory projects.

**Recommended Prerequisite Or Corequisite:** EET-112, and EET-137 or MFG-130

oc	EET-139-01	325782 TH			5-7:50 PM	
	M. TIZO	\$246.00	\$26.00	\$87.00		\$359.00

**EET-157 DIGITAL LOGIC I, 3 CREDITS**  
 An introduction to digital logic principles, numbering systems & conversions and gate operations. Using principles, circuit analysis will be used to minimize logic networks. Industry standard devices will be used.

**Prerequisite or Corequisite:** EET-112  
**Recommended Prerequisites:** MTH-065

oc	EET-157-01	325785 MW			5:30 -8:20 PM	
	J. FREEMAN	\$369.00	\$39.00	\$43.50		\$451.50

**EET-215 TECHNICAL MECHANICS, 3 CREDITS**  
 Introduction to mechanics. Covers theory of force, work, torque, energy, power, strength, and motion. Vectors and simple machines provide applications for these concepts.

**Prerequisites:** MTH-080 or MTH-112Z or EET-142

oc HYB LCT	EET-215-01	325788 MW			1-3:50 PM	
	M. MATTSON	\$369.00	\$39.00	\$43.50		\$451.50

**EET-239 PRINCIPLES OF TROUBLESHOOTING II, 2 CREDITS**  
 Covers advanced applications of diagnosis, maintenance and repair of systems. Includes preventative maintenance, applied statistical process, and AC/DC motor controls.

**Prerequisites:** EET-139; EET-141 or MFG-131  
**Recommended Prerequisites:** IMT-223

oc	EET-239-01	325791 TH			1-3:50 PM	
	M. FARRELL	\$246.00	\$26.00	\$43.50		\$315.50

**SM-150 SEMICONDUCTOR PROCESSING I, 2 CREDITS**  
 Provides general background knowledge on the processes required to manufacture integrated circuit devices, beginning with silicon material preparation and ending with final assembly and test of a completed device. Micro-contamination is also covered.

**Campus Locations:**  
**HAR:** Harmony Community Campus  
**OC:** Oregon City Campus  
**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

**Distance Education Notification:**  
**ONL:** Online Only  
**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
Instructor	Tuition	Fee	Crs. Fee			

oc	SM-150-01	326167 F			4:30 -6:20 PM	
	W. SELLEVAAG	\$246.00	\$26.00	\$87.00		\$359.00

**SM-280 ELECTRONICS & MICROELECTRONICS/CWE, 1-6 CREDITS**  
 Cooperative work experience. Practical experience in the high-tech industry. Coordination of instruction will occur with industry and the manufacturing and cooperative work departments. Variable Credit: 1-6 credits. Required: Student Petition.

**Corequisites:** CWE-281

ONL	SM-280-01	326168				
	M. MATTSON	\$738.00	\$78.00	\$255.00	\$1,071.00V	
Required: Student Petition. Corequisite: Take 1 of the following CWE-281-06.						

## Emergency Medical Technology

**EMT-101 EMERGENCY MEDICAL TECHNICIAN PART I, 6 CREDITS**  
 This course is the first of a two part series that will prepare students to enter the workforce as an emergency medical service provider. Topics include airway management, patient assessment, and treatment/stabilization for common medical emergencies. Required: Student Petition.

**Prerequisites:** MTH-060 with a C or better or placement in MTH-065  
**Prerequisites:** WRD-098 or placement in WR-121Z  
**Recommended Prerequisites:** EMT-105 and MA-110

HAR HYB	EMT-101-01	325137 TWTH			6-9:20 PM	
	T. SAWZAK	\$738.00	\$78.00	\$400.00	\$1,216.00	
Required: Student Petition. Contact healthsciences@clackamas.edu for enrollment information.						

**EMT-105 INTRODUCTION TO EMERGENCY MEDICAL SERVICES, 3 CREDITS**  
 Introduces the student to Emergency Medical Services (EMS). Examines the career path for paramedics. Explores structure and function of EMS systems. Includes roles and responsibilities, operations, medical-legal consideration, stress management, blood borne pathogens, and other Oregon specific content.

ONL	EMT-105-01	325138				
	T. SAWZAK	\$369.00	\$39.00	\$0.00	\$408.00	

## Engineering

**ENGR-111 INTRODUCTION TO ENGINEERING, 3 CREDITS**  
 Introduction to the basic ideas and tools of the engineering profession. An exploration of career and education options within the field, and the skills needed to achieve career goals. Methods of engineering analysis, design, and problem solving culminating in a design project. The class will cover all facets of engineering design, including background research, requirement specification and prioritization, development, prototype construction, testing, and evaluation for future redesigns.

**Prerequisite or Corequisite:** MTH-112Z or higher

oc	ENGR-111-01	325796 MW			2-3:20 PM	
	E. LEE	\$369.00	\$39.00	\$10.00	\$418.00	
oc	ENGR-111-02	325799 TTH			3-4:20 PM	
	E. LEE	\$369.00	\$39.00	\$10.00	\$418.00	

**ENGR-112 ENGINEERING PROGRAMMING, 3 CREDITS**

**Other Coding Translations:**  
**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor			Tuition	Fee	Crs. Fee

Introduction to basic scientific and engineering computing using MATLAB. Covers methods of engineering analysis, design, and problem solving with computational tools. Emphasis on developing proficiency in writing functions and programs.

**Prerequisite or Corequisite:** MTH-112Z or higher

oc	<b>ENGR-112-01</b>	<b>325801 MW</b>				<b>11-12:20 PM</b>
	E. LEE	\$369.00	\$39.00	\$15.00		\$423.00

**ENGR-211 STATICS, 4 CREDITS**

First term of engineering mechanics sequence. This course focuses on the study of force systems acting on articles or rigid bodies under equilibrium conditions.

**Prerequisites:** MTH-252

**Prerequisite or Corequisite:** PH-211

oc	<b>ENGR-211-01</b>	<b>325804 MW</b>				<b>4-5:50 PM</b>
	E. LEE	\$492.00	\$52.00	\$20.00		\$564.00

**ENGR-221 ELECTRICAL CIRCUIT ANALYSIS I, 4 CREDITS**

Designed to give the student a thorough understanding of basic electrical circuit theory, this course covers voltage and current relationships and fundamental methods of circuit analysis. Electrical circuit parameters such as resistance, inductance, and capacitance will be examined through theory and laboratory experiments.

**Corequisites:** ENGR-221L

**Prerequisites:** MTH-252

oc	<b>ENGR-221-01</b>	<b>325807 T</b>				<b>9-11:50 AM</b>
	M. FARRELL	\$492.00	\$52.00	\$52.00		\$596.00

**ENGR-221L ELECTRICAL CIRCUIT ANALYSIS I LAB, 0 CREDIT**

Lab Course for ENGR-221. Must be taken concurrently with ENGR-221.

**Corequisites:** ENGR-221

oc	<b>ENGR-221L-01</b>	<b>325810 TH</b>				<b>9-11:50 AM</b>
	M. FARRELL	\$0.00	\$0.00	\$0.00		\$0.00

**English for Speakers of Other Languages**

**ESOL-012 BEGINNING ESOL, 0 CREDIT**

English language learners speak and listen to simple words, phrases, questions, statements and commands using common English vocabulary in simple, highly-structured tasks. Variable Hours: 48-66 hours. Required: Student Petition.

OC LCT	<b>ESOL-012-01</b>	<b>325379 MW</b>				<b>9-11:50 AM</b>
	TBA	\$0.00	\$0.00	\$60.00		\$60.00
	Required: Student Petition.					
HAR LCT	<b>ESOL-012-06</b>	<b>325380 MW</b>				<b>6-8:50 PM</b>
	TBA	\$0.00	\$0.00	\$60.00		\$60.00
	Required: Student Petition.					
HAR	<b>ESOL-012-07</b>	<b>325381 MW</b>				<b>6-8:50 PM</b>
	TBA	\$0.00	\$0.00	\$60.00		\$60.00
	Required: Student Petition.					

**ESOL-015 BEGINNING READING, WRITING, AND GRAMMAR, 0 CREDIT**

English language learners are introduced to the basic language necessary to function in day-to-day American society; language functions are taught in the contexts of work, family and community. Required: Student Petition.

**Campus Locations:**  
**HAR:** Harmony Community Campus  
**OC:** Oregon City Campus  
**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

**Distance Education Notification:**  
**ONL:** Online Only  
**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

**Other Coding Translations:**  
**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor			Tuition	Fee	Crs. Fee

OC LCT	<b>ESOL-015-01</b>	<b>325383 T</b>				<b>9-11:50 AM</b>
						<b>9-10:50 AM</b>
						<b>10:30 -11:50 AM</b>
	TBA	\$0.00	\$0.00	\$60.00		\$60.00
	Required: Student Petition.					

HAR LCT	<b>ESOL-015-06</b>	<b>325384 T</b>				<b>6-8:50 PM</b>
						<b>6-7:30 PM</b>
						<b>7:30 -8:50 PM</b>
	TBA	\$0.00	\$0.00	\$60.00		\$60.00
	Required: Student Petition.					

**ESOL-020 UPPER BEGINNING GRAMMAR, 0 CREDIT**

English language learners study and practice basic verb forms (simple present and present progressive), and adverbs of frequency in written and spoken English. Required: Student Petition.

oc	<b>ESOL-020-01</b>	<b>325385 MW</b>				<b>10:30 -11:50 AM</b>
	L. JOYCE	\$0.00	\$0.00	\$30.00		\$30.00
	Required: Student Petition.					

HAR LCT	<b>ESOL-020-06</b>	<b>325386 MW</b>				<b>7:30 -8:50 PM</b>
	TBA	\$0.00	\$0.00	\$30.00		\$30.00
	Required: Student Petition.					

**ESOL-024 UPPER BEGINNING READING & WRITING, 0 CREDIT**

English language learners read short texts to improve reading skills, write simple, compound, and complex sentences, and write related sentences in paragraph form for the contexts of school, work, family and community. Required: Student Petition.

OC LCT	<b>ESOL-024-01</b>	<b>325387 TTH</b>				<b>9-11:50 AM</b>
	TBA	\$0.00	\$0.00	\$60.00		\$60.00
	Required: Student Petition.					

HAR LCT	<b>ESOL-024-06</b>	<b>325388 T</b>				<b>6-8:50 PM</b>
						<b>6-7:20 PM</b>
						<b>7:20 -8:50 PM</b>
	TBA	\$0.00	\$0.00	\$60.00		\$60.00
	Required: Student Petition.					

**ESOL-030 INTERMEDIATE GRAMMAR A, 0 CREDIT**

One of a two-part series. English language learners study and practice simple present, present progressive, and future verb forms and modals of ability, permission, and advice. Required: Student Petition.

OC LCT	<b>ESOL-030-01</b>	<b>325389 MW</b>				<b>10:30 -11:50 AM</b>
	S. MUNRO	\$0.00	\$0.00	\$30.00		\$30.00
	Required: Student Petition.					

HAR LCT	<b>ESOL-030-06</b>	<b>325390 MW</b>				<b>7:30 -8:50 PM</b>
	TBA	\$0.00	\$0.00	\$30.00		\$30.00
	Required: Student Petition.					

**ESOL-032 INTERMEDIATE CONVERSATION 1, 0 CREDIT**

English language learners study and practice speaking and listening skills and strategies in structured tasks to improve fluency in the contexts of school, work, family and community. One of a 2-part series. Required: Student Petition.

oc	<b>ESOL-032-01</b>	<b>325391 MW</b>				<b>9-10:20 AM</b>
	TBA	\$0.00	\$0.00	\$30.00		\$30.00
	Required: Student Petition.					

HAR	<b>ESOL-032-06</b>	<b>325392 MW</b>				<b>6-7:20 PM</b>
	TBA	\$0.00	\$0.00	\$30.00		\$30.00
	Required: Student Petition.					

**ESOL-034 INTERMEDIATE READING & WRITING, 0 CREDIT**

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

English language learners read a variety of texts to improve reading skills, and write paragraphs focused on a single topic developed with logically organized facts and details for the contexts of school, work, family and community. Required: Student Petition.

OC LCT	<b>ESOL-034-01</b>	<b>325393</b>	<b>TTH</b>		<b>9-11:50 AM</b>	
	TBA	\$0.00	\$0.00	\$60.00	\$60.00	
	Required: Student Petition.					
REM LCT	<b>ESOL-034-06</b>	<b>325394</b>	<b>TTH</b>		<b>6-8:50 PM</b>	
	TBA	\$0.00	\$0.00	\$60.00	\$60.00	
	Required: Student Petition.					

**ESOL-042 UPPER INTERMEDIATE CONVERSATION I, 0 CREDIT**

English language learners study and practice speaking and listening skills and strategies for independent communication to improve fluency in the contexts of school, work, family and community. One of a 2-part series. Required: Student Petition.

oc	<b>ESOL-042-01</b>	<b>325396</b>	<b>MW</b>		<b>9-10:20 AM</b>	
	S. MUNRO	\$0.00	\$0.00	\$30.00	\$30.00	
	Required: Student Petition.					
HAR	<b>ESOL-042-06</b>	<b>325397</b>	<b>MW</b>		<b>6-7:20 PM</b>	
	TBA	\$0.00	\$0.00	\$30.00	\$30.00	
	Required: Student Petition.					

**ESOL-044 UPPER INTERMEDIATE READING & WRITING, 0 CREDIT**

English language learners read a variety of texts to improve reading skills, and produce basic multi-paragraph texts for the contexts of school, work, family and community. Required: Student Petition.

oc	<b>ESOL-044-01</b>	<b>325398</b>	<b>TTH</b>		<b>9-11:50 AM</b>	
	TBA	\$0.00	\$0.00	\$60.00	\$60.00	
	Required: Student Petition.					

**ESOL-046 EDITING FOR BETTER WRITING, 0 CREDIT**

English language learners improve their writing through editing. They also engage in extended reading to provide a context for writing. Required: Student Petition.

oc	<b>ESOL-046-01</b>	<b>325399</b>	<b>TTH</b>		<b>9-11:50 AM</b>	
	K. LONG	\$0.00	\$0.00	\$60.00	\$60.00	
	Required: Student Petition.					
REM LCT	<b>ESOL-046-06</b>	<b>325400</b>	<b>TTH</b>		<b>6-8:50 PM</b>	
	K. LONG	\$0.00	\$0.00	\$60.00	\$60.00	
	Required: Student Petition.					

**ESOL-051 ADVANCED GRAMMAR B, 0 CREDIT**

One of a three-part series. English language learners study and practice count/non-count nouns, definite/indefinite articles, and noun clauses in written and spoken English. Required: Student Petition.

oc	<b>ESOL-051-01</b>	<b>329371</b>	<b>MW</b>		<b>10:30 -11:50 AM</b>	
	K. LONG	\$0.00	\$0.00	\$30.00	\$30.00	
	Required: Student Petition.					
HAR	<b>ESOL-051-06</b>	<b>329370</b>	<b>MW</b>		<b>7:30 -8:50 PM</b>	
	TBA	\$0.00	\$0.00	\$30.00	\$30.00	
	Required: Student Petition.					

**ESOL-052 ADVANCED COMMUNICATION SKILLS 1, 0 CREDIT**

English language learners practice speaking and listening strategies for effective communication in discussions, presentations, lectures, note-taking, and group projects. The course builds vocabulary, critical thinking skills, and an awareness of non-verbal communication. The focus of this course is to prepare students for college success. Required: Student Petition.

**Campus Locations:**  
**HAR:** Harmony Community Campus  
**OC:** Oregon City Campus  
**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

**Distance Education Notification:**  
**ONL:** Online Only  
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**Other Coding Translations:**  
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**ESPAÑOL:** Enseñado en español  
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Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

OC LCT	<b>ESOL-052-01</b>	<b>325404</b>	<b>MW</b>		<b>9-10:20 AM</b>	
	TBA	\$0.00	\$0.00	\$30.00	\$30.00	
	Required: Student Petition.					

HAR LCT	<b>ESOL-052-06</b>	<b>325405</b>	<b>MW</b>		<b>6-7:20 PM</b>	
	TBA	\$0.00	\$0.00	\$30.00	\$30.00	
	Required: Student Petition.					

**ESOL-054 ADVANCED READING & WRITING, 0 CREDIT**

English language learners develop writing skills including summarizing, response writing, and paraphrasing, and improve writing fluency. Develop reading skills and fluency through reading a range of texts on a variety of topics. Required: Student Petition.

OC LCT	<b>ESOL-054-01</b>	<b>325406</b>	<b>TTH</b>		<b>9-11:50 AM</b>	
	S. MUNRO	\$0.00	\$0.00	\$60.00	\$60.00	
	Required: Student Petition.					

REM LCT	<b>ESOL-054-06</b>	<b>325407</b>	<b>TTH</b>		<b>6-8:50 PM</b>	
	L. JOYCE	\$0.00	\$0.00	\$60.00	\$60.00	
	Required: Student Petition.					

**ESOL-060 VOCABULARY BUILDING 1, 0 CREDIT**

One of a two-part series. English language learners develop their passive and active vocabularies through numerous exposures to selected words from the General Service List and the Academic Word List, and develop their vocabulary acquisition skills. Required: Student Petition.

OC LCT	<b>ESOL-060-01</b>	<b>325408</b>	<b>MW</b>		<b>12:30 -1:50 PM</b>	
	A. VERGUN	\$0.00	\$0.00	\$30.00	\$30.00	
	Required: Student Petition.					

**ESOL-062 ESOL READING, 0 CREDIT**

English language learners at all levels improve their reading fluency and expand and solidify their English vocabulary as needed for more advanced ESOL and everyday life. Required: Student Petition.

OC LCT	<b>ESOL-062-01</b>	<b>325409</b>	<b>MW</b>		<b>12:30 -1:50 PM</b>	
	TBA	\$0.00	\$0.00	\$30.00	\$30.00	
	Required: Student Petition.					

**ESOL-082 ASSESS/EVALUATE NEW STUDENTS, 0 CREDIT**

New students in the ESOL program receive information about classes offered, departmental and college policies, college services available, campus facilities, student responsibilities, and community resources. Students are tested to determine their language levels and class placement. Required: Student Petition.

OC LCT	<b>ESOL-082-01</b>	<b>325410</b>	<b>TBA</b>			
	A. VERGUN	\$0.00	\$0.00	\$0.00	\$0.00	
	Required: Student Petition.					

HAR LCT	<b>ESOL-082-06</b>	<b>325411</b>	<b>TBA</b>			
	A. VERGUN	\$0.00	\$0.00	\$0.00	\$0.00	
	Required: Student Petition.					

**ESOL-083 EDUCATIONAL PLANNING FOR RETURNING STUDENTS, 0 CREDIT**

Designed for returning students in the ESOL program at CCC. Students meet with their instructors to review their progress, revisit their goals, register for classes, and learn how to transition to other educational and training opportunities at the college and in other community programs. Required: Student Petition.

OC LCT	<b>ESOL-083-01</b>	<b>325412</b>	<b>TBA</b>			
	A. VERGUN	\$0.00	\$0.00	\$0.00	\$0.00	
	Required: Student Petition.					

Course No	Course Title, Credits						Course No	Course Title, Credits					
	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total		Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total		
	Instructor		Tuition	Fee	Crs. Fee		Instructor		Tuition	Fee	Crs. Fee		
HAR LCT	<b>ESOL-083-06</b>	<b>325413</b>	<b>TBA</b>				OC	<b>PIE-044-01</b>	<b>325421</b>	<b>TTH</b>	<b>9-11:50 AM</b>		
	A. VERGUN		\$0.00	\$0.00	\$0.00	\$0.00		TBA	\$738.00	\$78.00	\$480.00	\$1,296.00	
	Required: Student Petition.							Required: Student Petition.					
<b>PIE-020</b>	<b>UPPER BEGINNING GRAMMAR, 0 CREDIT</b>						<b>PIE-046</b>	<b>EDITING FOR BETTER WRITING, 0 CREDIT</b>					
English language learners study and practice basic verb forms (simple present, and present progressive) and adverbs of frequency in written and spoken English. Required: Student Petition.							English language learners improve their writing through editing. They will also engage in extended reading to provide a context for writing. Required: Student Petition.						
OC	<b>PIE-020-01</b>	<b>325415</b>	<b>MW</b>		<b>10:30 -11:50 AM</b>		OC	<b>PIE-046-01</b>	<b>325422</b>	<b>TTH</b>	<b>9-11:50 AM</b>		
	L. JOYCE		\$369.00	\$39.00	\$240.00	\$648.00		K. LONG		\$738.00	\$78.00	\$480.00	\$1,296.00
	Required: Student Petition.							Required: Student Petition.					
<b>PIE-024</b>	<b>UPPER BEGINNING READING &amp; WRITING, 0 CREDIT</b>						<b>PIE-051</b>	<b>ADVANCED GRAMMAR B, 0 CREDIT</b>					
English language learners read short texts to improve reading skills, write simple, compound, and complex sentences, and write related sentences in paragraph form for the contexts of school, work, family and community. Required: Student Petition.							One of a three-part series. English language learners study and practice count/non-count nouns, definite/indefinite articles, and noun clauses in written and spoken English. Required: Student Petition.						
OC	<b>PIE-024-01</b>	<b>325416</b>	<b>TTH</b>		<b>9-11:50 AM</b>		OC	<b>PIE-051-01</b>	<b>329372</b>	<b>MW</b>	<b>10:30 -11:50 AM</b>		
	TBA		\$738.00	\$78.00	\$480.00	\$1,296.00		K. LONG		\$369.00	\$39.00	\$240.00	\$648.00
	Required: Student Petition.							Required: Student Petition.					
<b>PIE-030</b>	<b>INTERMEDIATE GRAMMAR A, 0 CREDIT</b>						<b>PIE-052</b>	<b>ADVANCED COMMUNICATION SKILLS 1, 0 CREDIT</b>					
One of a two-part series. English language learners study and practice simple present, present progressive, and future verb forms and modals of ability, permission, and advice. Required: Student Petition.							English language learners practice speaking and listening strategies for effective communication in discussions, presentations, lectures, note-taking, and group projects. The course builds vocabulary, critical thinking skills, and an awareness of non-verbal communication. The focus of this course is to prepare students for college success. Required: Student Petition.						
OC	<b>PIE-030-01</b>	<b>325417</b>	<b>MW</b>		<b>10:30 -11:50 AM</b>		OC	<b>PIE-052-01</b>	<b>325424</b>	<b>MW</b>	<b>9-10:20 AM</b>		
	S. MUNRO		\$369.00	\$39.00	\$240.00	\$648.00		TBA		\$369.00	\$39.00	\$240.00	\$648.00
	Required: Student Petition.							Required: Student Petition.					
<b>PIE-032</b>	<b>INTERMEDIATE CONVERSATION, 0 CREDIT</b>						<b>PIE-054</b>	<b>ADVANCED READING &amp; WRITING, 0 CREDIT</b>					
English language learners study and practice speaking and listening skills and strategies in structured tasks to improve fluency in the contexts of school, work, family and community. Required: Student Petition.							English language learners develop writing skills including summarizing, response writing, and paraphrasing, and improve writing fluency. Develop reading skills and fluency through reading a range of texts on a variety of topics. Required: Student Petition.						
OC	<b>PIE-032-01</b>	<b>325418</b>	<b>MW</b>		<b>9-10:20 AM</b>		OC	<b>PIE-054-01</b>	<b>325425</b>	<b>TTH</b>	<b>9-11:50 AM</b>		
	TBA		\$369.00	\$39.00	\$240.00	\$648.00		S. MUNRO		\$738.00	\$78.00	\$480.00	\$1,296.00
	Required: Student Petition.							Required: Student Petition.					
<b>PIE-034</b>	<b>INTERMEDIATE READING &amp; WRITING, 0 CREDIT</b>						<b>PIE-060</b>	<b>VOCABULARY BUILDING 1, 0 CREDIT</b>					
English language learners read a variety of texts to improve reading skills, and write paragraphs focused on a single topic developed with logically organized facts and details for the contexts of school, work, family and community. Required: Student Petition.							One of a two-part series. English language learners develop their passive and active vocabularies through numerous exposures to selected words from the General Service List and the Academic Word List, and develop their vocabulary acquisition skills. Required: Student Petition.						
OC	<b>PIE-034-01</b>	<b>325419</b>	<b>TTH</b>		<b>9-11:50 AM</b>		OC	<b>PIE-060-01</b>	<b>325426</b>	<b>MW</b>	<b>12:30 -1:50 PM</b>		
	TBA		\$738.00	\$78.00	\$480.00	\$1,296.00		A. VERGUN		\$369.00	\$39.00	\$240.00	\$648.00
	Required: Student Petition.							Required: Student Petition.					
<b>PIE-042</b>	<b>UPPER INTERMEDIATE CONVERSATION, 0 CREDIT</b>						<b>PIE-062</b>	<b>ESOL READING, 0 CREDIT</b>					
English language learners study and practice speaking and listening skills and strategies for independent communication to improve fluency in the contexts of school, work, family and community. Required: Student Petition.							English language learners at all levels improve their reading fluency and expand and solidify their English vocabulary as needed for more advanced ESOL and everyday life. Required: Student Petition.						
OC	<b>PIE-042-01</b>	<b>325420</b>	<b>MW</b>		<b>9-10:20 AM</b>		OC LCT	<b>PIE-062-01</b>	<b>325427</b>	<b>MW</b>	<b>12:30 -1:50 PM</b>		
	S. MUNRO		\$369.00	\$39.00	\$240.00	\$648.00		TBA		\$369.00	\$39.00	\$240.00	\$648.00
	Required: Student Petition.							Required: Student Petition.					
<b>PIE-044</b>	<b>UPPER INTERMEDIATE READING &amp; WRITING, 0 CREDIT</b>												
English language learners read a variety of texts to improve reading skills, and produce basic multi-paragraph texts for the contexts of school, work, family and community. Required: Student Petition.													

English Literature

**Campus Locations:**  
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**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor			Tuition	Fee	Crs. Fee

**ENG-104 INTRODUCTION TO LITERATURE: FICTION, 4 CREDITS**

An introduction to American and international short stories, with a focus on the fundamental elements of fiction. Also examines the historical, social, and cultural background and significance of fiction. Students engage in literary analysis, use literary terminology, and develop personal and scholarly responses to fiction.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

OC HYB LCT	ENG-104-01	325775	M			1-2:50 PM
	C. BURNELL	\$492.00	\$52.00	\$0.00		\$544.00

**ENG-116 INTRODUCTION TO LITERATURE: COMICS, 4 CREDITS**

Examines the intrinsic literary and artistic qualities of comics, as well as their connections to classic literature, and the literature and other art they have inspired.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

OC	ENG-116-01	329381	TTH			1-2:50 PM
	R. DAVIS	\$492.00	\$52.00	\$0.00		\$544.00

**ENG-121 MYSTERY FICTION, 4 CREDITS**

An introduction to detective/mystery fiction. Students will read, discuss, and analyze short stories by writers such as Edgar Allan Poe, Agatha Christie, and Walter Mosley.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

ONL	ENG-121-01	325783				
	D. MOUNT	\$492.00	\$52.00	\$0.00		\$544.00

**ENG-201 SHAKESPEARE, 4 CREDITS**

Selected comedies, histories, tragedies, romances, and poetry. Students focus on reading and discussion, literary interpretation, and relating Shakespeare's work to their lives and the world. Works from ENG-201 will not be repeated in CCC's other Shakespeare course, ENG-202.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

OC	ENG-201-01	325784	TTH			10-11:50 AM
	S. MACH	\$492.00	\$52.00	\$0.00		\$544.00

**ENG-204 BRITISH LITERATURE: ANCIENT TO ENLIGHTENMENT, 4 CREDITS**

Representative study of British literature, including major works, writers, and literary forms, from its beginnings through the eighteenth century. Readings from the Anglo-Saxon, Middle English, Renaissance, Restoration, and Enlightenment periods.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

ONL LCT	ENG-204-01	325786				
	J. MCALPINE	\$492.00	\$52.00	\$0.00		\$544.00

**ENG-225 CREATIVE NONFICTION LITERATURE, 4 CREDITS**

Discussion and analysis of various types of creative nonfiction such as literary journalism, memoirs, nature or science writing, literary travel writing, and personal essays.

**Prerequisites:** WRD-098 or placement in WR-121Z

HAR HYB	ENG-225-30	329382	M			6-7:50 PM
	S. NIZIOLEK	\$492.00	\$52.00	\$0.00		\$544.00

**ENG-241 NORSE MYTHOLOGY, 4 CREDITS**

Explores Norse mythology and its cultural, social, and literary significance; views Norse mythology in its historical and geographic positions and in the larger context of Western literary traditions; introduces theoretical approaches to mythology and basic literary elements and terminology; considers how studying myth affects and influences reading other works; connects Norse myth to medieval European and modern fantasy literature.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

OC	ENG-241-01	325789	MW			10-11:50 AM
	J. BRYANT-TRERISE	\$492.00	\$52.00	\$0.00		\$544.00

Focus on selected authors and works of American fiction, poetry, nonfiction, and drama. Theme changes yearly.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

ONL	ENG-255-01	329383				
	T. DONNELLY	\$492.00	\$52.00	\$0.00		\$544.00

The focus this term is Mental Health in American Literature.

**ENG-260 INTRODUCTION TO WOMEN WRITERS, 4 CREDITS**

The study of the works (e.g. plays, poems, fiction, new media) created by women writers, both classic and contemporary, with an emphasis on women's evolving social, historical, and economic roles.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

ONL	ENG-260-01	329384				
	N. ROSEVEAR	\$492.00	\$52.00	\$0.00		\$544.00

**ENG-280 ENGLISH/CWE, 2-6 CREDITS**

Cooperative work experience. Provides students with on-the-job experience in the field of English studies. Variable Credit: 2-6 credits. Required: Student Petition.

**Corequisites:** CWE-281

ONL LCT	ENG-280-01	325795				
	A. COFFEY	\$738.00	\$78.00	\$45.00		\$861.00V

Required: Student Petition. Corequisite: Take 1 of the following CWE-281-06.

**ENG-297 A.S. DEGREE PORTFOLIO, 1 CREDIT**

This course provides the opportunity for A.S. Degree students to revise, edit, reflect upon, and compile their best work from their various focus areas to meet the outcomes for the program and prepare for transfer to a university.

**Required:** Students must be in the second year of their course of study, and have the majority of their focus area and transfer requirements complete

ONL LCT	ENG-297-01	325806				
	A. COFFEY	\$123.00	\$13.00	\$0.00		\$136.00

Required: Student Petition.

**Environmental Science**

**ESR-171 INTRODUCTION TO ENVIRONMENTAL SCIENCE, 4 CREDITS**

Introduction to environmental science topics. Will focus on human impacts on land, air, water and ecology, climate change, sustainability, environmental impacts on human health and environmental justice. The laboratory assignments will focus on applied introductory environmental science topics.

**Required:** Student Petition.

ONL LCT	ESR-171-01	325806				
	A. COFFEY	\$123.00	\$13.00	\$0.00		\$136.00

Required: Student Petition.

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Course No	Course Title, Credits					Course No	Course Title, Credits				
	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total		Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee		Instructor		Tuition	Fee	Crs. Fee

**Corequisites:** ESR-171L  
**Recommended Prerequisites:** MTH-060 or MTH-098 with a C or better, or placement in MTH-065. WRD-098 or placement in WR-121Z

OC LCT	<b>ESR-171-01</b>	<b>325812</b>	<b>TTH</b>	<b>1-2:20 PM</b>							
	E. CAVALIERE	\$492.00	\$52.00	\$55.00	\$599.00						
	Corequisite: Take 1 of the following ESR-171L-01, ESR-171L-02, ESR-171L-03.										
ONL LCT	<b>ESR-171-02</b>	<b>325815</b>									
	E. CAVALIERE	\$492.00	\$52.00	\$55.00	\$599.00						
	This section has an in-person lab requirement. Corequisite: Take 1 of the following ESR-171L-01, ESR-171L-02, ESR-171L-03.										
HAR	<b>ESR-171-30</b>	<b>325817</b>	<b>T</b>	<b>6-8:50 PM</b>							
	S. BALLEW	\$492.00	\$52.00	\$55.00	\$599.00						
	This section has an in-person lab requirement. Corequisite: Take the following ESR-171L-30.										

**ESR-171L INTRODUCTION TO ENVIRONMENTAL SCIENCE LAB, 0 CREDIT**

Lab course for ESR-171

**Corequisites:** ESR-171

OC	<b>ESR-171L-01</b>	<b>325818</b>	<b>T</b>	<b>9-11:50 AM</b>							
	E. CAVALIERE	\$0.00	\$0.00	\$0.00	\$0.00						
	Corequisite: Take 1 of the following ESR-171-01, ESR-171-02.										
OC	<b>ESR-171L-02</b>	<b>325821</b>	<b>W</b>	<b>1-3:50 PM</b>							
	E. CAVALIERE	\$0.00	\$0.00	\$0.00	\$0.00						
	Corequisite: Take 1 of the following ESR-171-01, ESR-171-02.										
OC	<b>ESR-171L-03</b>	<b>325822</b>	<b>TH</b>	<b>2:30 -5:20 PM</b>							
	E. CAVALIERE	\$0.00	\$0.00	\$0.00	\$0.00						
	Corequisite: Take 1 of the following ESR-171-01, ESR-171-02.										
HAR	<b>ESR-171L-30</b>	<b>325824</b>	<b>TH</b>	<b>6-8:50 PM</b>							
	S. BALLEW	\$0.00	\$0.00	\$0.00	\$0.00						
	Corequisite: Take the following ESR-171-30.										

**Ethnic Studies**

**ES-211 INTRODUCTION TO LATINO/A/X STUDIES, 4 CREDITS**

An introductory and survey course analyzing the historical context of Latinos in the United States (US). Beginning with pre-colonial societies on the American Continent, colonization, and moving to the modern Latinx diaspora. Special attention will be given to particular events that shaped and continue to influence the Latinx experience, such as the Mexican-American War, US expansionism, US immigration policy, the Chicano Movement, US foreign policy in Latin America, and the contemporary discourse regarding Latinx in the US.

**Recommended Prerequisites:** WR-121Z

OC HYB	<b>ES-211-01</b>	<b>329434</b>	<b>MW</b>	<b>2-3:50 PM</b>							
	L. MARTINEZ	\$492.00	\$52.00	\$0.00	\$544.00						

**Family Studies**

**HDF-225 PRENATAL, INFANT & TODDLER DEVELOPMENT, 3 CREDITS**

Explores the principles of child development, prenatal through three years of age. Emphasis will be placed on the physical, cognitive, and social-emotional development of young children. The impact of family dynamics, culture and socio-economic status on children's development will be explored.

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ONL	<b>HDF-225-01</b>	<b>326019</b>									
	D. HENDRICKS	\$369.00	\$39.00	\$0.00	\$408.00						

**HDF-225ES DESARROLLO DE LAS ETAPAS PRENATAL, INFANTES Y DE NIÑOS PEQUEÑOS, 4 CREDITS**

Se enfoca en la exploración del desarrollo y factores que influyen áreas relacionadas con lo físico, cognitivo y socio-emocional en los niños desde la etapa prenatal hasta los tres años de edad. Se examinarán teorías relacionadas con estas etapas, así como la influencia del lenguaje y la cultura en el desarrollo y crianza.

REM LCT ESPAÑOL	<b>HDF-225ES-01</b>	<b>326022</b>	<b>TH</b>	<b>6-7:50 PM</b>							
	M. SWARTHOUT	\$492.00	\$52.00	\$0.00	\$544.00						
	La clase se reúne cinco Juevas por Zoom (10/5, 10/19, 11/2 11/16, y 11/30 de 6:00 PM to 7:50PM).										

**HDF-260 UNDERSTANDING CHILD ABUSE AND NEGLECT, 3 CREDITS**

In this course, students will receive an overview of child abuse and neglect. Students will examine the types and causes of abuse, abused children, abusive parents, treatment, education and prevention, and resources available to assist children and families. An emphasis is placed on intervention and mandatory reporting, as well as risks and outcomes. This course discusses the investigation process of child welfare and forensic interviewing of abused children. Students will also learn about the signs and symptoms of abuse and how trauma impacts an individual's health across a lifetime.

ONL	<b>HDF-260-01</b>	<b>329415</b>									
	Y. SMITH	\$369.00	\$39.00	\$0.00	\$408.00						

**Fire Science (Wildland)**

**FRP-101 BASIC FOREST MANAGEMENT, 3 CREDITS**

An introduction to forestry and forest land management activities and practices related to forest stewardship. Students will gain an understanding of how social, economic and environmental values influence current forest policies and regulations.

**Corequisites:** FRP-102

OC	<b>FRP-101-01</b>	<b>325613</b>	<b>M</b>	<b>9-11:50 AM</b>							
	G. CLINE	\$369.00	\$39.00	\$0.00	\$408.00						

**FRP-102 BASIC FOREST MANAGEMENT LAB, 1 CREDIT**

Provides lab exercises in a forest setting experience using forest management field equipment discussed in FRP-101. The Lab includes the use of diameter tape, loggers tape, compass, clinometer, increment borer and wedge prism to measure tree height, diameter, tree age, diameter increment and basal area. Through the use of fixed plot and variable plot forest sampling methods the students will gain the skills to gather data necessary to calculate stocking, volume and growth.

**Corequisites:** FRP-101

OC LCT	<b>FRP-102-01</b>	<b>325616</b>	<b>W</b>	<b>9-11:50 AM</b>							
	G. CLINE	\$123.00	\$13.00	\$50.00	\$186.00						

**FRP-110 BASIC WILDLAND FIRE INVESTIGATION (FI-110), 1 CREDIT**

An introduction to the roles and responsibilities of wildland firefighters in determining a wildland fire origin. Students will identify the wildland fire categories, wildland fire behavior and the initial observations made by the firefighter responding to and arriving at a wildland fire. The primary emphasis of this course is to teach sound wildland fire observations and origin scene protection practices that enable first responders to a wildland fire scene to perform proper origin scene protection procedures.

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total
		Instructor		Tuition	Fee	Crs. Fee

**Prerequisites:** FRP-130 (S-130/S-190/L-180)

OC LCT	<b>FRP-110-01</b>	<b>325620 S</b>				<b>8-6:00 PM</b>
	K. GEARY	\$123.00	\$13.00	\$25.00	\$161.00	
	Meets: 11/4.					

**FRP-130 INTRODUCTION TO WILDLAND FIREFIGHTING (S-130/S-190/ICS-100/IS-700/L-180), 2 CREDITS**

This course provides an introduction to wildland fire behavior, wildland firefighting safety and wildland firefighting techniques. The course covers the basic skills necessary to fight wildland fires under close supervision. NWCG Courses completed in class include S-130, S-190, L-180, IS-100 and IS-700. Also includes the Work Capacity Test (WCT) which is needed for employment.

OC LCT	<b>FRP-130-01</b>	<b>325622 S</b>				<b>9-4:50 PM</b>
	TBA	\$246.00	\$26.00	\$50.00	\$322.00	
	Meets: 10/1-10/29.					

**FRP-200 BASIC INCIDENT COMMAND SYSTEM (I-100, I-200, IS-700, IS-800), 4 CREDITS**

Introduces the knowledge and skills to function efficiently during an incident or event within the Incident Command System (ICS). National Incident Management System (NIMS) and the National Response Framework (NRF) provide a consistent nationwide template to enable all government, private-sector, and nongovernmental organizations to work together during domestic incidents.

OC	<b>FRP-200-01</b>	<b>325626 MW</b>				<b>6-7:50 PM</b>
	B. REID	\$492.00	\$52.00	\$0.00	\$544.00	
	Students have the option to attend either in-person or virtually.					

**FRP-243 WILDERNESS I: PSYCHOLOGY OF SURVIVAL, 3 CREDITS**

Students will learn how to be mentally and physically prepared to survive in the wilderness, the psychology of surviving, and what to do when things go wrong. The course explores the science of survival. Other topics include disaster preparedness, ropes and knots, heat related injuries and increasing situation awareness.

OC	<b>FRP-243-01</b>	<b>325627 T</b>				<b>9-11:50 AM</b>
	M. ADAMS	\$369.00	\$39.00	\$25.00	\$433.00	
	There is a field day, date TBD, that is mandatory to complete the class.					

**FRP-275 WILDLAND FIRE MANAGEMENT 1, 4 CREDITS**

This course is designed to meet the needs of current and future unit level Fire Program Managers. Students will learn how to identify the basic principle, policies, and procedures to effectively and safely lead, plan, and implement a fire management program. The responsibilities of the Fire Program manager include program management and personal accountability are also covered in this course.

**Prerequisites:** FRP-130 (S-130/S-190/L-180), FRP-131 (S-131/S-133), FRP-249 (L-280), and WR-101 or WR-121Z

OC	<b>FRP-275-01</b>	<b>325629 TTH</b>				<b>6-7:50 PM</b>
	TBA	\$492.00	\$52.00	\$25.00	\$569.00	
	Students have the option to attend either in-person or virtually.					

**First Year Experience (FYE)**

**FYE-101 FIRST YEAR EXPERIENCE LEVEL I, 2 CREDITS**

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		Instructor		Tuition	Fee	Crs. Fee

This is the first course in a 3-course sequence designed to help students adjust to a new campus, connect with other students, understand college expectations and systems, and access services available through the college. The First Year Experience Level I course is designed to help students in developing relationships with students and faculty, and to build student behaviors for successfully completing classes and continuing college through to completion.

OC	<b>FYE-101-01</b>	<b>325819 MW</b>				<b>9-9:50 AM</b>
	D. GREEN	\$0.00	\$0.00	\$93.00	\$93.00	
OC	<b>FYE-101-02</b>	<b>325826 MW</b>				<b>10-10:50 AM</b>
	T. STAUFFER	\$0.00	\$0.00	\$93.00	\$93.00	
	DEXTER					
OC	<b>FYE-101-03</b>	<b>325832 MW</b>				<b>11-11:50 AM</b>
	TBA	\$0.00	\$0.00	\$93.00	\$93.00	
OC	<b>FYE-101-04</b>	<b>325837 M</b>				<b>1-2:50 PM</b>
	C. SIMS	\$0.00	\$0.00	\$93.00	\$93.00	
OC	<b>FYE-101-05</b>	<b>325845 TTH</b>				<b>9-9:50 AM</b>
	TBA	\$0.00	\$0.00	\$93.00	\$93.00	
OC	<b>FYE-101-06</b>	<b>325850 TTH</b>				<b>10-10:50 AM</b>
	M. BAKER	\$0.00	\$0.00	\$93.00	\$93.00	
OC	<b>FYE-101-07</b>	<b>325857 TTH</b>				<b>11-11:50 AM</b>
	J. CORTES	\$0.00	\$0.00	\$93.00	\$93.00	
ONL	<b>FYE-101-08</b>	<b>325861</b>				
	D. WOOD	\$0.00	\$0.00	\$93.00	\$93.00	
ONL	<b>FYE-101-09</b>	<b>325866</b>				
	D. WOOD	\$0.00	\$0.00	\$93.00	\$93.00	

**FYE-101ES EXPERIENCIA DE PRIMER AÑO (FIRST YEAR EXPERIENCE EN ESPAÑOL), 2 CREDITS**

Este es el primer curso en la serie de 3 clases diseñadas para ayudar a los estudiantes novatos o que inician apenas su trayectoria estudiantil, con el ajuste a un plantel nuevo, a conectar con otros alumnos, a entender las expectativas del sistema estudiantil, y a familiarizarse con la fuente de servicios al alcance del estudiante. First Year Experience (Experiencia de Primer Año) está diseñada para preparar a los estudiantes a entablar nexos entre estudiante y profesorado, y con el desarrollo de prácticas exitosas para concluir clases y continuar con el estudio hasta la culminación de metas académicas.

REM ESPAÑOL	<b>FYE-101ES-01</b>	<b>325904 TTH</b>				<b>5-5:50 PM</b>
	L. MARTINEZ	\$0.00	\$0.00	\$93.00	\$93.00	
REM ESPAÑOL	<b>FYE-101ES-02</b>	<b>325909 MW</b>				<b>5-5:50 PM</b>
	K. CUEVAS	\$0.00	\$0.00	\$93.00	\$93.00	

**FYE-102 FIRST YEAR EXPERIENCE LEVEL II, 1 CREDIT**

This course is a second in the First Year Experience sequence offered to new CCC students. This course is designed for students who want to continue to delve in depth into future educational and career planning, financial aid and scholarships, applied study skills, and college and community resources.

**Prerequisites:** FYE-101

ONL	<b>FYE-102-01</b>	<b>325917</b>				
	D. GREEN	\$0.00	\$0.00	\$75.00	\$75.00	

**FYE-103 FIRST YEAR EXPERIENCE LEVEL III, 1 CREDIT**

This is the third course in the First Year Experience sequence. This course is designed to help students prepare for their future, including transferring to another school or university, how to search for employment, becoming proficient in the use of test taking skills, and how to break large projects and assignments into more manageable pieces for successful completion.

**Prerequisites:** FYE-102

Course No	Course Title, Credits	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Section No Instructor		Tuition Fee	Crs. Fee	
ONL	<b>FYE-103-01</b> 329435 D. GREEN Required: Student Petition.		\$0.00 \$0.00	\$75.00	\$75.00

**Food & Nutrition**

**FN-110 PERSONAL NUTRITION, 3 CREDITS**

This course explores how nutrition affects health and fitness for the individual and the family. Students apply knowledge of nutrition guidelines to analyze personal diet and improve current food preparation and habits. It is a basic nutrition course for students with little or no science background.

ONL	<b>FN-110-01</b> 329357 T. SCOLLARD		\$369.00 \$39.00	\$0.00	\$408.00
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**FN-225 NUTRITION, 4 CREDITS**

This course explores the role of nutrients in the development and maintenance of a healthy body. The course examines the relationship between diet and health. Students apply knowledge of nutritional adequacy through computer-aided diet analysis. It discusses current nutrition recommendations and controversies. The course meets requirements for most nursing programs.

**Recommended:** A strong background in anatomy and physiology, biology or chemistry

ONL	<b>FN-225-01</b> 325139 T. SCOLLARD		\$492.00 \$52.00	\$107.48	\$651.48
Online textbook included in section fees.					
ONL	<b>FN-225-02</b> 325140 J. PAVLINAC		\$492.00 \$52.00	\$107.48	\$651.48
Online textbook included in section fees.					
ONL	<b>FN-225-03</b> 325141 J. PAVLINAC		\$492.00 \$52.00	\$107.48	\$651.48
Online textbook included in section fees.					

**General Development Education (GED)**

*GED Classes offered Days and Evenings*

*Students will be placed in the appropriate class based on their schedules and intake assessments. Please call 503-594-3028 for orientation information.*

**GED-011 GED IN ESPAÑOL, 0 CREDIT**

Instrucción del desarrollo de habilidades básicas ofrecida en español. Un examen de diagnóstico determina las necesidades académicas del alumno. Inscripción y terminación del curso todo el tiempo durante el trimestre, se ofrece en Harmony center y Oregon City campus. Se requiere el consentimiento del Instructor para registrarse. Basic academic instruction offered in Spanish. Diagnostic tests determine individual academic needs. Open-entry, open-exit class offered at Harmony center and Oregon City campus. Required: Student Petition.

REM ESPAÑOL	<b>GED-011-01</b> 325921 MW A. ARISTIZABAL		\$0.00 \$0.00	\$50.00	\$50.00
Required: Student Petition. For registration information contact Adriana Aristizabal at 503-594-3916 or register at first class.					

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**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

Course No	Course Title, Credits	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Section No Instructor		Tuition Fee	Crs. Fee	
HAR ESPAÑOL	<b>GED-011-02</b> 325927 TTH C. SANCHEZ Required: Student Petition. For registration information contact Camilo Sanchez at 503-594-3029 or register at the first class.		\$0.00 \$0.00	\$50.00	\$50.00

**GED-015 GED PREPARATION, 0 CREDIT**

Basic academic skill development preparing for the GED 2014 tests and transition to career or post-secondary education. Course focuses primarily on language arts, math and technology skills. Provides direction and support for transitioning students. Required: Student Petition.

OC LCT	<b>GED-015-17</b> 325933 MW TBA		\$0.00 \$0.00	\$50.00	\$50.00
Required: Student Petition.					
OC LCT	<b>GED-015-20</b> 329367 TTH TBA		\$0.00 \$0.00	\$0.00	\$0.00
Required: Student Petition.					
HAR HYB LCT	<b>GED-015-67</b> 325942 MW TBA		\$0.00 \$0.00	\$55.00	\$55.00
Required: Student Petition.					
ONL LCT	<b>GED-015-68</b> 325945 TBA		\$0.00 \$0.00	\$55.00	\$55.00
Required: Student Petition.					
ONL LCT	<b>GED-015-69</b> 329368 TBA		\$0.00 \$0.00	\$55.00	\$55.00
Required: Student Petition.					
OC LCT	<b>GED-015-80</b> 325946 MTWTH TBA		\$0.00 \$0.00	\$55.00	\$55.00
Required: Student Petition.					

**GED-049 LATINO GED & LIFE SKILLS, 0 CREDIT**

Desarrollo de habilidades académicas básicas, ofrecida en español con énfasis en los requerimientos para presentar el test del GED para obtener el certificado equivalente a la High School. También se enfoca en habilidades básicas de la vida, metas personales e interés de carreras. Se requiere el consentimiento del Instructor para registrarse. Offered in Spanish. Basic academic skill development with emphasis on requirements to take the GED test to obtain a high school equivalency certificate. Also focuses on basic life skills, personal and career goals and interests. Required: Student Petition.

HAR ESPAÑOL	<b>GED-049-03</b> 325961 MW C. SANCHEZ		\$0.00 \$0.00	\$50.00	\$50.00
Required: Student Petition. For registration information contact Camilo Sanchez at 503-594-3029 or register at first class.					
HAR ESPAÑOL	<b>GED-049-04</b> 325964 S M. ROSAS DELGADO		\$0.00 \$0.00	\$30.00	\$30.00
Required: Student Petition.					

**General Science**

**GS-104 EARTH SYSTEM SCIENCE, 4 CREDITS**

A lab course designed to give an overview of the physical sciences by examining the relationship between physics, chemistry and geology in the natural world. Topics include plate tectonics, the Earth's structure, earthquakes/hazards, mineral chemistry, igneous rocks, and volcanoes/hazards.

**Corequisites:** GS-104L

**Recommended Prerequisites:** MTH-065 or placement in MTH-095

**Other Coding Translations:**  
**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text



Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

OC LCT	<b>GS-104-01</b> 325856 TTH				10-11:20 AM	
	B. WALKER	\$492.00	\$52.00	\$50.00		\$594.00
	Corequisite: Take the following GS-104L-01.					

**GS-104L EARTH SYSTEM SCIENCE LAB, 0 CREDIT**

Lab course for GS-104

**Corequisites:** GS-104

OC LCT	<b>GS-104L-01</b> 325860 TH				1-3:50 PM	
	B. WALKER	\$0.00	\$0.00	\$0.00		\$0.00
	Corequisite: Take the following GS-104-01.					

**GS-107 ASTRONOMY, 4 CREDITS**

A lab course including the history of astronomy, the Earth and moon, all planets in our solar system, along with asteroids, meteors and comets.

**Corequisites:** GS-107L

**Prerequisites:** MTH-065 or MTH-098 with a C or better or placement in MTH-095

**Prerequisites:** WRD-090 or placement in WRD-098

ONL LCT	<b>GS-107-40</b> 325864					
	J. DICKINSON	\$492.00	\$52.00	\$25.00		\$569.00
	Corequisite: Take the following GS-107L-40.					

ONL LCT	<b>GS-107-41</b> 325871					
	J. DICKINSON	\$492.00	\$52.00	\$25.00		\$569.00
	Corequisite: Take the following GS-107L-41.					

**GS-107L ASTRONOMY LAB, 0 CREDIT**

Lab course for GS-107

**Corequisites:** GS-107

ONL LCT	<b>GS-107L-40</b> 325873					
	J. DICKINSON	\$0.00	\$0.00	\$0.00		\$0.00
	Corequisite: Take the following GS-107-40.					

ONL LCT	<b>GS-107L-41</b> 325875					
	J. DICKINSON	\$0.00	\$0.00	\$0.00		\$0.00
	Corequisite: Take the following GS-107L-41.					

**Geographic Information Systems**

*All degree seeking students should arrange to speak to a faculty advisor prior to registering. Call 503-594-3318 for more information, or contact Advising, 503-594-3475.*

**GIS-101 PRINCIPLES OF GEOSPATIAL TECHNOLOGY, 2 CREDITS**

This course serves as an overview of the concepts and principles of geospatial technology using lab activities to explore maps, geospatial data, and geospatial software. Major themes include: maps and cartography, geodesy, geographic information systems, spatial data privacy, global navigation satellite systems, remote sensing/image interpretation, terrain analysis, web maps, and the geospatial industry.

ONL LCT	<b>GIS-101-01</b> 325633					
	A. ARMEN	\$246.00	\$26.00	\$30.00		\$302.00

**GIS-201 INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS, 3 CREDITS**

**Campus Locations:**

- HAR:** Harmony Community Campus
- OC:** Oregon City Campus
- WILS:** Wilsonville Training Center
- OFF:** Other Off-Campus Location

**Distance Education Notification:**

- ONL:** Online Only
- REM:** Remote (w/ scheduled meetings)
- HYB:** In-person plus online work

**Other Coding Translations:**

- TBA:** To be arranged: contact department first class
- VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español

**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

This course explores fundamental geographic information systems (GIS) concepts utilizing hands-on application through various laboratory exercises with industry-standard ArcGIS software. The class explores basic map principles, cartographic design, geodesy, and geospatial data manipulation while exploring ArcGIS Online to create, display, query, relate, classify, and analyze spatial data to create maps and answer geographic questions.

ONL LCT	<b>GIS-201-01</b> 325634					
	A. ARMEN	\$369.00	\$39.00	\$20.00		\$428.00

**Geography**

**GEO-110 CULTURAL & HUMAN GEOGRAPHY, 4 CREDITS**

Introduces geographical perspectives on human population, agriculture, political pattern, language, religion, folk culture, popular culture, ethnic culture, urban development, industry, and transportation as these play out on the diverse landscapes of the world.

**Recommended Prerequisites:** WRD-090 or placement in WRD-098

ONL	<b>GEO-110-01</b> 325969					
	C. FELDMAN	\$492.00	\$52.00	\$0.00		\$544.00

**GEO-130 INTRODUCTION TO ENVIRONMENTAL GEOGRAPHY, 4 CREDITS**

Explores the contemporary global environmental problems such as: overpopulation, over consumption, ozone layer depletion, pollution, acid rain, deforestation, desertification, and waste problems. Examines alternative sources of energy to fossil fuel and sustainable development strategies.

**Recommended Prerequisites:** WRD-090 or placement in WRD-098

WILS HYB	<b>GEO-130-15</b> 325972 T				6-7:50 PM	
	A. ARMEN	\$492.00	\$52.00	\$0.00		\$544.00

**GEO-208 GEOGRAPHY OF THE UNITED STATES & CANADA, 4 CREDITS**

Provides students with the fundamental geographical knowledge of the United States and Canada and their paths of development. Presents the spatial arrangement of culture, economics, politics, and the natural environment.

**Recommended Prerequisites:** WRD-090 or placement in WRD-098

ONL	<b>GEO-208-01</b> 325975					
	A. ARMEN	\$492.00	\$52.00	\$0.00		\$544.00

**GEO-280 GEOGRAPHY/CWE, 2-6 CREDITS (VAR)**

Cooperative work experience. Provides students with on-the-job work experience in the field of geography. Variable Credit: 2-6 credits. Required: Student Petition.

**Corequisites:** CWE-281

OC	<b>GEO-280-01</b> 325979					
	J. KISSLER	\$738.00	\$78.00	\$45.00		\$861.00V
	Required: Student Petition. Corequisite: Take 1 of the following CWE-281-06.					

**Geology**

**G-101 GENERAL GEOLOGY, 4 CREDITS**

For non-science majors. A lab course introducing geologic principles and concepts; Earth structure, igneous, sedimentary, and metamorphic rock environments, volcanic activity, and landforms. Lab requires students to identify ore minerals, rock forming minerals, igneous, metamorphic and sedimentary rocks.

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
Instructor	Tuition	Fee	Crs. Fee			

**Corequisites:** G-101L

**Recommended Prerequisites:** WRD-090 or placement in WRD-098

OC LCT	<b>G-101-01</b>	<b>325827 MW</b>			<b>10-11:20 AM</b>	
	S. HOOVER	\$492.00	\$52.00	\$50.00	\$594.00	
	Corequisite: Take 1 of the following G-101L-01, G-101L-02.					
REM LCT	<b>G-101-02</b>	<b>325831 TTH</b>			<b>3-4:20 PM</b>	
	S. HOOVER	\$492.00	\$52.00	\$50.00	\$594.00	
	This class has an in-person lab requirement. Corequisite: Take 1 of the following G-101L-01, G-101L-02.					
WILS LCT	<b>G-101-15</b>	<b>325834 T</b>			<b>6-8:50 PM</b>	
	J. WOODCOCK	\$492.00	\$52.00	\$50.00	\$594.00	
	This class has an in-person lab requirement. Corequisite: Take the following G-101L-15.					

**G-101L GENERAL GEOLOGY LAB, 0 CREDIT**

Lab course for G-101

**Corequisites:** G-101

OC LCT	<b>G-101L-01</b>	<b>325836 T</b>			<b>9-11:50 AM</b>	
	S. HOOVER	\$0.00	\$0.00	\$0.00	\$0.00	
	Corequisite: Take 1 of the following G-101-01, G-101-02.					
OC LCT	<b>G-101L-02</b>	<b>325839 W</b>			<b>1-3:50 PM</b>	
	S. HOOVER	\$0.00	\$0.00	\$0.00	\$0.00	
	Corequisite: Take 1 of the following G-101-01, G-101-02.					
WILS LCT	<b>G-101L-15</b>	<b>325840 TH</b>			<b>6-8:50 PM</b>	
	J. WOODCOCK	\$0.00	\$0.00	\$0.00	\$0.00	
	Corequisite: Take the following G-101-15.					

**G-201 GENERAL GEOLOGY, 4 CREDITS**

For science majors. A lab course introducing geologic principles and concepts; weathering, soils, Earth structure, igneous, sedimentary, metamorphic rocks, volcanic activity, and landforms. Lab requires students to identify ore minerals, rock forming minerals, igneous, metamorphic and sedimentary rocks.

**Corequisites:** G-201L

**Prerequisites:** WRD-090 or placement in WRD-098

OC LCT	<b>G-201-01</b>	<b>325844 MW</b>			<b>10-11:20 AM</b>	
	S. HOOVER	\$492.00	\$52.00	\$50.00	\$594.00	
	Corequisite: Take 1 of the following G-201L-01, G-201L-02.					
REM LCT	<b>G-201-02</b>	<b>325846 TTH</b>			<b>3-4:20 PM</b>	
	S. HOOVER	\$492.00	\$52.00	\$50.00	\$594.00	
	This section has an in-person lab requirement. Corequisite: Take 1 of the following G-201L-01, G-201L-02.					
WILS LCT	<b>G-201-15</b>	<b>325849 T</b>			<b>6-8:50 PM</b>	
	J. WOODCOCK	\$492.00	\$52.00	\$50.00	\$594.00	
	This section has an in-person lab requirement. Corequisite: Take the following G-201L-15.					

**G-201L GENERAL GEOLOGY LAB, 0 CREDIT**

Lab course for G-201

**Corequisites:** G-201

OC LCT	<b>G-201L-01</b>	<b>325851 T</b>			<b>9-11:50 AM</b>	
	S. HOOVER	\$0.00	\$0.00	\$0.00	\$0.00	
	Corequisite: Take 1 of the following G-201-01, G-201-02.					
OC LCT	<b>G-201L-02</b>	<b>325853 W</b>			<b>1-3:50 PM</b>	
	S. HOOVER	\$0.00	\$0.00	\$0.00	\$0.00	
	Corequisite: Take 1 of the following G-201-01, G-201-02.					
WILS LCT	<b>G-201L-15</b>	<b>325855 TH</b>			<b>6-8:50 PM</b>	
	TBA	\$0.00	\$0.00	\$0.00	\$0.00	
	Corequisite: Take the following G-201-15.					

**Campus Locations:**

**HAR:** Harmony Community Campus  
**OC:** Oregon City Campus  
**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

**Distance Education Notification:**

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**REM:** Remote (w/ scheduled meetings)  
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**Gerontology**

**GRN-165 LIFE ENRICHMENT WITH OLDER ADULTS, 3 CREDITS**

Course focuses on creating meaningful activities for older adults in various settings, including long-term care and residential facilities. Focuses on creating person-centered programs that provide enriching activities for adults of all levels of cognitive ability. Includes federal guidelines for activities, as well as documentation. Course fulfills requirements for basic certification in the State of Oregon for Activity Professionals.

HAR	<b>GRN-165-01</b>	<b>329378 T</b>			<b>3-5:50 PM</b>	
	Y. SMITH	\$369.00	\$39.00	\$0.00	\$408.00	

**GRN-181 ISSUES IN AGING, 3 CREDITS**

Provides an introduction to gerontology including the history of aging and current issues. Covers: myths, stereotypes, economic and political aspects, demographics and service availability for aging populations.

HAR HYB LCT	<b>GRN-181-01</b>	<b>325119 T</b>			<b>1-2:50 PM</b>	
	Y. SMITH	\$369.00	\$39.00	\$0.00	\$408.00	
	Meets: 9/26, 10/10, 10/24, 11/7, & 11/21.					

ONL LCT	<b>GRN-181-02</b>	<b>325120</b>				
	Y. SMITH	\$369.00	\$39.00	\$0.00	\$408.00	

**GRN-280 GERONTOLOGY/CWE, 2-6 CREDITS**

Cooperative work experience. Acquaint gerontology students with the roles and related activities of organizations serving the elderly. This course provides an opportunity to apply theories and techniques learned in the classroom. Variable Credit: 2-6 credits. May be repeated for up to 6 credits. Required: Student Petition.

**Corequisites:** CWE-281

**Prerequisite or Corequisite:** HS-170

HAR HYB LCT	<b>GRN-280-01</b>	<b>325121</b>				
	J. LOVELESS	\$738.00	\$78.00	\$45.00	\$861.00V	
	Required: Student Petition. Corequisite: Take 1 of the following CWE-281-06.					

**Health**

**HE-163 BODY & DRUGS I: INTRODUCTION TO ABUSE & ADDICTION, 3 CREDITS**

The first of a four-course sequence, this course examines the history of the use of addictive drugs, the definition of addiction, psychosocial and neurobiological causes of drug and behavioral addiction, addictive drug classifications, and the history of/introduction to addiction treatment, and access and utilize effective resources to improve and maintain mental and physical wellbeing.

ONL	<b>HE-163-01</b>	<b>325891</b>				
	T. PANTAGES	\$369.00	\$39.00	\$0.00	\$408.00	
ONL	<b>HE-163-02</b>	<b>325895</b>				
	T. PANTAGES	\$369.00	\$39.00	\$0.00	\$408.00	

**HE-164 BODY & DRUGS II: ALCOHOL, 3 CREDITS**

The second of a four-course offering. Covers beverage alcohol as a drug, the history of alcohol use/abuse, physiological and psychological effects of alcohol use on the user, and the impact of that use on those around the user and on society at large, access and utilize effective resources to improve and maintain mental and physical wellbeing.

**Prerequisites:** HE-163

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	
ONL	<b>HE-164-01</b> T. PANTAGES	<b>325896</b>	\$369.00	\$39.00	\$0.00	\$408.00

**HE-201 PERSONAL TRAINING, 3 CREDITS**

Students will follow the curriculum for the National Council on Strength and Fitness (NCSF) Certified Personal Trainer certification. The course will guide students through the expectations, requirements, processes and knowledge to prepare to become a certified Personal Trainer through the NCSF. Through videos, lecture and self-study, students will be prepared to take the NCSF Certified Personal Training exam, which is offered through the NCSF and is not included in the course.

**Recommended Prerequisites:** PE-240

ONL	<b>HE-201-01</b> T. NELSON	<b>325898</b>	\$369.00	\$39.00	\$0.00	\$408.00
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**HE-202 INTRODUCTION TO FITNESS TECHNOLOGY CAREERS, 1 CREDIT**

This course will explore the various careers in the Fitness Industry through lecture and guest speakers currently in the professional field. Students will gain insight to the requirements, expectations, salary range, education requirements, and any additional information related to specific careers.

ONL	<b>HE-202-01</b> T. NELSON	<b>325899</b>	\$123.00	\$13.00	\$0.00	\$136.00
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**HE-204 NUTRITION & WEIGHT CONTROL, 3 CREDITS**

Methods of maintaining or improving nutrition by considering diets and dieting, obesity, types of exercise, physical testing, cardio-vascular fitness and nutritional concepts.

ONL	<b>HE-204-01</b> J. BUEL Meets: 11/16-12/11.	<b>325902</b>	\$369.00	\$39.00	\$0.00	\$408.00
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**HE-207 INTRODUCTION TO PLANT BASED LIVING, 3 CREDITS**

The course is designed to give students a basic understanding of a plant based diet/lifestyle and the benefits of this type of lifestyle. Students will learn about the physical benefits of a plant based diet, organic foods, current environmental impacts of the big agricultural companies, animal welfare, and workers' rights as well as the research that has been documented to support the information.

ONL	<b>HE-207-01</b> T. NELSON	<b>325913</b>	\$369.00	\$39.00	\$0.00	\$408.00
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**HE-223 SPORTS NUTRITION, 3 CREDITS**

Examination of nutrition as it relates to the demands of exercise and competitive sport. Emphasis on the relationship of diet and exercise to optimal health and performance. This course can lead to a certification as a sports nutritionist through the NCSF.

ONL	<b>HE-223-01</b> J. BUEL	<b>325915</b>	\$369.00	\$39.00	\$0.00	\$408.00
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**HE-249 MENTAL HEALTH, 3 CREDITS**

Designed for each student to understand and improve their personal mental health. Teaches theories of mental health as well as practical strategies for improving one's level of mental health. Analyzes factors that may impede optimal mental health, again with practical solutions for minimizing/avoiding such factors.

REM	<b>HE-249-01</b> K. WOODS	<b>325919 MW</b>	\$369.00	\$39.00	\$0.00	\$408.00
		<b>1-2:20 PM</b>				

**HE-250 PERSONAL HEALTH, 3 CREDITS**

This course is designed to help students gain an overall understanding of information basic to the field of health, to help them critically evaluate health information, and to promote positive attitudes, values, and behaviors in regard to personal health.

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	
ONL	<b>HE-250-01</b> J. RHODEN	<b>325924</b>	\$369.00	\$39.00	\$0.00	\$408.00
ONL	<b>HE-250-02</b> J. RHODEN Meets: 11/13-12/9.	<b>325932</b>	\$369.00	\$39.00	\$0.00	\$408.00

**HE-252 FIRST AID/CPR/AED, 3 CREDITS**

This course supports the American Red Cross program for First Aid/CPR/AED and will teach participants the knowledge and skills needed to give immediate care to an injured or ill person and to decide whether advanced medical care is needed. Successful completion of the course leads to a Red Cross First Aid/CPR/AED certification for the lay responder.

ONL	<b>HE-252-01</b> K. ARIZO	<b>325935</b>	\$369.00	\$39.00	\$30.00	\$438.00
ONL	<b>HE-252-03</b> T. NELSON	<b>325937</b>	\$369.00	\$39.00	\$30.00	\$438.00
ONL	<b>HE-252-05</b> K. WOODS	<b>325938</b>	\$369.00	\$39.00	\$30.00	\$438.00

**HE-280 HEALTH/CWE, 2-6 CREDITS**

Cooperative work experience. Provides students with on-the-job experience and training related to the Physical Education field. Covers job problems and procedures, evaluation of students' job performance by qualified college staff and site supervision. Variable Credit: 2-6 credits. May be repeated for up to 12 credits. Required: Student Petition.

**Corequisites:** CWE-281

ONL	<b>HE-280-01</b> T. NELSON	<b>325940</b>	\$738.00	\$78.00	\$45.00	\$861.00V
			Required: Student Petition. Corequisite: Take 1 of the following CWE-281-06.			

**Health & Fitness**

**HPE-295 HEALTH & FITNESS FOR LIFE, 3 CREDITS**

This course explores interaction of the nine dimensions of wellness (health). All of the related assignments are online. Students will assess their level of the health related components of fitness and develop an exercise plan for maintenance/improvement. Students are expected to spend a minimum of 3 hours per week exercising. Related topics include: nutrition, stress reduction, relaxation techniques, goal setting, and weight control.

**Recommended:** A completed physical by a doctor

ONL	<b>HPE-295-01</b> P. FISKUM	<b>326012</b>	\$369.00	\$39.00	\$30.00	\$438.00
ONL	<b>HPE-295-02</b> J. BUEL	<b>326017</b>	\$369.00	\$39.00	\$30.00	\$438.00
ONL	<b>HPE-295-03</b> J. RHODEN	<b>326018</b>	\$369.00	\$39.00	\$30.00	\$438.00

**High School Diploma (AHSD)**

**Campus Locations:**

**HAR:** Harmony Community Campus  
**OC:** Oregon City Campus  
**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

**Distance Education Notification:**

**ONL:** Online Only  
**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

**Other Coding Translations:**

**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español

**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

*The Adult High School Diploma program is designed for students who have earned at least 14 credits. Students who are under 18 years old or whose high school class has not graduated must have an official CCC referral or a release from compulsory attendance to begin the program. Classes are assigned individually. Please contact the Skills Development Department at 503-594-3028.*

**ASE-042 JOB SKILLS COMPETENCY LAB, 0.5 CREDIT**

Provides overview of college and career processes and expectations including cooperative work experience for employed high school students to earn elective credit. Focuses on appropriate work and college behaviors, decision making techniques, communication skills, and teamwork. May be repeated for up to 2 high school credits. Required: Student Petition.

OC HYB	<b>ASE-042-03</b>	<b>329369 M</b>			<b>4-4:50 PM</b>	
	M. TIZO	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Required: Student Petition.					

**XASE-0001 BASIC ESSENTIAL SKILLS SUPPORT, 0 CREDIT**

Offers students academic assessments, coaching, and support to reach basic essential skills competencies necessary for students' program of study. Students utilize computer based material in a self-paced format to improve academic skills, and work with the instructor to develop future plans and set appropriate goals. Students set attainable goals, apply appropriate strategies, and use college resources to meet the competencies necessary to succeed in their academic programs.

HAR HYB	<b>XASE-0001-03</b>	<b>326436 MW</b>			<b>10-11:50 AM</b>	
	M. NICKAS	\$0.00	\$0.00	\$30.00	\$30.00	\$30.00
	Required: Student Petition.					

**History**

**HST-101 HISTORY OF WESTERN CIVILIZATION, 4 CREDITS**

Origins and development of Western Civilization with a primary focus on Europe from ancient times to ca. 1300.

**Recommended Prerequisites:** WRD-090 or placement in WRD-098

OC HYB LCT	<b>HST-101-01</b>	<b>326042 W</b>			<b>10-11:50 AM</b>	
	P. MCFARLAND	\$492.00	\$52.00	\$0.00	\$544.00	
	Online textbook provided first day.					

**HST-102 HISTORY OF WESTERN CIVILIZATION, 4 CREDITS**

Origins and development of Western Civilization with an emphasis on Europe from ca. 1300 to 1800.

**Recommended Prerequisites:** WRD-090 or placement in WRD-098

ONL LCT	<b>HST-102-01</b>	<b>326045</b>				
	P. MCFARLAND	\$492.00	\$52.00	\$0.00	\$544.00	
	Online textbook provided first day.					

**HST-103 HISTORY OF WESTERN CIVILIZATION, 4 CREDITS**

Development of Western Civilization with an emphasis on Europe from the 19th century to the present.

**Recommended Prerequisites:** WRD-090 or placement in WRD-098

ONL LCT	<b>HST-103-01</b>	<b>326046</b>				
	P. MCFARLAND	\$492.00	\$52.00	\$0.00	\$544.00	
	Online textbook provided first day.					

**Campus Locations:**

- HAR:** Harmony Community Campus
- OC:** Oregon City Campus
- WILS:** Wilsonville Training Center
- OFF:** Other Off-Campus Location

**Distance Education Notification:**

- ONL:** Online Only
- REM:** Remote (w/ scheduled meetings)
- HYB:** In-person plus online work

**Other Coding Translations:**

- TBA:** To be arranged: contact department first class
- VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español

- LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

**HST-136 HISTORY OF POPULAR CULTURE, ENTERTAINMENT & SPORTS IN WESTERN CIVILIZATION, 4 CREDITS**

Explores the topics of popular culture, entertainment and sports in western civilization from ancient Greece to the present and relates them to the political, social, economic, intellectual and cultural trends of each time period.

**Recommended Prerequisites:** WRD-090 or placement in WRD-098

OC HYB	<b>HST-136-01</b>	<b>329374 M</b>			<b>10-11:50 AM</b>	
	P. MCFARLAND	\$492.00	\$52.00	\$0.00	\$544.00	

**HST-201 HISTORY OF THE UNITED STATES, 4 CREDITS**

Covers the period in American history from first European contact through the Age of Jackson.

**Prerequisite or Corequisite:** WRD-098 or placement in WR-121Z

**Recommended:** Sequence of HST-201, HST-202, and HST-203 is taken in order

OC	<b>HST-201-01</b>	<b>326049 TTH</b>			<b>10-11:50 AM</b>	
	J. FLOWERS	\$492.00	\$52.00	\$54.38	\$598.38	
	Online textbook included in section fees.					

ONL	<b>HST-201-02</b>	<b>326051</b>				
	J. FLOWERS	\$492.00	\$52.00	\$54.38	\$598.38	
	Online textbook included in section fees.					

**HST-202 HISTORY OF THE UNITED STATES, 4 CREDITS**

Covers the period of United States history from the Age of Jackson to World War I. Recommended that sequence is taken in order.

**Prerequisite or Corequisite:** WRD-098 or placement in WR-121Z

**Recommended Prerequisites:** Sequence of HST-201, HST-202, and HST-203 is taken in order

ONL	<b>HST-202-01</b>	<b>326053</b>				
	J. FLOWERS	\$492.00	\$52.00	\$54.38	\$598.38	
	Online textbook included in section fees.					

**HST-280 HISTORY/CWE, 2-6 CREDITS (VAR)**

Cooperative work experience. Provides students with on-the-job work experience in the field of history. Variable Credit: 2-6 credits. Required: Student Petition.

**Corequisites:** CWE-281

OC	<b>HST-280-01</b>	<b>326057</b>				
	J. FLOWERS	\$738.00	\$78.00	\$45.00	\$861.00V	
	Required: Student Petition. Corequisite: Take 1 of the following CWE-281-06.					

**Horticulture/Arboriculture/Landscape/Organic Farming**

*For more information call 503-594-3292 or email [lorettam@clackamas.edu](mailto:lorettam@clackamas.edu).*

**HOR-111 HORTICULTURE PRACTICUM/FALL, 2 CREDITS**

Practical experience with seasonal horticulture activities in the areas of container nurseries, greenhouses, landscape management, arboriculture, and organic food production.

OC	<b>HOR-111-01</b>	<b>325948 M</b>			<b>8-11:50 AM</b>	
	F. KILDERS	\$246.00	\$26.00	\$45.00	\$317.00	
	G. LOEFFLER					

**HOR-113 ORGANIC FARMING PRACTICUM/FALL, 3 CREDITS**

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

Essential organic farming practices, including seasonal activities such as crop rotation, cover cropping, four-season production strategies, soil testing, and calculating soil amendment needs. Class lecture, field trips, and lab are all included components of this course. This format has been selected to create a hands-on experience for each student in seasonal crop production.

OC LCT	<b>HOR-113-01</b>	<b>325952 T</b>			<b>8-11:50 AM</b>	
	C. KONIECZKA	\$369.00	\$39.00	\$75.00		\$483.00

**HOR-115 HORTICULTURE SAFETY, 1 CREDIT**

Overview of safe practices in the horticulture workplace which will reduce the chance for accidents and injuries.

ONL LCT	<b>HOR-115-01</b>	<b>325955</b>				
	J. WENTWORTH-PLATO	\$123.00	\$13.00	\$15.00		\$151.00
	Meets: Online 9/25-10/27.					

**HOR-124 FOOD HARVEST, 3 CREDITS**

This course provides a basic knowledge of aspects of harvesting, handling, storing, and marketing of produce from small-scale, organic operations. Topics include: food safety laws and practices, harvest and storage requirements for a variety of crops, factors that impact quality and storage ability, post-harvest biology, Organic certification standards, and regulations for selling value added products. Students in this class will be actively harvesting, washing, packing, and selling produce from the Student Organic Farm.

OC LCT	<b>HOR-124-01</b>	<b>325956 W</b>			<b>8-11:50 AM</b>	
	D. ROSTAD	\$369.00	\$39.00	\$75.00		\$483.00

**HOR-130 PLANT PROPAGATION TECHNIQUES, 3 CREDITS**

Covers plant anatomy and reproduction techniques of plants from seed, cuttings, grafting, division, and micro-propagation (tissue culture). Offers an in-depth overview of plant propagation practices.

OC LCT	<b>HOR-130-01</b>	<b>325957 TH</b>			<b>8-11:50 AM</b>	
	F. KILDERS	\$369.00	\$39.00	\$35.00		\$443.00

**HOR-140 SOILS, 3 CREDITS**

Soil characteristics and management, including nutritional elements and the relationship between the soil and plant growth.

OC LCT	<b>HOR-140-01</b>	<b>325960 TH</b>			<b>1-3:50 PM</b>	
	D. FRANEK	\$369.00	\$39.00	\$65.00		\$473.00

**HOR-223 APPLIED PLANT SCIENCE, 4 CREDITS**

An overview of the practical aspects of plant growth and development, classification systems, plant breeding and environmental factors in managing plant growth.

OC LCT	<b>HOR-223-01</b>	<b>325962 MW</b>			<b>1-2:50 PM</b>	
	C. KONIECZKA	\$492.00	\$52.00	\$55.00		\$599.00

**HOR-224 LANDSCAPE INSTALLATION, 3 CREDITS**

Materials and practices in landscape installation, including plan reading, materials take-off, estimating, bidding, scheduling, grading, construction materials, and plant installation. Provides an overview of Oregon state landscape contracting and licensing requirements.

**Recommended Prerequisites:** MTH-050

OC	<b>HOR-224-01</b>	<b>325966 T</b>			<b>1-4:50 PM</b>	
	A. CHASTAIN	\$369.00	\$39.00	\$60.00		\$468.00

**HOR-225 ARBORICULTURE I, 3 CREDITS**

**Campus Locations:**

- HAR:** Harmony Community Campus
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- VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español

**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

Management of trees in residential, commercial, and urban landscapes. Follows course materials prepared by the International Society of Arboriculture (ISA). Topics covered include tree anatomy, selection, installation, response to damage, soil characteristics, pruning techniques and diagnosis of pest problems. Prepares student for Arboriculture II.

OC HYB	<b>HOR-225-01</b>	<b>325971 TH</b>			<b>3-4:30 PM</b>	
	J. WENTWORTH-PLATO	\$369.00	\$39.00	\$25.00		\$433.00
	Hybrid. Meets: Thursdays; additional hours online.					

**HOR-226 PLANT IDENTIFICATION/FALL, 4 CREDITS**

Identification of deciduous trees, shrubs, and groundcovers, including their cultural requirements in the landscape. Oregon State University transfer course.

OC LCT	<b>HOR-226-01</b>	<b>325973 T</b>			<b>8-11:50 AM</b>	
	F. KILDERS	\$492.00	\$52.00	\$45.00		\$589.00
OC HYB LCT	<b>HOR-226-02</b>	<b>325976 W</b>			<b>6-8:30 PM</b>	
	J. WENTWORTH-PLATO	\$492.00	\$52.00	\$15.00		\$559.00
	Hybrid. Meets: Wednesdays; additional hours online.					

**HOR-235 WEED IDENTIFICATION, 2 CREDITS**

Identification and life cycles of weeds commonly found in landscapes, nurseries, and farms.

REM LCT	<b>HOR-235-01</b>	<b>325978 T</b>			<b>6-7:50 PM</b>	
	F. KILDERS	\$246.00	\$26.00	\$20.00		\$292.00
	Meets: Remote 9/25-10/24 on day and time listed.					

**HOR-236 INSECT IDENTIFICATION, 2 CREDITS**

Develop skills to identify common pest and insect life stages that damage or benefit plants in the landscape, farm, and greenhouse.

OC LCT	<b>HOR-236-01</b>	<b>325981 T</b>			<b>6-7:50 PM</b>	
	J. WENTWORTH-PLATO	\$246.00	\$26.00	\$40.00		\$312.00
	Meets: 10/31-11/28.					

**HOR-252 KITCHEN HERBS, 1 CREDIT**

Instruction will focus on how to use common herbs and spices in a variety of edible forms.

OC LCT	<b>HOR-252-01</b>	<b>325982 F</b>			<b>8-11:50 AM</b>	
	D. ROSTAD	\$123.00	\$13.00	\$65.00		\$201.00
	Meets: 9/29-10/27.					

**HOR-262 TREEWORX PRACTICUM I, 2 CREDITS**

Experience with the implementation of basic requirements, equipment and techniques employed by arborists who work aloft. Covers personal protective equipment, safe operation, and common cutting techniques in accordance with current industry standards. Students operate chainsaws in a variety of field exercises, and will gain exposure to other pieces of industry equipment, such as chipper, truck and trailer, and aerial lift. Students will participate as members of a crew, gaining introductory experience in tree pruning, rigging, hardware installation, electrical hazard awareness, aerial rescue, ground work, and work site management.

**Prerequisites:** HOR-115, HOR-131, and HOR-239

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
Instructor	Tuition	Fee	Crs. Fee			
OC LCT	<b>HOR-262-01 325984 F</b>				<b>10-12:30 PM</b> <b>1-4:30 PM</b>	
J. WENTWORTH-PLATO	\$246.00	\$26.00	\$95.00			\$367.00
If you have arboriculture industry experience and wish to take this class, contact jimwp@clackamas.edu.						

**HOR-264 TREEWORK PRACTICUM II (AERIAL), 2 CREDITS**  
 Experience with the implementation of intermediate requirements, using equipment and techniques employed by arborists who work aloft. Reinforces personal protective equipment, safe operation, and common cutting techniques in accordance with current industry standards. Students operate chainsaws in a variety of field exercises, and will gain exposure to other pieces of industry equipment, such as chipper, truck and trailer, and aerial lift. Students will participate as members of a crew, gaining additional experience in tree pruning, rigging, hardware installation, electrical hazard awareness, aerial rescue, ground work, and work site management.

**Prerequisites:** HOR-262

OC LCT	HOR-264-01 325988 F					
	Tuition	Fee	Crs. Fee			
					<b>10-12:30 PM</b> <b>1-4:30 PM</b>	
J. WENTWORTH-PLATO	\$246.00	\$26.00	\$95.00			\$367.00
If you have arboriculture industry experience and wish to take this class, contact jimwp@clackamas.edu.						

**HOR-280 HORTICULTURE/CWE, 3 CREDITS**  
 On-the-job experience in the student's major course of study. Students are allowed to enroll after completing nine credits of horticulture courses. May be repeated for up to 6 credits. Required: Student Petition.

**Corequisites:** CWE-281  
**Required:** Students are expected to work a minimum of 90 job site hours

OC LCT	HOR-280-01 325989					
	Tuition	Fee	Crs. Fee			
					<b>10-11:50 AM</b>	
C. KONIECZKA	\$369.00	\$39.00	\$45.00			\$453.00
Required: Student Petition. Contact: chrisk@clackamas.edu. Corequisite: Take 1 of the following CWE-281-06.						

**HOR-281 HORTICULTURE/CWE, 6 CREDITS**  
 On-the-job experience in the student's major course of study. Students are allowed to enroll after completing nine credits of horticulture courses. May be repeated for up to 12 credits. Required: Student Petition.

**Corequisites:** CWE-281  
**Required:** Students are expected to work a minimum of 180 job site hours

OC LCT	HOR-281-01 325999					
	Tuition	Fee	Crs. Fee			
					<b>1-2:20 PM</b>	
C. KONIECZKA	\$738.00	\$78.00	\$45.00			\$861.00
Required: Student Petition. Contact: chrisk@clackamas.edu. Corequisite: Take the following CWE-281-06.						

**HOR-282 HORTICULTURE/CWE, 3 CREDITS**  
 On-the-job experience in the student's major course of study. Students are allowed to enroll after completing nine credits of horticulture courses. May be repeated for up to 6 credits. Required: Student Petition.

**Corequisites:** CWE-281  
**Required:** Students are expected to work a minimum of 90 job site hours

OC LCT	HOR-282-01 326007					
	Tuition	Fee	Crs. Fee			
					<b>1-2:20 PM</b>	
C. KONIECZKA	\$369.00	\$39.00	\$45.00			\$453.00
Required: Student Petition. Contact: chrisk@clackamas.edu. Corequisite: Take the following CWE-281-06.						

**HOR-285 ORGANIC FARMING/CWE, 3 CREDITS**

**Campus Locations:**  
**HAR:** Harmony Community Campus  
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**Other Coding Translations:**  
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**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

**Course No** **Course Title, Credits**  
**Section No** **Crs Reg.** **Days (M,T,W,Th,F,S,SU)** **Time** **Total**  
**Instructor** **Tuition** **Fee** **Crs. Fee** **Total**

On-the-job experience working with an agricultural business/farm. Students are allowed to enroll in CWE after completing nine credits of Organic Farming courses. May be repeated for up to 6 credits. Required: Student Petition.

**Corequisites:** CWE-281  
**Required:** Students are expected to work a minimum of 90 job site hours

OC LCT	HOR-285-01 326010					
	Tuition	Fee	Crs. Fee			
					<b>1-2:20 PM</b>	
C. KONIECZKA	\$369.00	\$39.00	\$45.00			\$453.00
Required: Student Petition. Contact: chrisk@clackamas.edu. Corequisite: Take the following CWE-281-06.						

**Human Services**

**HS-100 INTRODUCTION TO HUMAN SERVICES, 3 CREDITS**  
 This course provides an overview of the human services field. The course includes the history of human services with a focus on the diverse roots of the field. Students will get an overview of the various careers and educational options available in human services, as well as an opportunity to discuss the student's own abilities and goals.

OC HYB LCT	HS-100-01 326025 W					
	Tuition	Fee	Crs. Fee			
					<b>10-11:50 AM</b>	
Y. SMITH	\$369.00	\$39.00	\$0.00			\$408.00

**HS-206 TRAUMA INFORMED PRACTICES, 3 CREDITS**  
 In this course, students will learn how to recognize and respond to the impact of traumatic stress. Students will gain knowledge and skills they can infuse into their practices and act in a way that maximizes physical and psychological safety for clients and themselves. Students will understand how trauma impacts the brain, body, as well as development. Topics such as vicarious trauma, cultural trauma, and secondary trauma will be examined and discussed.

**Recommended Prerequisites:** CJA-101 or HS-100 or any other 100-level course that discusses human behavior, development, or social interactions

ONL	HS-206-01 326029					
	Tuition	Fee	Crs. Fee			
					<b>1-2:20 PM</b>	
J. CRAWFORD	\$369.00	\$39.00	\$0.00			\$408.00

**HS-210 MOTIVATIONAL INTERVIEWING, 3 CREDITS**  
 Students taking this course will learn a client-centered approach to working with a variety of populations that are ambivalent towards change or are even mandated to make a change (court-ordered populations). Motivational Interviewing is recognized as a core component of various interventions service providers use, including those in substance abuse/addiction services, mental health, primary healthcare, education, and criminal justice. These skills include interviewing and listening, identifying ambivalence and change talk, strengthening resolve to change, and internal motivation of populations served.

**Recommended Prerequisites:** HS-156

OC HYB	HS-210-01 329429 TH					
	Tuition	Fee	Crs. Fee			
					<b>1-2:20 PM</b>	
J. CRAWFORD	\$369.00	\$39.00	\$0.00			\$408.00

**HS-280 HUMAN SERVICES GENERALIST I: CWE/PRACTICUM, 2-6 CREDITS**  
 Cooperative work experience. Supervised experience in human services including but not limited to: social service; early childhood care; criminal/juvenile justice; gerontology; and other occupations. Variable Credit: 2-6 credits. May be repeated for up to 12 credits. Required: Student Petition.

**Prerequisites:** HS-170  
**Corequisites:** HS-270

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

OC HYB LCT	<b>HS-280-01</b>	<b>326031</b>				
	J. LOVELESS		\$738.00	\$78.00	\$45.00	\$861.00V
	Required: Student Petition.					

**HS-281 HUMAN SERVICES GENERALIST II: CWE/PRACTICUM, 2-6 CREDITS**

Cooperative work experience level II. Supervised experience in human services including but not limited to: social service; early childhood care; criminal/juvenile justice; gerontology; and other related occupations. Variable Credit: 2-6 credits. May be repeated for up to 12 credits. Required: Student Petition.

**Prerequisites:** HS-170

**Corequisites:** HS-270

OC HYB LCT	<b>HS-281-01</b>	<b>326035</b>				
	J. LOVELESS		\$738.00	\$78.00	\$45.00	\$861.00V
	Required: Student Petition.					

**HS-282 HUMAN SERVICES GENERALIST III: CWE/PRACTICUM, 2-6 CREDITS**

Cooperative work experience level III. Supervised experience in human services including but not limited to: social service; early childhood care; criminal/juvenile justice; gerontology, and other related occupations. Variable Credit: 2-6 credits. May be repeated for up to 12 credits. Required: Student Petition.

**Corequisites:** CWE-281

**Prerequisites:** HS-170, HS-280 or HS-281

OC HYB LCT	<b>HS-282-01</b>	<b>326037</b>				
	J. LOVELESS		\$738.00	\$78.00	\$45.00	\$861.00V
	Required: Student Petition.					

**Humanities**

**HUM-235 PERSPECTIVES ON TERRORISM, 4 CREDITS**

Examines multiple perspectives of terrorism and investigates their assumptions and beliefs. Perspectives will include historical and psychological approaches as well as those of other academic disciplines, including art, literature, religion, and philosophy.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

oc	<b>HUM-235-01</b>	<b>329281 TTH</b>			<b>1-2:50 PM</b>	
	J. FLOWERS		\$492.00	\$52.00	\$0.00	\$544.00

**Industrial Maintenance Technology**

**IMT-104 READING SCHEMATICS AND SYMBOLS, 2 CREDITS**

A basic course of study that will develop the student's understanding of reading schematics and symbols through lectures and hands-on examples.

oc	<b>IMT-104-01</b>	<b>326020 T</b>			<b>6:30 -8:20 PM</b>	
	C. CONNORS		\$246.00	\$26.00	\$102.50	\$374.50

**Journalism**

**J-211 MASS MEDIA & SOCIETY, 4 CREDITS**

This course takes students through a critical study of the production and consumption of mass media, including television, radio, books, film, news, advertising and the internet. Students also examine the economic and social organization of mass media, the growth of new media technologies, and the relationship between media and the public.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

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**ESPAÑOL:** Enseñado en español  
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Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

OC LCT	<b>J-211-01</b>	<b>325325 MW</b>			<b>10-11:50 AM</b>	
	M. JONES		\$492.00	\$52.00	\$10.00	\$554.00

**J-215 COLLEGE NEWS: WRITING & PHOTOGRAPHY, 4 CREDITS**

Students work as writers, photographers and editors on The Clackamas Print, the college's student-run news website, newspaper and social media sites. Students study and produce journalism stories and photos. In doing so, they learn different writing styles, photography rules, ethical standards of news gathering and the rights of a free press in a democracy. May be repeated for up to 8 credits.

**Recommended Prerequisites:** Placement in WR-121Z

OC LCT	<b>J-215-01</b>	<b>325326 MW</b>			<b>1-2:50 PM</b>	
	M. JONES		\$492.00	\$52.00	\$10.00	\$554.00

**J-220 PODCASTING AND VIDEO JOURNALISM, 4 CREDITS**

Students will learn to produce and publish audio and video news stories for a variety of media, including podcasting platforms, YouTube and social media.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

REM LCT	<b>J-220-01</b>	<b>325329 T</b>			<b>11-11:50 AM</b>	
	J. SONNENMAIR		\$492.00	\$52.00	\$10.00	\$554.00

Class will meet on Zoom 9/26, 10/17 & 11/14. The remainder of the class will be online.

**J-221 INTERMEDIATE PODCASTING AND VIDEO JOURNALISM, 4 CREDITS**

Students will learn intermediate skills to produce and publish audio and video news stories for a variety of media, including podcasting platforms, YouTube and social media.

**Prerequisites:** J-220 with a C or better

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

REM LCT	<b>J-221-01</b>	<b>325331 T</b>			<b>11-11:50 AM</b>	
	J. SONNENMAIR		\$492.00	\$52.00	\$10.00	\$554.00

Class will meet on Zoom 9/26, 10/17 & 11/14. The remainder of the class will be online.

**J-225 INTERMEDIATE COLLEGE NEWS: WRITING & PHOTOGRAPHY, 4 CREDITS**

Intermediate news writing and photojournalism for publication in the student-run Clackamas Print news website, newspaper and social media sites. Generate original story ideas, publish photo essays and complete more complicated interviews on multiple projects in news, arts, sports and opinion writing. Apply media ethics to social, online and print media. May be repeated for up to 8 credits.

**Prerequisites:** J-215

**Recommended Prerequisites:** Placement in WR-121Z

OC LCT	<b>J-225-01</b>	<b>325333 MW</b>			<b>1-2:50 PM</b>	
	M. JONES		\$492.00	\$52.00	\$10.00	\$554.00

**J-226 INTRODUCTION TO COLLEGE NEWS: DESIGN & PRODUCTION, 4 CREDITS**

Students work as designers and media creators for The Clackamas Print, the college's award-winning student newspaper, website and social media sites. Students design the student newspaper, create social media posts and produce related multimedia content using Adobe software and other products. May be repeated for up to 8 credits.

**Recommended Prerequisites:** Placement in WR-121Z

OC LCT	<b>J-226-01</b>	<b>325335 T</b>			<b>1-4:50 PM</b>	
	M. JONES		\$492.00	\$52.00	\$10.00	\$554.00

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
		Instructor		Tuition	Fee	Crs. Fee

**J-227 INTERMEDIATE COLLEGE NEWS: DESIGN & PRODUCTION, 4 CREDITS**

Offers students intermediate work as designers and media creators for The Clackamas Print, the college's award-winning student newspaper, website and social media sites. Students design the student newspaper, create social media posts and produce related multimedia journalism content using Adobe software and other products. May be repeated for up to 8 credits.

**Prerequisites:** J-226

OC LCT	<b>J-227-01</b>	<b>325336 T</b>				<b>1-4:50 PM</b>
	M. JONES	\$492.00	\$52.00	\$10.00		\$554.00

**J-228 ADVANCED COLLEGE NEWS: DESIGN & PRODUCTION, 4 CREDITS**

Offers students advanced work as designers and media creators for The Clackamas Print, the college's award-winning student newspaper, website and social media sites. Students design the student newspaper, create social media posts and produce related multimedia journalism content using Adobe software and other products. May be repeated for up to 8 credits.

**Prerequisites:** J-227

OC LCT	<b>J-228-01</b>	<b>325338 T</b>				<b>1-4:50 PM</b>
	M. JONES	\$492.00	\$52.00	\$10.00		\$554.00

**J-235 ADVANCED COLLEGE NEWS: WRITING & PHOTOGRAPHY, 4 CREDITS**

Advanced news writing and photography for publication online, in social media and in the student-run newspaper, The Clackamas Print. Students apply Associated Press style, use journalism ethics and cover a variety of topics and events in words and photos to build their journalism portfolios. May be repeated for up to 8 credits.

**Prerequisites:** J-225

**Recommended Prerequisites:** Placement in WR-121Z

OC LCT	<b>J-235-01</b>	<b>325339 MW</b>				<b>1-2:50 PM</b>
	M. JONES	\$492.00	\$52.00	\$10.00		\$554.00

**J-280 JOURNALISM/CWE, 2-6 CREDITS**

Cooperative work experience. Provides the student with on-the-job experience and training related to journalism. Variable Credit: 2-6 credits. Required: Student Petition.

**Corequisites:** CWE-281

ONL LCT	<b>J-280-01</b>	<b>325340</b>				
	M. JONES	\$738.00	\$78.00	\$45.00		\$861.00V
	Required: Student Petition.					

**J-280A PUBLIC RELATIONS/CWE, 2-6 CREDITS**

Cooperative work experience. Provides the student with on-the-job experience and training related to public relations. Variable Credit: 2-6 credits. Required: Student Petition.

ONL LCT	<b>J-280A-01</b>	<b>325345</b>				
	M. JONES	\$738.00	\$78.00	\$45.00		\$861.00V
	Required: Student Petition.					

**Leisure & Recreat'nal Act. Gen**

**XCED-0015 EDUCATIONAL/CULTURAL IRELAND VISIT, 0 CREDIT**

**Campus Locations:**  
**HAR:** Harmony Community Campus  
**OC:** Oregon City Campus  
**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

**Distance Education Notification:**  
**ONL:** Online Only  
**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

**Other Coding Translations:**  
**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
		Instructor		Tuition	Fee	Crs. Fee

An 11-day trip to Dublin, Derry, and Bundoran. The itinerary includes the exploration of sites significant to literature and history. Provides opportunities for cultural immersion and interaction. Lectures and tours will be led by an expert in Irish Studies. CCC instructors in Biology, Chemistry, Communication, and Sociology will accompany students and community members. Includes pre-departure information session, lodging, in-country transportation, admissions, and the majority of meals. December 7 - 19, 2022.

OC HYB	<b>XCED-0015-01 329377 TBA</b>					
	N. BRODNICKI	\$0.00	\$0.00	\$391.00		\$391.00
	L. HANN					
	K. HUGHES					
	E. LEE					

Contact: kerrieh@clackamas.edu or 503-594-3155. This course is part of the Ireland Study Abroad trip Dec 6-18-2023. Additional program costs are not included in course fee. Please see instructor for more information.

**Library**

**LIB-101 INTRODUCTION TO LIBRARY RESEARCH, 1 CREDIT**

Introduces and strengthens college-level research skills. Students will build an understanding of strategies for finding, evaluating, and using information responsibly. Prepares students for success in research-based college assignments and real-life research needs.

ONL LCT	<b>LIB-101-01 326024</b>					
	TBA	\$0.00	\$0.00	\$0.00		\$0.00
	Meets: 9/25-11/25.					
ONL LCT	<b>LIB-101-02 326026</b>					
	TBA	\$0.00	\$0.00	\$0.00		\$0.00
	Meets: 9/25-11/25.					
ONL LCT	<b>LIB-101-03 326027</b>					
	TBA	\$0.00	\$0.00	\$0.00		\$0.00
	Meets: 10/9-12/9.					

**Machine Tool Technology**

**MTT-111 MANUAL MACHINING I, 4 CREDITS**

This course is an introduction to machine tool operation and precision measurement. It covers elementary operation of drill presses, bandsaws, lathes, and milling machines. The course includes external threading.

**Recommended Prerequisite Or Corequisite:** MFG-104 and MTH-050

OC	<b>MTT-111-01 326063 MW</b>					<b>8-11:50 AM</b>
	M. FRAZIER	\$492.00	\$52.00	\$205.00		\$749.00

**MTT-121 CNC I: SET-UP AND OPERATION, 4 CREDITS**

This is the first course in the CNC sequence. Students will learn basic skills including how to properly set-up and operate both CNC milling and turning centers. Students will also learn G & M codes related to basic machine set-up and operation. Designed for persons with little or no previous CNC experience.

OC	<b>MTT-121-01 326065 TTH</b>					<b>8-11:50 AM</b>
	J. CARLSTON	\$492.00	\$52.00	\$205.00		\$749.00

**MTT-241 CAD/CAM II, 4 CREDITS**

This course is the second in the Computer-Aided Machining (CAM) series and will greatly expand the student's existing CAD/CAM skills by exploring more advanced software features and programming techniques. There will be a strong emphasis placed on the entire CAD/CAM/CNC part machining process. An introduction to 4-axis mill programming will be included.



Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

**Prerequisites:** MTT-122 and MTT-141

oc	<b>MTT-241-01</b>	<b>326068</b>	<b>TTH</b>		<b>12-3:50 PM</b>	
	C. LETTENMAIER	\$492.00	\$52.00	\$205.00	\$749.00	

**MTT-252 MACRO PROGRAMMING AND MACHINE PROBING, 3 CREDITS**

This course is an introduction to Fanuc-based, custom macro programming for individuals with some previous G&M-code programming experience. Students will learn to define and apply macro variables, program branching, macro functions and operators and implement repetitive looping. Additional topics will include custom alarms and assignment of G & M codes to macros. Students will write and prove out programs on HAAS CNC controls utilizing all basic functions of the language using Renishaw touch probes.

**Recommended Prerequisites:** Competence with basic G&M-code mill programming (FANUC/Haas-style) or MTT-123

oc	<b>MTT-252-01</b>	<b>326070</b>	<b>MW</b>		<b>1-3:50 PM</b>	
	C. LETTENMAIER	\$369.00	\$39.00	\$153.75	\$561.75	

**Manufacturing Technology**

*All degree seeking students should arrange to speak to a faculty advisor prior to registering. Call 503-594-3318 for more information, or contact Advising, 503-594-3475.*

**MFG-103 MACHINING FOR FABRICATION & MAINTENANCE, 3 CREDITS**

This course is an introduction to metal working for welders, fabricators, maintenance personnel and others who need to understand simple machining principles. Students will be introduced to precision measurement with calipers and micrometers. Combination squares, protractor dividers and scribes will be used for semi-precision layout of workpieces in preparation for machining. The elementary use of the drill press, band saw, milling machine and lathe, as well as hand tools, will be practiced during hands-on labs. A discussion of thread systems will include nomenclature, measurement, tapping, chasing and repair.

**Prerequisites:** MTH-050

oc HYB LCT	<b>MFG-103-01</b>	<b>326028</b>	<b>TTH</b>		<b>12:30 -3:20 PM</b>	
	TBA	\$369.00	\$39.00	\$153.75	\$561.75	

**MFG-104 PRINT READING, 3 CREDITS**

Introduction to basic print reading. Students will use the principles of orthographic projection and current industry standards as they apply this knowledge to interpreting manufacturing prints.

REM	<b>MFG-104-01</b>	<b>326032</b>	<b>TTH</b>		<b>3:30 -4:50 PM</b>	
	C. CONNORS	\$369.00	\$39.00	\$153.75	\$561.75	

**MFG-106 ADVANCED APPLIED GEOMETRIC DIMENSIONING AND TOLERANCING FOR MANUFACTURING, 3 CREDITS**

Introduces participants to the application of gauging and inspection using Geometric Dimensioning and Tolerancing (GDT). Students will identify inspection equipment and inspect GDT characteristics while experiencing their manufacturing implications. Variable Credit: 1-3 credits.

**Prerequisites:** MFG-104

oc HYB	<b>MFG-106-01</b>	<b>326034</b>	<b>M</b>		<b>4:30 -7:20 PM</b>	
	P. WANNER	\$369.00	\$39.00	\$153.75	\$561.75	

**MFG-107 INDUSTRIAL SAFETY & FIRST AID, 3 CREDITS**

**Campus Locations:**

- HAR:** Harmony Community Campus
- OC:** Oregon City Campus
- WILS:** Wilsonville Training Center
- OFF:** Other Off-Campus Location

**Distance Education Notification:**

- ONL:** Online Only
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- HYB:** In-person plus online work

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

This course is designed to provide the student with a basic understanding of safety hazards and first aid in the workplace. Includes eye safety, grinding wheel hazards, electrical/chemical hazards, slips, falls and back injuries. Instruction in first aid, AED and CPR and OSHA 10.

oc HYB	<b>MFG-107-01</b>	<b>326036</b>	<b>F</b>		<b>2-4:50 PM</b>	
	L. HILLYARD	\$369.00	\$39.00	\$153.75	\$561.75	

**MFG-109 COMPUTER LITERACY FOR TECHNICIANS, 3 CREDITS**

Presents the uses of computers in business and industry. Subjects covered include computer platforms, basic hardware, data communication and operating systems. Reviews & uses word processing, spreadsheet and database software for the PC.

REM	<b>MFG-109-01</b>	<b>326040</b>	<b>F</b>		<b>8-10:50 AM</b>	
	A. ARISTIZABAL	\$369.00	\$39.00	\$252.50	\$660.50	
	Online textbook included in section fees.					

**MFG-110 MANUFACTURING SPECIAL PROJECTS, 1 CREDIT**

Allows students a great deal of latitude in project selection, design & production utilizing manual machine tools, CNC machine tools, CAD/CAM and electrical discharge machines. A solid understanding of all basic machine tools is expected. Variable Credit: 1-9 credits. May be repeated for up to 9 credits. Required: Student Petition.

oc	<b>MFG-110-01</b>	<b>326043</b>	<b>MW</b>		<b>8-9:20 AM</b>	
	C. LETTENMAIER	\$123.00	\$13.00	\$51.25	\$187.25	
	Required: Student Petition.					

**MFG-130 BASIC ELECTRICITY I, 3 CREDITS**

Explores fundamentals of AC and DC electricity. Includes: atomic structure, direct current, alternating current, Ohm's law, series, parallel, and combination circuits, DC circuit theorems, production of DC voltages, magnetic principles, transformers, motors and generators.

oc	<b>MFG-130-01</b>	<b>326047</b>	<b>F</b>		<b>5-7:50 PM</b>	
	B. KARM	\$369.00	\$39.00	\$153.75	\$561.75	

**MFG-218 LEAN MANUFACTURING AND QUALITY SYSTEMS, 3 CREDITS**

This survey course provides students with literacy in the elements of quality systems including Lean Manufacturing/Six Sigma and related statistical methods. Participants will learn about the philosophy and tools that make up a lean manufacturing system. Students will become familiar with the concepts and tools of quality management which include kaizen, visual management, 5S, value stream mapping, A3 problem solving, SPC, Six Sigma, and the Toyota Production System.

oc	<b>MFG-218-01</b>	<b>326050</b>	<b>TTH</b>		<b>5-6:20 PM</b>	
	C. CONNORS	\$369.00	\$39.00	\$153.75	\$561.75	

**MFG-221 MATERIALS SCIENCE, 3 CREDITS**

Introduces metallurgy and material science. Extractive and physical metallurgy will be covered. Specific topics include heat treatment, materials analysis, the iron carbon phase diagram, composites, ceramics and industrial plastics.

**Recommended Prerequisites:** MTH-050

oc HYB	<b>MFG-221-01</b>	<b>326052</b>	<b>TTH</b>		<b>10-12:50 PM</b>	
	M. MATTSON	\$369.00	\$39.00	\$153.75	\$561.75	

**MFG-271 MASTERCAM MILL I, 4 CREDITS**

**Other Coding Translations:**

- TBA:** To be arranged: contact department first class
- VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español

**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total
		Instructor		Tuition Fee	Crs. Fee	

Covers the creation and manipulation of two and three dimensional wire frame models as well as the creating, editing, and verification of 2-1/2 axis toolpaths. A fundamental understanding of the CAD/CAM process will be gained.

REM	<b>MFG-271-01</b>	<b>326055 TTH</b>			<b>4:30 -8:20 PM</b>	
	C. LETTENMAIER		\$492.00	\$52.00	\$205.00	\$749.00

**MFG-280 MANUFACTURING TECHNOLOGY/CWE, 1-6 CREDITS**

Cooperative work experience. Practical experience in the manufacturing trades. Coordination of instruction will occur with industry and the manufacturing and cooperative work departments. Variable Credit: 1-6 credits. May be repeated for up to 6 credits. Required: Student Petition.

**Corequisites:** CWE-281

ONL	<b>MFG-280-01</b>	<b>326056</b>				
	M. MATTSON		\$738.00	\$78.00	\$80.00	\$896.00V
	Required: Student Petition. Corequisite: Take 1 of the following CWE-281-06.					

**Mathematics**

**MTH-050 TECHNICAL MATHEMATICS I, 4 CREDITS**

Designed for career-technical students. Topics focus on critical thinking, problem solving, and mathematical communication using applications arithmetic, measurement, geometry, and statistics and probability.

**Prerequisites:** MTH-020 with a C or better, or placement in MTH-050 or higher

OC HYB LCT	<b>MTH-050-01</b>	<b>326077 T</b>			<b>9-11:50 AM</b>	
	M. CHASE		\$492.00	\$52.00	\$20.00	\$564.00
OC HYB LCT	<b>MTH-050-02</b>	<b>326080 W</b>			<b>1-3:50 PM</b>	
	M. CHASE		\$492.00	\$52.00	\$20.00	\$564.00
OC HYB LCT	<b>MTH-050-03</b>	<b>326083 TH</b>			<b>6-8:50 PM</b>	
	A. BRANDENBURG		\$492.00	\$52.00	\$20.00	\$564.00

**MTH-050ES MATEMÁTICAS TÉCNICAS I, 4 CREDITS**

Este curso está diseñado para estudiantes de carreras técnicas. Los temas se centran en el pensamiento crítico, la resolución de problemas y la comunicación matemática utilizando aplicaciones de aritmética, mediciones, geometría, estadística y probabilidades.

**Prerequisites:** MTH-020 con una C o mejor, o ubicación en MTH-050 o superior

REM LCT ESPAÑOL	<b>MTH-050ES-01</b>	<b>326084 F</b>			<b>5-8:50 PM</b>	
	A. ARISTIZABAL		\$492.00	\$52.00	\$20.00	\$564.00

**MTH-060 ALGEBRA I, 4 CREDITS**

Designed for review or for the beginner, this course is an introduction to topics in Algebra. Expressions, equations, inequalities, graphing, and functions are explored.

**Prerequisites:** MTH-020 with a C or better, or placement in MTH-060

OC HYB LCT	<b>MTH-060-01</b>	<b>326091 TH</b>			<b>1-3:50 PM</b>	
	M. PARTNOF		\$492.00	\$52.00	\$20.00	\$564.00
ONL LCT	<b>MTH-060-10</b>	<b>326101</b>				
	M. PARTNOF		\$492.00	\$52.00	\$20.00	\$564.00
HAR HYB LCT	<b>MTH-060-30</b>	<b>326103 MW</b>			<b>9-10:50 AM</b>	
	A. ARISTIZABAL		\$492.00	\$52.00	\$20.00	\$564.00
HAR HYB LCT	<b>MTH-060-31</b>	<b>326105 TTH</b>			<b>6-7:50 PM</b>	
	B. WEBBER		\$492.00	\$52.00	\$20.00	\$564.00

**Campus Locations:**  
**HAR:** Harmony Community Campus  
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**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

**Distance Education Notification:**  
**ONL:** Online Only  
**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

**Other Coding Translations:**  
**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total
		Instructor		Tuition Fee	Crs. Fee	

**MTH-065 ALGEBRA II, 4 CREDITS**

The second term of topics in algebra using the rule-of-four approach: graphs, tables, words, and equations. This course emphasizes algebraic skills, as well as problem solving and graphical techniques with the use of a graphing utility.

**Prerequisites:** MTH-060 with a C or better, or placement in MTH-065

OC HYB LCT	<b>MTH-065-01</b>	<b>326106 TTH</b>			<b>10-11:20 AM</b>	
	A. HALL		\$492.00	\$52.00	\$20.00	\$564.00
OC HYB LCT	<b>MTH-065-02</b>	<b>326111 MW</b>			<b>1-2:20 PM</b>	
	A. ARISTIZABAL		\$492.00	\$52.00	\$20.00	\$564.00
OC HYB LCT	<b>MTH-065-03</b>	<b>326112 TH</b>			<b>1-3:50 PM</b>	
	A. HALL		\$492.00	\$52.00	\$20.00	\$564.00
ONL LCT	<b>MTH-065-10</b>	<b>326115</b>				
	K. LEWANDOWSKI		\$492.00	\$52.00	\$20.00	\$564.00
HAR HYB LCT	<b>MTH-065-30</b>	<b>326119 MW</b>			<b>9-10:50 AM</b>	
	A. ARISTIZABAL		\$492.00	\$52.00	\$20.00	\$564.00
HAR HYB LCT	<b>MTH-065-31</b>	<b>326120 TTH</b>			<b>6-7:50 PM</b>	
	B. WEBBER		\$492.00	\$52.00	\$20.00	\$564.00

**MTH-082A WASTEWATER MATH I, 1 CREDIT**

Quantitative component to understanding wastewater operations. Simple unit conversions, fraction to decimal conversions and more complicated problem solving as applied to wastewater preliminary & primary treatment.

**Corequisites:** WET-110

OC HYB	<b>MTH-082A-01</b>	<b>326058 M</b>			<b>5-5:50 PM</b>	
	M. LAFORCE		\$123.00	\$13.00	\$0.00	\$136.00

**MTH-082B WATERWORKS MATH I, 1 CREDIT**

Problem solving for waterworks applications. Introduction to basic algebra and mathematical concepts, conversions, and calculations encountered in the waterworks industry.

**Corequisites:** WET-111

OC HYB	<b>MTH-082B-01</b>	<b>326059 T</b>			<b>5-5:50 PM</b>	
	J. NURMI		\$123.00	\$13.00	\$0.00	\$136.00

**MTH-082E MATH FOR HIGH PURITY WATER, 1 CREDIT**

Basic math for high purity water concepts. Measurement accuracy, rounding rules & errors, significant figures, scientific notation, metric prefixes, simple statistics, average & standard deviation of a population.

**Corequisites:** WET-125

REM	<b>MTH-082E-01</b>	<b>326061 W</b>			<b>2-2:50 PM</b>	
	G. CARR		\$123.00	\$13.00	\$0.00	\$136.00

**MTH-095 ALGEBRA III, 4 CREDITS**

The third term of topics in algebra using the rule-of-four approach is designed to prepare students for transfer-level math courses. This course emphasizes problem-solving and graphical techniques with the use of a graphing utility.

**Prerequisites:** MTH-065 with a C or better, or placement in MTH-095

OC HYB LCT	<b>MTH-095-01</b>	<b>326122 TTH</b>			<b>10-11:20 AM</b>	
	J. HEVEL		\$492.00	\$52.00	\$20.00	\$564.00
OC HYB LCT	<b>MTH-095-02</b>	<b>326125 MW</b>			<b>1-2:20 PM</b>	
	H. ABBOTT		\$492.00	\$52.00	\$20.00	\$564.00
OC HYB LCT	<b>MTH-095-03</b>	<b>326127 T</b>			<b>1-3:50 PM</b>	
	E. MEUSER		\$492.00	\$52.00	\$20.00	\$564.00
OC HYB LCT	<b>MTH-095-04</b>	<b>326130 W</b>			<b>9-11:50 AM</b>	
	H. ABBOTT		\$492.00	\$52.00	\$20.00	\$564.00

Course No	Course Title, Credits	Section No	Cr. Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor			Tuition	Fee	Cr. Fee
ONL LCT	<b>MTH-095-10 326134</b>	T. LEWANDOWSKI		\$492.00	\$52.00	\$20.00
ONL LCT	<b>MTH-095-11 326136</b>	T. LEWANDOWSKI		\$492.00	\$52.00	\$20.00
HAR HYB LCT	<b>MTH-095-30 326137 W</b>					<b>6-8:50 PM</b>
	T. LEWANDOWSKI			\$492.00	\$52.00	\$20.00

**MTH-098 COLLEGE MATH FOUNDATIONS, 4 CREDITS**

In our society, we see and hear about important topics and trends that involve numbers. In this class, participants work to understand what these numbers mean. Students will use percentages to make comparisons, interpret and construct graphs to describe phenomena, compare ways of describing quantities through unit conversions, explore the ways we use the idea of average, and use rates and ratios to describe how things grow and change. Learning happens in small student groups, using technology, and through writing. The class is project-based, meaning that students complete projects to demonstrate what they've learned.

**Prerequisites:** MTH-020 with a C or better, or placement in MTH-050, MTH-060, or MTH-098

OC HYB LCT	<b>MTH-098-01 326139 TTH</b>	TBA		\$492.00	\$52.00	\$20.00	<b>10-11:20 AM</b>
OC HYB LCT	<b>MTH-098-02 326143 MW</b>	T. BIEBER		\$492.00	\$52.00	\$20.00	<b>1-2:20 PM</b>
ONL LCT	<b>MTH-098-10 326144</b>	K. AMREIN		\$492.00	\$52.00	\$20.00	
ONL LCT	<b>MTH-098-11 326145</b>	K. MERCER		\$492.00	\$52.00	\$20.00	

**MTH-105Z MATH IN SOCIETY, 4 CREDITS**

An exploration of present-day applications of mathematics focused on developing numeracy. Major topics include quantitative reasoning and problem-solving strategies, probability and statistics, and financial mathematics; these topics are to be weighted approximately equally. This course emphasizes mathematical literacy and communication, relevant everyday applications, and the appropriate use of current technology.

**Prerequisites:** MTH-095 or MTH-098 with a C or better, or placement in MTH-111Z

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

OC HYB LCT	<b>MTH-105Z-01 326149 MW</b>	M. YANNOTTA		\$492.00	\$52.00	\$20.00	<b>10-11:20 AM</b>
OC HYB LCT	<b>MTH-105Z-02 326157 TTH</b>	E. MEUSER		\$492.00	\$52.00	\$20.00	<b>10-11:20 AM</b>
OC HYB LCT	<b>MTH-105Z-03 326159 TTH</b>	K. AMREIN		\$492.00	\$52.00	\$20.00	<b>1-2:20 PM</b>
ONL LCT	<b>MTH-105Z-10 326160</b>	K. AMREIN		\$492.00	\$52.00	\$20.00	
ONL LCT	<b>MTH-105Z-11 326161</b>	M. YANNOTTA		\$492.00	\$52.00	\$20.00	

**MTH-111Z PRECALCULUS I: FUNCTIONS, 4 CREDITS**

A course primarily designed for students preparing for trigonometry or calculus. This course focuses on functions and their properties, including polynomial, rational, exponential, logarithmic, piecewise-defined, and inverse functions. These topics will be explored symbolically, numerically, and graphically in real-life applications and interpreted in context. This course emphasizes skill building, problem solving, modeling, reasoning, communication, connections with other disciplines, and the appropriate use of present-day technology.

**Prerequisites:** MTH-095 with a C or better, or placement in MTH-111Z

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

Course No	Course Title, Credits	Section No	Cr. Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total	
	Instructor			Tuition	Fee	Cr. Fee	
OC HYB LCT	<b>MTH-111Z-01 326165 T</b>	M. YANNOTTA		\$492.00	\$52.00	\$20.00	<b>8-10:50 AM</b>
OC HYB LCT	<b>MTH-111Z-02 326169 M</b>	M. PRICE		\$492.00	\$52.00	\$20.00	<b>9-11:50 AM</b>
OC HYB LCT	<b>MTH-111Z-03 326170 TTH</b>	S. PRUYN		\$492.00	\$52.00	\$20.00	<b>10-11:20 AM</b>
OC HYB LCT	<b>MTH-111Z-04 326171 MW</b>	F. CARTER		\$492.00	\$52.00	\$20.00	<b>1-2:20 PM</b>
ONL LCT	<b>MTH-111Z-10 326174</b>	H. ABBOTT		\$492.00	\$52.00	\$20.00	
ONL LCT	<b>MTH-111Z-11 326175</b>	S. PRUYN		\$492.00	\$52.00	\$20.00	
HAR HYB LCT	<b>MTH-111Z-30 326177 W</b>						<b>6-8:50 PM</b>
	A. BRANDENBURG			\$492.00	\$52.00	\$20.00	

**MTH-112Z PRECALCULUS II: TRIGONOMETRY, 4 CREDITS**

A course primarily designed for students preparing for calculus and related disciplines. This course explores trigonometric functions and their applications as well as the language and measurement of angles, triangles, circles, and vectors. These topics will be explored symbolically, numerically, and graphically in real-life applications and interpreted in context. This course emphasizes skill building, problem solving, modeling, reasoning, communication, connections with other disciplines, and the appropriate use of present-day technology.

**Prerequisites:** MTH-111Z with a C or better, or placement in MTH-112Z

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

OC HYB LCT	<b>MTH-112Z-01 326180 MW</b>	E. KELLY		\$492.00	\$52.00	\$20.00	<b>10-11:50 AM</b>
OC HYB LCT	<b>MTH-112Z-03 326183 TTH</b>	TBA		\$492.00	\$52.00	\$20.00	<b>1-2:50 PM</b>
ONL LCT	<b>MTH-112Z-10 326186</b>	M. PRICE		\$492.00	\$52.00	\$20.00	
HAR HYB LCT	<b>MTH-112Z-30 326188 M</b>						<b>6-8:50 PM</b>
	C. WARNER			\$492.00	\$52.00	\$20.00	

**MTH-211 FUNDAMENTALS OF ELEMENTARY MATH I, 4 CREDITS**

A course designed to teach students to understand the basic concepts of mathematics and provide ideas for teaching these concepts to elementary school children. Focuses on math anxiety and mindset, problem-solving, and arithmetic. MTH-211, 212, and 213 can be taken in any order.

**Prerequisites:** MTH-095 with a C or better, or placement in MTH-111Z

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

REM LCT	<b>MTH-211-01 326190 TTH</b>	E. KELLY		\$492.00	\$52.00	\$20.00	<b>1-2:50 PM</b>
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**MTH-213 FUNDAMENTALS OF ELEMENTARY MATH III, 4 CREDITS**

A course designed to teach students to understand the basic concepts of mathematics and provide ideas for teaching these concepts to elementary school children. Focuses on geometry. MTH-211, 212, and 213 can be taken in any order.

**Prerequisites:** MTH-095 with a C or better, or placement in MTH-111Z

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

REM LCT	<b>MTH-213-30 329251 MW</b>	C. FANNING		\$492.00	\$52.00	\$20.00	<b>6-7:50 PM</b>
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**MTH-244 STATISTICS II, 4 CREDITS**

The tools learned in Statistics I are purposed for inference of data via the use of hypothesis tests and confidence intervals for both one and two populations, linear regression, and chi-square tests.

**Campus Locations:**

**HAR:** Harmony Community Campus  
**OC:** Oregon City Campus  
**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

**Distance Education Notification:**

**ONL:** Online Only  
**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

**Other Coding Translations:**

**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español

**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

**Prerequisites:** STAT-243Z with a C or better  
**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

OC HYB LCT	<b>MTH-244-01</b>	<b>326206 T</b>			<b>6-8:50 PM</b>	
	A. BRANDENBURG	\$492.00	\$52.00	\$20.00		\$564.00

**MTH-251 CALCULUS I, 5 CREDITS**

For science, engineering, and mathematics students, this is the first course in the four-term Calculus sequence. Focuses on the analysis of functions using limits and differential calculus. Emphasis on applying calculus concepts and techniques to model and solve appropriate real-world applications.

**Prerequisites:** MTH-112Z with a C or better, or placement in MTH-251  
**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

OC HYB LCT	<b>MTH-251-01</b>	<b>326208 TTH</b>			<b>10-11:50 AM</b>	
	B. HSIAO	\$615.00	\$65.00	\$20.00		\$700.00
OC HYB LCT	<b>MTH-251-02</b>	<b>326213 MW</b>			<b>1-2:50 PM</b>	
	E. KELLY	\$615.00	\$65.00	\$20.00		\$700.00
ONL LCT	<b>MTH-251-10</b>	<b>326214</b>				
	B. HSIAO	\$615.00	\$65.00	\$20.00		\$700.00

**MTH-252 CALCULUS II, 5 CREDITS**

For science, engineering, and mathematics students, this is the second course in the four-term Calculus sequence. Focuses on understanding integral calculus and using anti-differentiation techniques. Emphasis on applying the calculus to model and solve appropriate real-world applications.

**Prerequisites:** MTH-251 with a C or better  
**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

OC HYB LCT	<b>MTH-252-01</b>	<b>326217 MW</b>			<b>10-11:50 AM</b>	
	M. PARTNOF	\$615.00	\$65.00	\$20.00		\$700.00
OC HYB LCT	<b>MTH-252-02</b>	<b>326221 TTH</b>			<b>1-2:50 PM</b>	
	S. PRUYN	\$615.00	\$65.00	\$20.00		\$700.00

**MTH-253 CALCULUS III, 5 CREDITS**

Investigates indeterminate forms, improper integrals, convergence of sequences and series, power series, Taylor series and Taylor polynomials, error analysis of numerical estimates, complex numbers and the Euler formula, parametric equations, vectors, dot products, and the geometry of lines and planes in space.

**Prerequisites:** MTH-252 with a C or better  
**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

OC HYB LCT	<b>MTH-253-01</b>	<b>326224 T</b>			<b>1-3:50 PM</b>	
	C. KYSER	\$615.00	\$65.00	\$20.00		\$700.00

**MTH-254 VECTOR CALCULUS, 5 CREDITS**

This course is an introduction to the study of vectors and analytic geometry in three-space, the calculus of vector-valued functions, and the calculus of several variables.

**Prerequisites:** MTH-252 with a C or better

OC HYB LCT	<b>MTH-254-01</b>	<b>326226 W</b>			<b>9-11:50 AM</b>	
	A. HALL	\$615.00	\$65.00	\$20.00		\$700.00

**MTH-261 LINEAR ALGEBRA, 4 CREDITS**

This course is an introduction to linear analysis of n-space: systems of linear equations, vectors, matrices, matrix operations, linear transformations, linear independence, span, bases, subspaces, determinants, eigenvalues, eigenvectors, inner products, diagonalization, and applications of these topics.

**Prerequisites:** MTH-252 with a C or better  
**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

**Campus Locations:**  
**HAR:** Harmony Community Campus  
**OC:** Oregon City Campus  
**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

**Distance Education Notification:**  
**ONL:** Online Only  
**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

**Other Coding Translations:**  
**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

OC HYB LCT	<b>MTH-261-01</b>	<b>326229 MW</b>			<b>3-4:20 PM</b>	
	F. CARTER	\$492.00	\$52.00	\$20.00		\$564.00

**Medical Assistant**

For more information, contact Health Sciences at [healthsciences@clackamas.edu](mailto:healthsciences@clackamas.edu)

**MA-110 MEDICAL TERMINOLOGY, 4 CREDITS**

This course provides the foundational principles required for understanding medical terms used to communicate effectively within the healthcare field. This includes word meaning and discerning the difference between look-alike and sound-alike words through correct spelling and pronunciation. Students will develop the ability to read and comprehend the content of medical records and reports. Through the review of body systems this course includes introductions to disease processes, basic anatomy and physiology and associated terminology. This course is required prerequisite for Medical Assistant and Clinical Laboratory Assistant students.

ONL	<b>MA-110-01</b>	<b>325142</b>				
	T. BOYD	\$492.00	\$52.00	\$60.00		\$604.00
ONL	<b>MA-110-02</b>	<b>325143</b>				
	T. BOYD	\$492.00	\$52.00	\$60.00		\$604.00
ONL	<b>MA-110-03</b>	<b>325145</b>				
	T. BOYD	\$492.00	\$52.00	\$60.00		\$604.00

**MA-112 MEDICAL OFFICE PRACTICES, 4 CREDITS**

Focuses on administrative skills performed by the Medical Assistant in the ambulatory care setting. The course examines medical law and ethics, bioethics, principles of confidentiality and medical office function. Required: Student Petition.

**Prerequisites:** BI-120, or BI-101 & BI-102, or BI-231 & BI-232 & BI-233  
**Prerequisites:** MA-110, and WR-101 or WR-121Z

**Corequisites:** MA-116 and MA-145  
**Required:** Student must be enrolled in current Medical Assistant cohort

HAR HYB	<b>MA-112-01</b>	<b>325146 W</b>			<b>10-11:50 AM</b>	
	S. PARKER	\$492.00	\$52.00	\$152.00		\$696.00
	Restricted: Limited to current MA cohort. Required: Student Petition.					

**MA-113 SEMINAR I, 2 CREDITS**

This course introduces professionalism in the healthcare setting and explores clinical placement opportunities. Students will demonstrate compliance with Oregon Health Authorities rules for students in clinical training and obtain volunteer experience with a community partner. Required: Student Petition.

**Prerequisites:** BI-120, or BI-101 & BI-102, or BI-231 & BI-232 & BI-233  
**Prerequisites:** MA-110, and WR-101 or WR-121Z

**Corequisites:** MA-112, MA-116 and MA-145  
**Required:** Student must be enrolled in current Medical Assistant cohort

HAR HYB	<b>MA-113-01</b>	<b>329254 W</b>			<b>9-9:50 AM</b>	
	S. PARKER	\$246.00	\$26.00	\$0.00		\$272.00
	Restricted: Limited to current MA cohort. Required: Student Petition.					

**MA-116 INTRODUCTION TO MEDICATIONS, 4 CREDITS**

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

Introduces the medical assistant student to the foundational concepts and principles of pharmacology; including the classifications of common medications including: indications for use, desired effect, side effect, adverse effects, and patient education. Related pathophysiology will be discussed. Required: Student Petition.

**Prerequisites:** BI-120, or BI-101 & BI-102, or BI-231 & BI-232 & BI-233  
**Prerequisites:** MA-110, and WR-101 or WR-121Z  
**Corequisites:** MA-112 and MA-145  
**Required:** Student must be enrolled in current Medical Assistant cohort

HAR HYB	<b>MA-116-01</b>	<b>325147 T</b>			<b>1-2:50 PM</b>	
	S. DAVENPORT	\$492.00	\$52.00	\$115.79	\$659.79	

Required: Student Petition. Online textbook included in section fees.

**MA-145 INSURANCE & HEALTH INFORMATION MANAGEMENT, 5 CREDITS**

This course introduces medical assisting students to practical applications for billing medical insurance both manually and electronically. The course is designed to instruct the student in all phases of billing and insurance procedures and entry level Electronic Health Record software for the management of medical records. It also teaches Front Office finance skills including bookkeeping, banking and collections. The students are also introduced to basic ICD-10 Diagnosis and Procedural coding skills. This course is required for medical assistant students. This course does not meet the requirements for Insurance Coder certification. Required: Student Petition.

**Prerequisites:** BI-120, or BI-101 & BI-102, or BI-231 & BI-232 & BI-233  
**Prerequisites:** MA-110, and WR-101 or WR-121Z  
**Corequisites:** MA-112 and MA-116  
**Required:** Student must be enrolled in current Medical Assistant cohort

HAR HYB	<b>MA-145-01</b>	<b>325148 TTH</b>			<b>9-11:50 AM</b>	
	S. PARKER	\$615.00	\$65.00	\$55.00	\$735.00	

Restricted to current MA cohort students. Required: Student Petition.

**Music**

**MUP-102 WIND ENSEMBLE, 2 CREDITS**

For non-majors and music majors. Introduction and study of traditional and contemporary band literature. This course is taken each term in one's first year of a two-year course of study that includes performance, study of common styles and practices of historically and culturally significant composers/arrangers, and study of historical issues related to the development and performance of band literature. Provides a thorough groundwork in the fundamental ideas, techniques, and practices of band music and ensemble performance. No audition required. May be repeated for up to 6 credits.

**Required:** Completion of high school or high school performance level. Ability to read music and play a band instrument

OC LCT	<b>MUP-102-01</b>	<b>325162 TTH</b>			<b>3-4:50 PM</b>	
	L. CAMPBELL	\$246.00	\$26.00	\$0.00	\$272.00	

**MUP-104 PEP BAND/COMBO-IMPROV, 1 CREDIT**

Instrumental performing group concentrating on rock, pop, and contemporary styles in the small to medium-sized group setting. No audition required. May be repeated for up to 8 credits.

**Recommended Prerequisites:** MUP-105 or MUP-125

OC LCT	<b>MUP-104-01</b>	<b>325163 M</b>			<b>2-2:50 PM</b>	
	C. DOGGETT	\$123.00	\$13.00	\$0.00	\$136.00	

**MUP-105 JAZZ ENSEMBLE, 2 CREDITS**

**Campus Locations:**  
**HAR:** Harmony Community Campus  
**OC:** Oregon City Campus  
**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

**Distance Education Notification:**  
**ONL:** Online Only  
**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

For non-majors and music majors. Introduction and study of common 'big-band' and small-group jazz styles. This course is taken each term in one's first year of a two-year course of study that includes performance, improvisation, musical arranging and writing, study of common styles and practices of historically and culturally significant jazz artists, and study of historical issues related to the development and performance of jazz music. May be repeated for up to 6 credits.

**Recommended Prerequisites:** MUP-102

OC LCT	<b>MUP-105-01</b>	<b>325164 MW</b>			<b>3-4:50 PM</b>	
	L. CAMPBELL	\$246.00	\$26.00	\$0.00	\$272.00	

**MUP-122 CHAMBER CHOIR, 2 CREDITS**

Select vocal ensemble which rehearses and performs choral music from the Renaissance to the 21st century. Provides preparation for entering professional fields of music and performance. Emphasis on a cappella singing applied to appropriate chamber music. Recommended for vocal music majors. Enrollment by audition. May be repeated for up to 6 credits.

**Recommended:** A desire to sing in a large and fun ensemble. An interest in exploring the roots of American music

OC LCT	<b>MUP-122-01</b>	<b>325165 TTH</b>			<b>3-4:50 PM</b>	
	K. HOLLINGSWORTH	\$246.00	\$26.00	\$52.00	\$324.00	

**MUP-125 VOCAL JAZZ ENSEMBLE: MAINSTREAM, 2 CREDITS**

Performing ensemble that cultivates musical, professional, and personal growth through rehearsal and performance with rhythm section of jazz, rock, pop, funk, and fusion. Includes study of jazz as it applies to vocal ensemble combined with rhythm section. Emphasis on style, improvisation, and techniques. Enrollment by audition. May be repeated for up to 6 credits.

OC LCT	<b>MUP-125-01</b>	<b>325166 MW</b>			<b>3-4:50 PM</b>	
	K. HOLLINGSWORTH	\$246.00	\$26.00	\$52.00	\$324.00	

**MUP-141 COLLEGE ORCHESTRA, 1 CREDIT**

Performance and study of orchestral literature. College students may earn credit for playing in one of several approved orchestral groups. Minimum of one performance per term. May be repeated for up to 8 credits. Required: Student Petition.

OC LCT	<b>MUP-141-01</b>	<b>325167 TBA</b>				
	L. CAMPBELL	\$123.00	\$13.00	\$0.00	\$136.00	

Required: Student Petition.

**MUP-150 CONTEMPORARY MUSIC ENSEMBLE, 2 CREDITS**

Studies the development and performance of original compositions through intensive musical collaboration and creation. May be repeated for up to 12 credits.

**Required:** Pass proficiency audition

OC LCT	<b>MUP-150-01</b>	<b>325168 MW</b>			<b>1-2:50 PM</b>	
	K. HOLLINGSWORTH	\$246.00	\$26.00	\$50.00	\$322.00	

**MUP-158 CHAMBER ENSEMBLE, 1 CREDIT**

Rehearsal and performance of traditional vocal and instrumental chamber music (one musician per part). Includes concerts and coaching by area professionals. Highly recommended for music majors. May be repeated for up to 8 credits. First of a two-part series.

OC LCT	<b>MUP-158-01</b>	<b>325169 TH</b>			<b>1-2:50 PM</b>	
	D. TUTMARK	\$123.00	\$13.00	\$85.00	\$221.00	

Guitar Ensemble.

**MUP-202 WIND ENSEMBLE, 2 CREDITS**

**Other Coding Translations:**  
**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

For non-majors and music majors. Introduction and study of traditional and contemporary band literature. This is the second year of a two-year course of study that includes performance, study of common styles and practices of historically and culturally significant composers/arrangers, and study of historical issues related to the development and performance of band literature. Provides a thorough groundwork in the fundamental ideas, techniques, and practices of band music and ensemble performance. No audition required. May be repeated for up to 6 credits.

**Required:** Completion of high school or high school performance level. Ability to read music and play a band instrument

**Prerequisites:** MUP-102 (6 credits)

OC LCT	<b>MUP-202-01</b>	<b>325211 TTH</b>			<b>3-4:50 PM</b>	
	L. CAMPBELL		\$246.00	\$26.00	\$0.00	\$272.00

**MUP-204 PEP BAND/COMBO-IMPROV, 1 CREDIT**

Instrumental performing group concentrating on rock, pop, and contemporary styles in the small to medium-sized group setting. No audition required. May be repeated for up to 8 credits.

**Prerequisites:** MUP-104 (3 credits)

**Recommended Prerequisites:** MUP-105 or MUP-125

OC LCT	<b>MUP-204-01</b>	<b>325212 M</b>			<b>2-2:50 PM</b>	
	C. DOGGETT		\$123.00	\$13.00	\$0.00	\$136.00
	Required: 1 hour a week TBA.					

**MUP-205 JAZZ ENSEMBLE, 2 CREDITS**

For non-majors and music majors. Introduction and study of common big-band and small-group jazz styles. This is the second year of a two-year course of study that includes performance, improvisation, musical arranging and writing, study of common styles and practices of historically and culturally significant jazz artists, and study of historical issues related to the development and performance of jazz music. May be repeated for up to 6 credits.

**Prerequisites:** MUP-105 (6 credits)

OC LCT	<b>MUP-205-01</b>	<b>325213 MW</b>			<b>3-4:50 PM</b>	
	L. CAMPBELL		\$246.00	\$26.00	\$0.00	\$272.00

**MUP-222 CHAMBER CHOIR, 2 CREDITS**

Advanced vocal ensemble which rehearses and performs choral music from the Renaissance to the 21st century. Provides preparation for entering professional fields of music and performance. Emphasis on a cappella singing applied to appropriate chamber music. Recommended for vocal music majors. Enrollment by audition. May be repeated for up to 6 credits.

**Prerequisites:** MUP-122 (6 credits)

OC LCT	<b>MUP-222-01</b>	<b>325214 TTH</b>			<b>3-4:50 PM</b>	
	K. HOLLINGSWORTH		\$246.00	\$26.00	\$52.00	\$324.00

**MUP-225 VOCAL JAZZ ENSEMBLE: MAINSTREAM, 2 CREDITS**

Advanced performing ensemble that cultivates musical, professional, and personal growth through rehearsal and performance with rhythm section of jazz, rock, pop, funk, and fusion. Includes study of jazz as it applies to vocal ensemble combined with rhythm section. Emphasis on style, improvisation, and techniques. Enrollment by audition. May be repeated for up to 6 credits.

**Prerequisites:** MUP-125 (6 credits)

OC LCT	<b>MUP-225-01</b>	<b>325215 MW</b>			<b>3-4:50 PM</b>	
	K. HOLLINGSWORTH		\$246.00	\$26.00	\$52.00	\$324.00

**MUP-241 COLLEGE ORCHESTRA, 1 CREDIT**

**Campus Locations:**

- HAR:** Harmony Community Campus
- OC:** Oregon City Campus
- WILS:** Wilsonville Training Center
- OFF:** Other Off-Campus Location

**Distance Education Notification:**

- ONL:** Online Only
- REM:** Remote (w/ scheduled meetings)
- HYB:** In-person plus online work

**Other Coding Translations:**

- TBA:** To be arranged: contact department first class
- VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español

**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

Performance and study of orchestral literature. College students may earn credit for playing in one of several approved orchestral groups. Minimum of one performance per term. May be repeated for up to 8 credits. Required: Student Petition.

OC LCT	<b>MUP-241-01</b>	<b>325216 TBA</b>				
	L. CAMPBELL		\$123.00	\$13.00	\$0.00	\$136.00
	Required: Student Petition.					

**MUP-258 CHAMBER ENSEMBLE, 1 CREDIT**

Rehearsal and performance of traditional vocal and instrumental chamber music (one musician per part). Includes concerts and coaching by area professionals. Highly recommended for music majors. May be repeated for up to 8 credits. Second of a two-part series.

**Prerequisites:** MUP-158 (6 credits)

OC LCT	<b>MUP-258-01</b>	<b>325217 TH</b>			<b>1-2:50 PM</b>	
	D. TUTMARK		\$123.00	\$13.00	\$85.00	\$221.00
	Guitar Ensemble.					

**MUS-101 MUSIC FUNDAMENTALS, 3 CREDITS**

Introduction to fundamentals of reading and writing music. Designed for non-majors or majors needing substantial preparation for Music Theory I.

OC LCT	<b>MUS-101-01</b>	<b>325269 TTH</b>			<b>10-11:20 AM</b>	
	K. HOLLINGSWORTH		\$369.00	\$39.00	\$10.00	\$418.00
ONL	<b>MUS-101-02</b>	<b>325272</b>				
	J. HEDBERG		\$369.00	\$39.00	\$10.00	\$418.00

**MUS-105 MUSIC APPRECIATION, 3 CREDITS**

For non-majors and music majors. Emphasis on engaging in the study of instrumental and vocal musical genres from the ancient period through the contemporary music of our time. Includes critical analysis, study of elements, forms, styles, composers, performers, cultural, and historical issues and events.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

ONL	<b>MUS-105-01</b>	<b>325274</b>				
	J. HEDBERG		\$369.00	\$39.00	\$0.00	\$408.00

**MUS-106 AUDIO RECORDING AT HOME, 1 CREDIT**

An overview of the basic tools and techniques used in audio recording at home. Depending on participant needs, topics may include signal path, microphone applications, software, hardware, outboard gear, soldering techniques, tracking, mixing, and editing.

OC LCT	<b>MUS-106-01</b>	<b>325276 F</b>			<b>6:30 -8:50 PM</b>	
		<b>S</b>			<b>9-5:50 PM</b>	
	B. ROSE		\$123.00	\$13.00	\$99.00	\$235.00
	Meets: 10/27 & 10/28.					

**MUS-107 INTRODUCTION TO AUDIO RECORDING I, 3 CREDITS**

Introduction to the basic techniques and tools used in audio recording. Areas of study include signal path, microphone applications, software, hardware, outboard gear, tracking, mixing, and editing.

OC	<b>MUS-107-01</b>	<b>325278 M</b>			<b>6:30 -9:20 PM</b>	
	D. BADSTUBNER		\$369.00	\$39.00	\$99.00	\$507.00
OC	<b>MUS-107-02</b>	<b>325280 M</b>			<b>9-11:50 AM</b>	
	TBA		\$369.00	\$39.00	\$99.00	\$507.00

**MUS-108 INTRODUCTION TO AUDIO RECORDING II, 3 CREDITS**

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

Exploration of techniques and tools used in audio recording. Analog, digital, and hard drive recording will be explored. Areas of study include multi-tracking, signal path, microphone applications, software, hardware, outboard gear, soldering techniques, tracking, mixing, and editing. Software/hardware includes ProTools, ADAT, Mackie, etc.

**Prerequisites:** MUS-107

oc	<b>MUS-108-01</b>	<b>325282 T</b>			<b>6:30 -9:20 PM</b>	
	D. BADSTUBNER	\$369.00	\$39.00	\$99.00		\$507.00
oc	<b>MUS-108-02</b>	<b>325285 M</b>			<b>1-3:50 PM</b>	
	TBA	\$369.00	\$39.00	\$99.00		\$507.00

**MUS-109 INTRODUCTION TO AUDIO RECORDING III, 3 CREDITS**

Exploration of digital recording/editing software and production of CD project. Advanced exploration of techniques and tools used in audio recording. Areas of study include signal path, microphone applications, software, hardware, outboard gear, tracking, mixing, and editing. Analog, digital, and hard drive recording will be explored. Software/hardware includes ProTools, ADAT, Mackie, etc.

**Prerequisites:** MUS-108

oc	<b>MUS-109-01</b>	<b>325286 T</b>			<b>6:30 -9:20 PM</b>	
	D. BADSTUBNER	\$369.00	\$39.00	\$99.00		\$507.00
oc	<b>MUS-109-02</b>	<b>325287 M</b>			<b>1-3:50 PM</b>	
	TBA	\$369.00	\$39.00	\$99.00		\$507.00

**MUS-111 MUSIC THEORY I, 3 CREDITS**

For non-majors and music majors. Presents an introduction to the diatonic and chromatic structure of tonal music from the common practice period through written exercises, listening, and analysis. This is the first term of a three-term sequence, which includes concepts of pitch and rhythm, intervals, keys, scales, triads, dominant seventh chord, and standard cadences. Provides a thorough groundwork in the melodic, harmonic, and rhythmic elements of music.

**Corequisites:** First year music majors must take MUS-111 concurrently with MUS-111L, MUS-114, and MUS-127. This requirement does not affect non-music majors

**Recommended Prerequisites:** MTH-095 or placement in MTH-111Z; WRD-098 or placement in WR-121Z

oc	<b>MUS-111-01</b>	<b>325289 TTH</b>			<b>10-11:20 AM</b>	
	R. OLASON	\$369.00	\$39.00	\$84.38		\$492.38
	Online textbook included in section fees.					

**MUS-111L MUSIC NOTATION SOFTWARE I, 1 CREDIT**

Introduces students to Finale (music notation software) on Macintosh computers.

**Required:** Required for first-year music majors

oc	<b>MUS-111L-01</b>	<b>325290 W</b>			<b>10-11:50 AM</b>	
	D. FLESCHNER	\$123.00	\$13.00	\$44.00		\$180.00

**MUS-114 AURAL SKILLS I, 2 CREDITS**

First course in a year-long sequence. Diatonic sight singing in major keys using solfège syllables and moveable 'do'. Melodic dictation and aural recognition of intervals and triads.

**Corequisites:** MUS-111

**Required:** Required for first-year music majors

oc	<b>MUS-114-01</b>	<b>325292 TTH</b>			<b>1-1:50 PM</b>	
	R. OLASON	\$246.00	\$26.00	\$0.00		\$272.00

**MUS-127 KEYBOARD SKILLS I, 2 CREDITS**

Develops basic keyboard skills required for study of tonal harmony and various musical activities such as vocal and instrumental rehearsals, music education and composition.

**Campus Locations:**

**HAR:** Harmony Community Campus  
**OC:** Oregon City Campus  
**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

**Distance Education Notification:**

**ONL:** Online Only  
**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

**Corequisites:** MUS-111, MUS-111L, MUS-114

**Required:** Required for music majors

**Recommended:** Some experience in reading treble and bass clef, or MUS-131, MUS-132, or MUS-133 with a C or better

oc	<b>MUS-127-01</b>	<b>325293 TTH</b>			<b>2-2:50 PM</b>	
	R. OLASON	\$246.00	\$26.00	\$10.00		\$282.00

**MUS-131 GROUP PIANO: PIANO FOR PLEASURE, 1 CREDIT**

First of three courses in a year-long sequence. Beginning classroom piano instruction for non-music majors. Includes reading, theory, technical exercises, and the opportunity to share your music with others. Beginning to intermediate level.

oc	<b>MUS-131-01</b>	<b>325295 TTH</b>			<b>9-9:50 AM</b>	
	C. GIBERSON	\$123.00	\$13.00	\$85.00		\$221.00

**MUS-137 GROUP GUITAR I, 1 CREDIT**

For beginning to intermediate players. Covers finger picking, lead guitar, rock and popular styles, music reading, and music theory. Students provide own instrument.

oc LCT	<b>MUS-137-01</b>	<b>325298 TTH</b>			<b>11-11:50 AM</b>	
	D. TUTMARK	\$123.00	\$13.00	\$85.00		\$221.00

**MUS-141 INTRODUCTION TO THE MUSIC BUSINESS, 3 CREDITS**

Explores business basics, songwriting, demos, agents, managers, copyrights, gig and concert promotion, publishing, licensing, and music business structures.

ONL LCT	<b>MUS-141-01</b>	<b>325301</b>				
	D. FLESCHNER	\$369.00	\$39.00	\$0.00		\$408.00

**MUS-142 INTRODUCTION TO ELECTRONIC MUSIC I: MIDI, 3 CREDITS**

Introduction to synthesis, MIDI sequencing, basic musical elements, and the basics of production. Learn how to make beats, songs, etc. Uses common production software/hardware.

oc	<b>MUS-142-01</b>	<b>325303 T</b>			<b>1-3:50 PM</b>	
	C. GIBERSON	\$369.00	\$39.00	\$99.00		\$507.00

**MUS-143 INTRODUCTION TO ELECTRONIC MUSIC II: SEQUENCING, AUDIO LOOPING, SOUND EFX, 3 CREDITS**

An introduction to digital audio in the MIDI environment. This course continues MIDI sequencing, and integrates audio into the MIDI environment with audio looping, and spotting sound effects. Uses common production software/hardware.

**Prerequisites:** MUS-142

oc LCT	<b>MUS-143-01</b>	<b>325307 TH</b>			<b>1-3:50 PM</b>	
	C. GIBERSON	\$369.00	\$39.00	\$99.00		\$507.00

**MUS-144 INTRODUCTION TO ELECTRONIC MUSIC III: DIGITAL AUDIO, 3 CREDITS**

Exploration of digital music recording and editing, synthesis, sampling, and sequencing. Presents CD/audio file production techniques integrating digital audio with the MIDI sequence. Uses Pro Tools, and other common production software/hardware.

**Prerequisites:** MUS-143

oc	<b>MUS-144-01</b>	<b>325309 TH</b>			<b>1-3:50 PM</b>	
	C. GIBERSON	\$369.00	\$39.00	\$99.00		\$507.00

**MUS-147 MUSIC, SOUND & MOVIE MAKING, 1 CREDIT**

**Other Coding Translations:**

**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español

**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor			Tuition	Fee	Crs. Fee

Presents the basic components of designing, shooting, recording audio, and post production of movies as well as the history and theory that has led to contemporary film production.

OC LCT	<b>MUS-147-01</b>	<b>325105 F</b>		<b>6:30 -8:50 PM</b>		
		<b>S</b>		<b>9-5:50 PM</b>		
	B. ROSE	\$123.00	\$13.00	\$99.00	\$235.00	
	Meets: 10/20 & 10/21.					

**MUS-148 LIVE SOUND ENGINEERING, 3 CREDITS**

Introduction to the basic techniques and tools used in live sound engineering and mixing. Areas of study include set up, signal path, microphone applications, hardware, and outboard gear.

OC LCT	<b>MUS-148-01</b>	<b>325314 W</b>		<b>6:30 -9:20 PM</b>		
	R. SOMMERS	\$369.00	\$39.00	\$99.00	\$507.00	

**MUS-189 PERFORMANCE & REPERTOIRE, 1 CREDIT**

A performance forum required for all students studying a classical instrument or voice at the MUP 171-191 and MUP 271-291 levels. Through weekly performance and critique, each student will develop proper stage manners and prepare for the end of term performance jury, and will also study the work to be performed through academic research. Students will have an opportunity to work with a professional accompanist. May be repeated for up to 6 credits.

OC LCT	<b>MUS-189-01</b>	<b>325317 W</b>		<b>9-9:50 AM</b>		
	J. ISRAELS	\$123.00	\$13.00	\$0.00	\$136.00	
	B. MICHAEL					

**MUS-205 MUSIC LITERATURE: HISTORY OF JAZZ, 4 CREDITS**

For non-majors and music majors. Emphasis on engaging in the study of Jazz music and surrounding cultural/historical issues. Includes critical analysis, study of elements, forms, styles, composers, performers, cultural, and historical issues and events.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

ONL	<b>MUS-205-01</b>	<b>325321</b>				
	R. INOUE	\$492.00	\$52.00	\$0.00	\$544.00	

**MUS-206 MUSIC LITERATURE: HISTORY OF ROCK, 4 CREDITS**

For non-majors and music majors. Emphasis on engaging in the study of Rock music and surrounding cultural/historical issues. Includes critical analysis, study of elements, forms, styles, composers, performers, cultural, and historical issues and events. An examination of Rock music as a contemporary social medium.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

OC LCT	<b>MUS-206-01</b>	<b>325322 MW</b>		<b>10-11:50 AM</b>		
	K. DEITZ	\$492.00	\$52.00	\$0.00	\$544.00	
	Required: Attendance at three concert field trips TBA.					
ONL	<b>MUS-206-02</b>	<b>325327</b>				
	J. HEDBERG	\$492.00	\$52.00	\$0.00	\$544.00	

**MUS-211 MUSIC THEORY II, 3 CREDITS**

For non-majors and music majors. Continuation of the study of functional harmony through written exercises, compositions, listening, and analysis and introduction to polyphony. This is the first term of a three-term sequence, which includes late Renaissance polyphony, baroque counterpoint, and chromatic harmony.

**Prerequisites:** MUS-113

**Corequisites:** MUS-214 and MUS-224

oc	<b>MUS-211-01</b>	<b>325328 MW</b>		<b>10-11:20 AM</b>		
	R. OLASON	\$369.00	\$39.00	\$269.00	\$677.00	

**Campus Locations:**  
**HAR:** Harmony Community Campus  
**OC:** Oregon City Campus  
**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

**Distance Education Notification:**  
**ONL:** Online Only  
**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

**Other Coding Translations:**  
**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor			Tuition	Fee	Crs. Fee

**MUS-214 KEYBOARD SKILLS II, 2 CREDITS**  
 Advanced keyboard applications of the materials of diatonic and chromatic music.

**Prerequisites:** MUS-129

**Corequisites:** MUS-211

**Required:** Required for second-year music majors

oc	<b>MUS-214-01</b>	<b>325330 MW</b>		<b>2-2:50 PM</b>		
	R. OLASON	\$246.00	\$26.00	\$85.00	\$357.00	

**MUS-218 MPT SEMINAR I, 1 CREDIT**

First of a three-part series. For second year MPT students only. Seminar will cover writing, arranging, production, performance and music theory through experiential learning. Students will produce, write and arrange for each CWE/Songwriters concert and will produce the Annual MPT festival each spring.

**Prerequisites:** MUS-103, MUS-109, MUS-113L, and MUP-150

**Required:** Must be a 2nd year MPT student in good standing

oc	<b>MUS-218-01</b>	<b>325332 M</b>		<b>12-12:50 PM</b>		
	K. HOLLINGSWORTH	\$123.00	\$13.00	\$0.00	\$136.00	

**MUS-224 AURAL SKILLS II, 2 CREDITS**

First of three courses in a year-long sequence. Diatonic and chromatic sight singing with solfège syllables and moveable 'do'. Four-part dictation including all chromatic devices studied in Theory II.

**Prerequisites:** MUS-116

**Corequisites:** MUS-211

**Required:** Required for second-year music majors

oc	<b>MUS-224-01</b>	<b>325334 MW</b>		<b>1-1:50 PM</b>		
	R. OLASON	\$246.00	\$26.00	\$85.00	\$357.00	

**MUS-247 SOUND FOR MEDIA, 3 CREDITS**

Introduction to sound as related to film making, animation, and video games. Students will have the opportunity to create and assemble sound for media into a finished product. Explores the basic components of commercial film/video, animation, and game production as they relate to sound.

**Recommended:** Experience using a DAW (Digital Audio Workstation) or video editing software

OC LCT	<b>MUS-247-01</b>	<b>325106 W</b>		<b>3-5:50 PM</b>		
	B. ROSE	\$369.00	\$39.00	\$99.00	\$507.00	

**MUS-280 MUSIC/CWE, 2-6 CREDITS**

Cooperative work experience. Provides students with on-the-job work experience in the field of music. Variable Credit: 2-6 credits. Required: Student Petition.

**Corequisites:** CWE-281

**Prerequisites:** MUS-107, MUS-140, and MUS-142

ONL	<b>MUS-280-01</b>	<b>325337</b>				
	C. DOGGETT	\$738.00	\$78.00	\$144.00	\$960.00V	
	Required: Student Petition. Corequisite: Take 1 of the following CWE-281-06.					

ONL	<b>MUS-280-02</b>	<b>325341</b>				
	G. HARRIS	\$738.00	\$78.00	\$144.00	\$960.00V	
	Required: Student Petition. Corequisite: Take 1 of the following CWE-281-06.					

**XMUP-0001 UNISTUS CHOIR, 0 CREDIT**



Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	
oc	<b>XMUP-0001-01</b> L. CLINE	<b>325368 M</b>			<b>6:30 -9:20 PM</b>	
			\$0.00	\$0.00	\$0.00	\$0.00

**Music: Individual Lessons - Non-Music Majors**

**MUP-100 INDIVIDUAL LESSONS: NON-MUSIC MAJORS, 1 CREDIT**

Private lessons for beginners, non-music majors, and students who receive a low rating in MUP-171-191 auditions. Brass, woodwind, percussion, string and keyboard instruments, and voice. May be repeated for up to 6 credits. Required: Student Petition.

OC LCT	<b>MUP-100-01</b> C. GIBERSON	<b>325149 TBA</b>	\$123.00	\$13.00	\$299.00	\$435.00
	Required: Student Petition. Jazz Piano Lessons.					
OC LCT	<b>MUP-100-02</b> Y. MIYAMA	<b>325150 TBA</b>	\$123.00	\$13.00	\$299.00	\$435.00
	Required: Student Petition. Piano Lessons.					
OC LCT	<b>MUP-100-03</b> D. FLESCHNER	<b>325151 TBA</b>	\$123.00	\$13.00	\$299.00	\$435.00
	Required: Student Petition. Rock, Blues, and Pop Piano Lessons.					
OC LCT	<b>MUP-100-04</b> J. ISRAELS	<b>325152 TBA</b>	\$123.00	\$13.00	\$299.00	\$435.00
	Required: Student Petition. Voice Lessons.					
OC LCT	<b>MUP-100-05</b> B. MICHAEL	<b>325153 TBA</b>	\$123.00	\$13.00	\$299.00	\$435.00
	Required: Student Petition. Voice Lessons.					
OC LCT	<b>MUP-100-06</b> C. AVERILL	<b>325154 TBA</b>	\$123.00	\$13.00	\$299.00	\$435.00
	Required: Student Petition. Cello Lessons.					
OC LCT	<b>MUP-100-07</b> K. DEITZ	<b>325155 TBA</b>	\$123.00	\$13.00	\$299.00	\$435.00
	Required: Student Petition. Bass Lessons.					
OC LCT	<b>MUP-100-08</b> D. TUTMARK	<b>325156 TBA</b>	\$123.00	\$13.00	\$299.00	\$435.00
	Required: Student Petition. Guitar Lessons.					
OC LCT	<b>MUP-100-09</b> C. WOITACH	<b>325157 TBA</b>	\$123.00	\$13.00	\$299.00	\$435.00
	Required: Student Petition. Jazz Guitar Lessons.					
OC LCT	<b>MUP-100-10</b> G. HARRIS	<b>325158 TBA</b>	\$123.00	\$13.00	\$299.00	\$435.00
	Required: Student Petition. Saxophone Lessons.					
OC LCT	<b>MUP-100-11</b> J. KLAUSE	<b>325159 TBA</b>	\$123.00	\$13.00	\$299.00	\$435.00
	Required: Student Petition. Trumpet Lessons.					
OC LCT	<b>MUP-100-12</b> C. DOGGETT	<b>325160 TBA</b>	\$123.00	\$13.00	\$299.00	\$435.00
	Required: Student Petition. Percussion & Drum Set Lessons.					

**Music: Individual Lessons - Year 1**

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

*College-level private lessons required for music majors and available to qualified non-majors. End-of-term juried performance mandatory. May be repeated for up to 10 credits. Required: Student Petition.*

*Students will pay a \$299 private instruction fee at the time of registration when noted in the course fee column which is nonrefundable. Students must contact their private teacher upon registration to schedule a lesson time.*

**MUP-171 INDIVIDUAL LESSONS: PIANO, 2 CREDITS**

Required: College-level performance ability

Corequisites: MUS-189

OC LCT	<b>MUP-171-01</b> Y. MIYAMA	<b>325170 TBA</b>	\$246.00	\$26.00	\$299.00	\$571.00
	Required: Student Petition.					

**MUP-171J INDIVIDUAL LESSONS: JAZZ PIANO, 2 CREDITS**

Required: College-level performance ability

OC LCT	<b>MUP-171J-01</b> C. GIBERSON	<b>325171 TBA</b>	\$246.00	\$26.00	\$299.00	\$571.00
	Required: Student Petition.					

**MUP-171R INDIVIDUAL LESSONS: ROCK, BLUES, POP PIANO, 2 CREDITS**

Required: College-level performance ability

OC LCT	<b>MUP-171R-01</b> D. FLESCHNER	<b>325172 TBA</b>	\$246.00	\$26.00	\$299.00	\$571.00
	Required: Student Petition.					
OC LCT	<b>MUP-171R-02</b> C. GIBERSON	<b>325173 TBA</b>	\$246.00	\$26.00	\$299.00	\$571.00
	Required: Student Petition.					

**MUP-172 INDIVIDUAL LESSONS: ORGAN, 2 CREDITS**

Required: College-level performance ability

Corequisites: MUS-189

OC LCT	<b>MUP-172-01</b> J. HOLLAND	<b>325174 TBA</b>	\$246.00	\$26.00	\$299.00	\$571.00
	Required: Student Petition.					

**MUP-174 INDIVIDUAL LESSONS: VOICE, 2 CREDITS**

Required: College-level performance ability

Corequisites: MUS-189

OC LCT	<b>MUP-174-01</b> J. ISRAELS	<b>325175 TBA</b>	\$246.00	\$26.00	\$299.00	\$571.00
	Required: Student Petition.					
OC LCT	<b>MUP-174-02</b> B. MICHAEL	<b>325176 TBA</b>	\$246.00	\$26.00	\$299.00	\$571.00
	Required: Student Petition.					

**MUP-174J INDIVIDUAL LESSONS: JAZZ VOICE, 2 CREDITS**

Required: College-level performance ability

Corequisites: MUS-189

OC LCT	<b>MUP-174J-01</b> J. ISRAELS	<b>325178 TBA</b>	\$246.00	\$26.00	\$299.00	\$571.00
	Required: Student Petition.					

**Campus Locations:**

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**OC:** Oregon City Campus  
**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

**Distance Education Notification:**

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**HYB:** In-person plus online work

**Other Coding Translations:**

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**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español

**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Tuition	Fee	Time	Total	Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Tuition	Fee	Time	Total	
	Instructor						Crs. Fee			Instructor						Crs. Fee		
OC LCT	<b>MUP-174J-02 325179 TBA</b> B. MICHAEL Required: Student Petition.				\$246.00	\$26.00	\$299.00	\$571.00	<b>MUP-180R INDIVIDUAL LESSONS: ROCK, BLUES, POP GUITAR, 2 CREDITS</b> Required: College-level performance ability	OC LCT	<b>MUP-180R-01 325189 TBA</b> A. CSIKOS Required: Student Petition.				\$246.00	\$26.00	\$299.00	\$571.00
<b>MUP-175 INDIVIDUAL LESSONS: VIOLIN, 2 CREDITS</b> Required: College-level performance ability Corequisites: MUS-189	OC LCT	<b>MUP-175-01 325180 TBA</b> TBA Required: Student Petition.			\$246.00	\$26.00	\$299.00	\$571.00	<b>MUP-181 INDIVIDUAL LESSONS: FLUTE, 2 CREDITS</b> Required: College-level performance ability Corequisites: MUS-189	OC LCT	<b>MUP-181-01 325191 TBA</b> K. GIFFORD Required: Student Petition.				\$246.00	\$26.00	\$299.00	\$571.00
<b>MUP-176 INDIVIDUAL LESSONS: VIOLA, 2 CREDITS</b> Required: College-level performance ability Corequisites: MUS-189	OC LCT	<b>MUP-176-01 325181 TBA</b> H. OSEAS Required: Student Petition.			\$246.00	\$26.00	\$299.00	\$571.00	<b>MUP-181J INDIVIDUAL LESSONS: JAZZ FLUTE, 2 CREDITS</b> Required: College-level performance ability	OC LCT	<b>MUP-181J-01 325192 TBA</b> G. HARRIS Required: Student Petition.				\$246.00	\$26.00	\$299.00	\$571.00
<b>MUP-177 INDIVIDUAL LESSONS: CELLO, 2 CREDITS</b> Required: College-level performance ability Corequisites: MUS-189	OC LCT	<b>MUP-177-01 325182 TBA</b> C. AVERILL Required: Student Petition.			\$246.00	\$26.00	\$299.00	\$571.00	<b>MUP-182 INDIVIDUAL LESSONS: OBOE, 2 CREDITS</b> Required: College-level performance ability Corequisites: MUS-189	OC LCT	<b>MUP-182-01 325193 TBA</b> K. GRONLI Required: Student Petition.				\$246.00	\$26.00	\$299.00	\$571.00
<b>MUP-178 INDIVIDUAL LESSONS: BASS, 2 CREDITS</b> Required: College-level performance ability Corequisites: MUS-189	OC LCT	<b>MUP-178-01 325183 TBA</b> K. DEITZ Required: Student Petition.			\$246.00	\$26.00	\$299.00	\$571.00	<b>MUP-183 INDIVIDUAL LESSONS: CLARINET, 2 CREDITS</b> Required: College-level performance ability Corequisites: MUS-189	OC LCT	<b>MUP-183-01 325194 TBA</b> L. DE MARTINO Required: Student Petition.				\$246.00	\$26.00	\$299.00	\$571.00
<b>MUP-178J INDIVIDUAL LESSONS: JAZZ BASS, 2 CREDITS</b> Required: College-level performance ability	OC LCT	<b>MUP-178J-01 325184 TBA</b> K. DEITZ Required: Student Petition.			\$246.00	\$26.00	\$299.00	\$571.00	<b>MUP-183J INDIVIDUAL LESSONS: JAZZ CLARINET, 2 CREDITS</b> Required: College-level performance ability	OC LCT	<b>MUP-183J-01 325195 TBA</b> TBA Required: Student Petition.				\$246.00	\$26.00	\$299.00	\$571.00
<b>MUP-178J-02 325185 TBA</b> T. WAKELING Required: Student Petition.	OC LCT	<b>MUP-178J-02 325185 TBA</b> T. WAKELING Required: Student Petition.			\$246.00	\$26.00	\$299.00	\$571.00	<b>MUP-184 INDIVIDUAL LESSONS: SAXOPHONE, 2 CREDITS</b> Required: College-level performance ability Corequisites: MUS-189	OC LCT	<b>MUP-184-01 325196 TBA</b> G. HARRIS Required: Student Petition.				\$246.00	\$26.00	\$299.00	\$571.00
<b>MUP-179 INDIVIDUAL LESSONS: HARP, 2 CREDITS</b> Required: College-level performance ability Corequisites: MUS-189	OC LCT	<b>MUP-179-01 325186 TBA</b> TBA Required: Student Petition.			\$246.00	\$26.00	\$299.00	\$571.00	<b>MUP-184J INDIVIDUAL LESSONS: JAZZ SAXOPHONE, 2 CREDITS</b> Required: College-level performance ability	OC LCT	<b>MUP-184J-01 325198 TBA</b> G. HARRIS Required: Student Petition.				\$246.00	\$26.00	\$299.00	\$571.00
<b>MUP-180 INDIVIDUAL LESSONS: GUITAR, 2 CREDITS</b> Required: College-level performance ability Corequisites: MUS-189	OC LCT	<b>MUP-180-01 325187 TBA</b> D. TUTMARK Required: Student Petition.			\$246.00	\$26.00	\$299.00	\$571.00	<b>MUP-185 INDIVIDUAL LESSONS: BASSOON, 2 CREDITS</b> Required: College-level performance ability Corequisites: MUS-189	OC LCT	<b>MUP-185-01 325199 TBA</b> N. BUETTI Required: Student Petition.				\$246.00	\$26.00	\$299.00	\$571.00
<b>MUP-180J INDIVIDUAL LESSONS: JAZZ GUITAR, 2 CREDITS</b> Required: College-level performance ability	OC LCT	<b>MUP-180J-01 325188 TBA</b> C. WOITACH Required: Student Petition.			\$246.00	\$26.00	\$299.00	\$571.00										

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Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	
<b>MUP-186</b>	<b>INDIVIDUAL LESSONS: TRUMPET, 2 CREDITS</b>					
<b>Required:</b> College-level performance ability						
<b>Corequisites:</b> MUS-189						
OC LCT	<b>MUP-186-01 325200 TBA</b>					
	J. KLAUSE	\$246.00	\$26.00	\$299.00	\$571.00	
Required: Student Petition.						
<b>MUP-186J</b>	<b>INDIVIDUAL LESSONS: JAZZ TRUMPET, 2 CREDITS</b>					
<b>Required:</b> College-level performance ability						
OC LCT	<b>MUP-186J-01 325201 TBA</b>					
	P. MAZZIO	\$246.00	\$26.00	\$299.00	\$571.00	
Required: Student Petition.						
<b>MUP-187</b>	<b>INDIVIDUAL LESSONS: FRENCH HORN, 2 CREDITS</b>					
<b>Required:</b> College-level performance ability						
<b>Corequisites:</b> MUS-189						
OC LCT	<b>MUP-187-01 325202 TBA</b>					
	R. OLASON	\$246.00	\$26.00	\$299.00	\$571.00	
Required: Student Petition.						
<b>MUP-188</b>	<b>INDIVIDUAL LESSONS: TROMBONE, 2 CREDITS</b>					
<b>Required:</b> College-level performance ability						
<b>Corequisites:</b> MUS-189						
OC LCT	<b>MUP-188-01 325203 TBA</b>					
	L. CAMPBELL	\$246.00	\$26.00	\$299.00	\$571.00	
Required: Student Petition.						
OC LCT	<b>MUP-188-02 325204 TBA</b>					
	G. MIDDLETON	\$246.00	\$26.00	\$299.00	\$571.00	
Required: Student Petition.						
<b>MUP-188J</b>	<b>INDIVIDUAL LESSONS: JAZZ TROMBONE, 2 CREDITS</b>					
<b>Required:</b> College-level performance ability						
OC LCT	<b>MUP-188J-01 325205 TBA</b>					
	L. CAMPBELL	\$246.00	\$26.00	\$299.00	\$571.00	
Required: Student Petition.						
<b>MUP-189</b>	<b>INDIVIDUAL LESSONS: EUPONIUM, 2 CREDITS</b>					
<b>Required:</b> College-level performance ability						
<b>Corequisites:</b> MUS-189						
OC LCT	<b>MUP-189-01 325206 TBA</b>					
	G. MIDDLETON	\$246.00	\$26.00	\$299.00	\$571.00	
Required: Student Petition.						
<b>MUP-190</b>	<b>INDIVIDUAL LESSONS: TUBA, 2 CREDITS</b>					
<b>Required:</b> College-level performance ability						
<b>Corequisites:</b> MUS-189						
OC LCT	<b>MUP-190-01 325208 TBA</b>					
	TBA	\$246.00	\$26.00	\$299.00	\$571.00	
Required: Student Petition.						
<b>MUP-191</b>	<b>INDIVIDUAL LESSONS: PERCUSSION, 2 CREDITS</b>					
<b>Required:</b> College-level performance ability						
<b>Corequisites:</b> MUS-189						
OC LCT	<b>MUP-191-01 325209 TBA</b>					
	TBA	\$246.00	\$26.00	\$299.00	\$571.00	
Required: Student Petition.						
<b>MUP-191J</b>	<b>INDIVIDUAL LESSONS: JAZZ PERCUSSION, 2 CREDITS</b>					
<b>Required:</b> College-level performance ability						

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	
OC LCT	<b>MUP-191J-01 325210 TBA</b>					
	C. DOGGETT	\$246.00	\$26.00	\$299.00	\$571.00	
Required: Student Petition.						

**Music: Individual Lessons - Year 2**

*Second-year private lessons required for music majors and available to qualified non-majors. End-of-term juried performance mandatory. May be repeated for up to 10 credits.*

*Students will pay a \$299 private instruction fee at the time of registration when noted in the course fee column which is nonrefundable. Students must contact their private teacher upon registration to schedule a lesson time.*

**MUP-271 INDIVIDUAL LESSONS: PIANO, 2 CREDITS**

**Prerequisites:** MUP-171 (6 credits)

**Corequisites:** MUS-189

**Required:** Sophomore-level performance ability

OC LCT	<b>MUP-271-01 325218 TBA</b>					
	Y. MIYAMA	\$246.00	\$26.00	\$299.00	\$571.00	

**MUP-271J INDIVIDUAL LESSONS: JAZZ PIANO, 2 CREDITS**

**Prerequisites:** MUP-171J (6 credits)

**Required:** Sophomore-level performance ability

OC LCT	<b>MUP-271J-01 325219 TBA</b>					
	C. GIBERSON	\$246.00	\$26.00	\$299.00	\$571.00	

**MUP-271R INDIVIDUAL LESSONS: ROCK, BLUES, POP PIANO, 2 CREDITS**

**Prerequisites:** MUP-171R (6 credits)

**Required:** Sophomore-level performance ability

OC LCT	<b>MUP-271R-01 325220 TBA</b>					
	D. FLESCHNER	\$246.00	\$26.00	\$299.00	\$571.00	

**MUP-272 INDIVIDUAL LESSONS: ORGAN, 2 CREDITS**

**Prerequisites:** MUP-172 (6 credits)

**Corequisites:** MUS-189

**Required:** Sophomore-level performance ability

OC LCT	<b>MUP-272-01 325221 TBA</b>					
	J. HOLLAND	\$246.00	\$26.00	\$299.00	\$571.00	

**MUP-274 INDIVIDUAL LESSONS: VOICE, 2 CREDITS**

**Prerequisites:** MUP-174 (6 credits)

**Corequisites:** MUS-189

**Required:** Sophomore-level performance ability

OC LCT	<b>MUP-274-01 325222 TBA</b>					
	J. ISRAELS	\$246.00	\$26.00	\$299.00	\$571.00	
OC LCT	<b>MUP-274-02 325223 TBA</b>					
	B. MICHAEL	\$246.00	\$26.00	\$299.00	\$571.00	

**MUP-274J INDIVIDUAL LESSONS: JAZZ VOICE, 2 CREDITS**

**Prerequisites:** MUP-174J (6 credits)

**Corequisites:** MUS-189

**Required:** Sophomore-level performance ability

OC LCT	<b>MUP-274J-01 325225 TBA</b>					
	J. ISRAELS	\$246.00	\$26.00	\$299.00	\$571.00	
OC LCT	<b>MUP-274J-02 325226 TBA</b>					
	B. MICHAEL	\$246.00	\$26.00	\$299.00	\$571.00	

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<b>MUP-275</b>	<b>INDIVIDUAL LESSONS: VIOLIN, 2 CREDITS</b>										<b>OC LCT</b>	<b>MUP-280R-01 325237 TBA</b>	<b>A. CSIKOS</b>				\$246.00	\$26.00	\$299.00	\$571.00		
	<b>Prerequisites:</b> MUP-175 (6 credits)																					
	<b>Corequisites:</b> MUS-189																					
	<b>Required:</b> Sophomore-level performance ability																					
<b>MUP-276</b>	<b>INDIVIDUAL LESSONS: VIOLA, 2 CREDITS</b>										<b>OC LCT</b>	<b>MUP-281-01 325239 TBA</b>	<b>K. GIFFORD</b>				\$246.00	\$26.00	\$299.00	\$571.00		
	<b>Prerequisites:</b> MUP-176 (6 credits)																					
	<b>Corequisites:</b> MUS-189																					
	<b>Required:</b> Sophomore-level performance ability																					
<b>MUP-277</b>	<b>INDIVIDUAL LESSONS: CELLO, 2 CREDITS</b>										<b>OC LCT</b>	<b>MUP-281J-01 325240 TBA</b>	<b>G. HARRIS</b>				\$246.00	\$26.00	\$299.00	\$571.00		
	<b>Prerequisites:</b> MUP-177 (6 credits)																					
	<b>Corequisites:</b> MUS-189																					
	<b>Required:</b> Sophomore-level performance ability																					
<b>MUP-278</b>	<b>INDIVIDUAL LESSONS: BASS, 2 CREDITS</b>										<b>OC LCT</b>	<b>MUP-282-01 325242 TBA</b>	<b>K. GRONLI</b>				\$246.00	\$26.00	\$299.00	\$571.00		
	<b>Prerequisites:</b> MUP-178 (6 credits)																					
	<b>Corequisites:</b> MUS-189																					
	<b>Required:</b> Sophomore-level performance ability																					
<b>MUP-278J</b>	<b>INDIVIDUAL LESSONS: JAZZ BASS, 2 CREDITS</b>										<b>OC LCT</b>	<b>MUP-282-01 325242 TBA</b>	<b>K. DEITZ</b>				\$246.00	\$26.00	\$299.00	\$571.00		
	<b>Prerequisites:</b> MUP-178J (6 credits)																					
	<b>Required:</b> Sophomore-level performance ability																					
<b>MUP-278J-01</b>	<b>325231 TBA</b>										<b>OC LCT</b>	<b>MUP-278J-01 325231 TBA</b>	<b>K. DEITZ</b>				\$246.00	\$26.00	\$299.00	\$571.00		
<b>MUP-278J-02</b>	<b>325233 TBA</b>										<b>OC LCT</b>	<b>MUP-278J-02 325233 TBA</b>	<b>T. WAKELING</b>				\$246.00	\$26.00	\$299.00	\$571.00		
<b>MUP-279</b>	<b>INDIVIDUAL LESSONS: HARP, 2 CREDITS</b>										<b>OC LCT</b>	<b>MUP-279-01 325234 TBA</b>	<b>TBA</b>				\$246.00	\$26.00	\$299.00	\$571.00		
	<b>Prerequisites:</b> MUP-179 (6 credits)																					
	<b>Corequisites:</b> MUS-189																					
	<b>Required:</b> Sophomore-level performance ability																					
<b>MUP-280</b>	<b>INDIVIDUAL LESSONS: GUITAR, 2 CREDITS</b>										<b>OC LCT</b>	<b>MUP-280-01 325235 TBA</b>	<b>D. TUTMARK</b>				\$246.00	\$26.00	\$299.00	\$571.00		
	<b>Prerequisites:</b> MUP-180 (6 credits)																					
	<b>Corequisites:</b> MUS-189																					
	<b>Required:</b> Sophomore-level performance ability																					
<b>MUP-280J</b>	<b>INDIVIDUAL LESSONS: JAZZ GUITAR, 2 CREDITS</b>										<b>OC LCT</b>	<b>MUP-280J-01 325236 TBA</b>	<b>C. WOITACH</b>				\$246.00	\$26.00	\$299.00	\$571.00		
	<b>Prerequisites:</b> MUP-180J (6 credits)																					
	<b>Required:</b> Sophomore-level performance ability																					
<b>MUP-280R</b>	<b>INDIVIDUAL LESSONS: ROCK, BLUES, POP GUITAR, 2 CREDITS</b>																					
	<b>Prerequisites:</b> MUP-180R (6 credits)																					
	<b>Required:</b> Sophomore-level performance ability																					

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	Instructor		Tuition	Fee	Crs. Fee	
OC LCT	<b>MUP-286-01</b> 325250 TBA J. KLAUSE		\$246.00	\$26.00	\$299.00	\$571.00
<b>MUP-286J INDIVIDUAL LESSONS: JAZZ TRUMPET, 2 CREDITS</b>						
Prerequisites: MUP-186J (6 credits)						
Required: Sophomore-level performance ability						
OC LCT	<b>MUP-286J-01</b> 325253 TBA P. MAZZIO		\$246.00	\$26.00	\$299.00	\$571.00
<b>MUP-287 INDIVIDUAL LESSONS: FRENCH HORN, 2 CREDITS</b>						
Prerequisites: MUP-187 (6 credits)						
Corequisites: MUS-189						
Required: Sophomore-level performance ability						
OC LCT	<b>MUP-287-01</b> 325254 TBA R. OLASON		\$246.00	\$26.00	\$299.00	\$571.00
<b>MUP-288 INDIVIDUAL LESSONS: TROMBONE, 2 CREDITS</b>						
Prerequisites: MUP-188 (6 credits)						
Corequisites: MUS-189						
Required: Sophomore-level performance ability						
OC LCT	<b>MUP-288-01</b> 325256 TBA L. CAMPBELL		\$246.00	\$26.00	\$299.00	\$571.00
<b>MUP-288J INDIVIDUAL LESSONS: JAZZ TROMBONE, 2 CREDITS</b>						
Prerequisites: MUP-188J (6 credits)						
Required: Sophomore-level performance ability						
OC LCT	<b>MUP-288J-01</b> 325258 TBA L. CAMPBELL		\$246.00	\$26.00	\$299.00	\$571.00
<b>MUP-289 INDIVIDUAL LESSONS: EUPHONIUM, 2 CREDITS</b>						
Prerequisites: MUP-189 (6 credits)						
Corequisites: MUS-189						
Required: Sophomore-level performance ability						
OC LCT	<b>MUP-289-01</b> 325260 TBA G. MIDDLETON		\$246.00	\$26.00	\$299.00	\$571.00
<b>MUP-290 INDIVIDUAL LESSONS: TUBA, 2 CREDITS</b>						
Prerequisites: MUP-190 (6 credits)						
Corequisites: MUS-189						
Required: Sophomore-level performance ability						
OC LCT	<b>MUP-290-01</b> 325263 TBA TBA		\$246.00	\$26.00	\$299.00	\$571.00
<b>MUP-291 INDIVIDUAL LESSONS: PERCUSSION, 2 CREDITS</b>						
Prerequisites: MUP-191 (6 credits)						
Corequisites: MUS-189						
Required: Sophomore-level performance ability						
OC LCT	<b>MUP-291-01</b> 325265 TBA TBA		\$246.00	\$26.00	\$299.00	\$571.00
<b>MUP-291J INDIVIDUAL LESSONS: JAZZ PERCUSSION, 2 CREDITS</b>						
Prerequisites: MUP-191J (6 credits)						
Required: Sophomore-level performance ability						
OC LCT	<b>MUP-291J-01</b> 325267 TBA C. DOGGETT		\$246.00	\$26.00	\$299.00	\$571.00

**Nursing**

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*The Nursing program at Clackamas Community College is a full partner in the Oregon Consortium for Nursing Education (OCNE). The curriculum in OCNE nursing programs is a competency-based curriculum developed in collaboration with Oregon Health & Science University (OHSU) and other community colleges around the state. This curriculum, which has been approved by the Oregon State Board of Education as well as the Oregon State Board of Nursing, can ultimately culminate in a Baccalaureate of Science Degree with a focus in Nursing on the community college campus offered by OHSU.*

*Admission into the nursing program is by special application only. Acceptance to the nursing program allows for co-enrollment to Clackamas Community College and Oregon Health & Science University, School of Nursing.*

*The Nursing Assistant course, while not required to enter the Nursing program, provides a strong foundation regarding the delivery of care to clients in various settings.*

**NRS-110 FOUNDATIONS OF NURSING - HEALTH PROMOTION, 5 CREDITS**

This course introduces the learner to framework of the OCNE curriculum. The emphasis on health promotion across the life span includes learning about self-health as well as patient health practices. To support self and patient health practices, students learn to access research evidence about healthy lifestyle patterns and risk factors for disease/illness, apply growth and development theory, interview patients in a culturally sensitive manner, work as members of a multidisciplinary team giving and receiving feedback about performance, and use reflective thinking about their practice as nursing students. Populations studied in the course include children, adults, older adults and the family experiencing a normal pregnancy. Includes classroom and clinical learning experiences. The clinical portion of the course includes practice with therapeutic communication skills and selected core nursing skills identified in the OCNE Core Nursing Skills document.

**Required:** Acceptance into the CCC nursing program  
**Corequisites:** NRS-110C and NRS-230

HAR	<b>NRS-110-01</b> 325342 MF		\$615.00	\$65.00	\$300.00	\$980.00
	T. VANDERWERF					

**NRS-110C FOUNDATIONS OF NURSING - HEALTH PROMOTION CLINICAL, 4 CREDITS**

This course introduces the learner to framework of the OCNE curriculum. The emphasis on health promotion across the life span includes learning about self-health as well as client health practices. To support self and client health practices, students learn to access research evidence about healthy lifestyle patterns and risk factors for disease/illness, apply growth and development theory, interview clients in a culturally sensitive manner, work as members of a multidisciplinary team giving and receiving feedback about performance, and use reflective thinking about their practice as nursing students. Populations studied in the course include children, adults, older adults and the family experiencing a normal pregnancy. Includes classroom and clinical learning experiences.

**Required:** Acceptance into the CCC nursing program  
**Corequisites:** NRS-110 and NRS-230

HAR	<b>NRS-110C-01</b> 325343 TW		\$492.00	\$52.00	\$210.00	\$754.00
	T. VANDERWERF					

Course No	Course Title, Credits						Course No	Course Title, Credits					
	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total		Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total		
	Instructor		Tuition	Fee	Crs. Fee		Instructor		Tuition	Fee	Crs. Fee		

HAR	<b>NRS-110C-02</b>	<b>325344</b>	<b>TW</b>		<b>8:30 -1:20 PM</b>						
			<b>TH</b>		<b>11-12:50 PM</b>						
	T. VANDERWERF		\$492.00	\$52.00	\$210.00	\$754.00					
HAR	<b>NRS-110C-03</b>	<b>325346</b>	<b>TW</b>		<b>8:30 -1:20 PM</b>						
			<b>TH</b>		<b>9-10:50 AM</b>						
	T. VANDERWERF		\$492.00	\$52.00	\$210.00	\$754.00					

**NRS-222 NURSING IN ACUTE CARE II & END OF LIFE, 4 CREDITS**

This course builds on Nursing in Acute Care I, focusing on more complex and/or unstable patient care conditions, some of which may result in death. These patient care conditions require strong noticing and rapid decision making skills. Evidence base is used to support appropriate focused assessments, and effective, efficient nursing interventions. Life span and developmental factors, cultural variables, and legal aspects of care frame the ethical decision-making employed in patient choices for treatment or palliative care for disorders with an acute trajectory. Case scenarios incorporate prioritizing care needs, delegation and supervision, and family and patient teaching for either discharge planning or end-of-life care. Exemplars include acute conditions affecting multiple body systems. Includes classroom and clinical learning experiences.

**Required:** Acceptance into the CCC nursing program  
**Prerequisites:** NRS-112, NRS-112C, and NRS-233  
**Corequisites:** NRS-222C

HAR	<b>NRS-222-01</b>	<b>325347</b>	<b>M</b>		<b>8:30 -10:20 AM</b>						
			<b>M</b>		<b>11-12:50 PM</b>						
	K. RICHARDS		\$492.00	\$52.00	\$0.00	\$544.00					

**NRS-222C NURSING IN ACUTE CARE II & END OF LIFE CLINICAL, 5 CREDITS**

This course builds on NRS-112, and focuses on more complex and/or unstable patient care conditions, some of which may result in death. These patient care conditions require strong noticing and rapid decision making skills. Evidence base is used to support appropriate focused assessments, and effective, efficient nursing interventions. Life span and developmental factors, cultural variables, and legal aspects of care frame the ethical decision-making employed in patient choices for treatment or palliative care within the acute care setting. Case scenarios incorporate prioritizing care needs, delegation and supervision, and family and patient teaching for either discharge planning or end-of-life care. Exemplars include acute conditions affecting multiple body systems. Includes classroom and clinical learning experiences.

**Required:** Acceptance into the CCC nursing program  
**Prerequisites:** NRS-112, NRS-112C, and NRS-233  
**Corequisites:** NRS-222

HAR	<b>NRS-222C-01</b>	<b>325350</b>	<b>T</b>		<b>7-7:20 PM</b>						
	K. RICHARDS		\$615.00	\$65.00	\$180.00	\$860.00					
HAR	<b>NRS-222C-02</b>	<b>325351</b>	<b>T</b>		<b>7-7:20 PM</b>						
	K. RICHARDS		\$615.00	\$65.00	\$180.00	\$860.00					
HAR	<b>NRS-222C-03</b>	<b>325352</b>	<b>F</b>		<b>7-7:20 PM</b>						
	K. RICHARDS		\$615.00	\$65.00	\$180.00	\$860.00					
HAR	<b>NRS-222C-04</b>	<b>325354</b>	<b>TH</b>		<b>7-7:20 PM</b>						
	K. RICHARDS		\$615.00	\$65.00	\$180.00	\$860.00					
HAR	<b>NRS-222C-05</b>	<b>325356</b>	<b>TH</b>		<b>7-7:20 PM</b>						
	K. RICHARDS		\$615.00	\$65.00	\$180.00	\$860.00					

**NRS-230 CLINICAL PHARMACOLOGY I, 3 CREDITS**

**Campus Locations:**  
**HAR:** Harmony Community Campus  
**OC:** Oregon City Campus  
**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

**Distance Education Notification:**  
**ONL:** Online Only  
**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

**Other Coding Translations:**  
**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

This course introduces the theoretical background that enables students to provide safe and effective care related to drugs and natural products to persons throughout the lifespan. It includes the foundational concepts of principles of pharmacology, nonopioid analgesics, and antibiotics, as well as additional classes of drugs. Students will learn to make selected clinical decisions in the context of nursing regarding using current, reliable sources of information, understanding of pharmacokinetics and pharmacodynamics, developmental physiologic considerations, monitoring and evaluating the effectiveness of drug therapy, teaching persons from diverse populations regarding safe and effective use of drugs and natural products, intervening to increase therapeutic benefits and reduce potential negative effects, and communicating appropriately with other health professionals regarding drug therapy. Drugs are studied by therapeutic or pharmacological class using an organized framework.

**Required:** Acceptance into the CCC nursing program  
**Corequisites:** NRS-110 and NRS-110C

ONL	<b>NRS-230-01</b>	<b>325357</b>									
	K. SCHNEIDER		\$369.00	\$39.00	\$70.00	\$478.00					

**NUR-100 NURSING ASSISTANT I, 7 CREDITS**

Prepares the student to perform routine nursing assistant tasks to clients in sub-acute care settings as well as in the community. Includes 80 hours of didactic and skills lab instruction. May not be challenged. **Required:** Student Petition.

**Corequisites:** NUR-100C

HAR	<b>NUR-100-01</b>	<b>325359</b>	<b>T</b>		<b>8-11:20 AM</b>						
			<b>T</b>		<b>12:30 -2:20 PM</b>						
			<b>W</b>		<b>8-10:20 AM</b>						
			<b>W</b>		<b>10:30 -2:20 PM</b>						
			<b>TH</b>		<b>8-2:20 PM</b>						
	K. STIPE		\$861.00	\$91.00	\$300.00	\$1,252.00					

**Required:** Student Petition. Attend mandatory Zoom orientation meeting on Thursday, August 25, 2022, at 4:00pm to receive information on how to register. See Nursing Assistant webpage for more details.

**NUR-100C NURSING ASSISTANT I CLINICAL, 0 CREDIT**

Prepares the student to perform routine nursing assistant tasks to clients in hospitals, long-term and skilled care facilities, as well as the community. Includes 82 hours of clinical practicum. May not be challenged. **Required:** Student Petition.

**Corequisites:** NUR-100

HAR	<b>NUR-100C-01</b>	<b>325361</b>	<b>TBA</b>								
	K. STIPE		\$0.00	\$0.00	\$0.00	\$0.00					
	B. WILKINSON										

**Required:** Student Petition.

**NUR-101 CERTIFIED NURSING ASSISTANT II, 5 CREDITS**

This course prepares the student to perform routine nursing assistant level II tasks that are needed in the acute or skilled care setting. This course includes concepts of safety and complication prevention. Students will also learn how to communicate a person's response(s) to the nurse, and document and record outcomes of a person's care. **Required:** Student Petition.

**Required:** Attend CNA II mandatory orientation and complete all required data for Corporate Screening. Must have a current Certified Nursing Assistant I License in the state of Oregon with a copy of a current and active OSBN verification of license letter

**Corequisites:** NUR-101C

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z. Student should be 18 years of age or older

Course No	Course Title, Credits	Section No	Instructor	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Tuition	Fee	Time	Crs. Fee	Total
HAR	<b>NUR-101-01 325364</b>	T						8-10:50 AM		
		T						12-2:50 PM		
		M						8-10:50 AM		
		M						12-2:50 PM		
	B. WILKINSON			\$615.00	\$65.00	\$300.00	\$980.00			
	Required: Student Petition. See Nursing Assistant Webpage for more details.									
<b>NUR-101C CERTIFIED NURSING ASSISTANT II ACUTE CARE CLINICAL, 0 CREDIT</b>										
This course prepares the student to perform routine nursing assistant 2 acute care tasks that are needed in the acute care setting. This course requires a minimum of 30 hours of clinical instruction. Required: Student Petition.										
<b>Corequisites:</b> NUR-101										
HAR	<b>NUR-101C-01 325366</b>	TBA								
	B. WILKINSON			\$0.00	\$0.00	\$0.00	\$0.00			
	Required: Student Petition.									

**Philosophy**

<b>PHL-101 PHILOSOPHICAL PROBLEMS, 4 CREDITS</b>										
Introduces basic philosophical questions such as: What is reality? What is knowledge? What is truth? Can humans freely choose? What is human awareness? What is a meaningful life?										
<b>Recommended Prerequisites:</b> WRD-098 or placement in WR-121Z										
ONL LCT	<b>PHL-101-01 326231</b>									
	K. HADDIX			\$492.00	\$52.00	\$0.00	\$544.00			
<b>PHL-102 ETHICS, 4 CREDITS</b>										
Introduces the study of morality with concepts of good, harm, habits, character, perception, behavior and action. Also considers the different theories of human capacity for responsibility.										
<b>Recommended Prerequisites:</b> WRD-098 or placement in WR-121Z										
ONL LCT	<b>PHL-102-01 326233</b>									
	M. BAILEY			\$492.00	\$52.00	\$0.00	\$544.00			
	No textbook required.									
HAR HYB LCT	<b>PHL-102-30 326236</b>	W						10-11:50 AM		
	M. BAILEY			\$492.00	\$52.00	\$0.00	\$544.00			
	No textbook required.									
<b>PHL-103 CRITICAL REASONING, 4 CREDITS</b>										
Helps students identify and understand the process by which they themselves and others arrive at conclusions; improves their critical reasoning skills; introduces basic logical concepts of argument; and gives opportunity for students to apply course skills to relevant matters.										
<b>Recommended Prerequisites:</b> WRD-098 or placement in WR-121Z										
ONL LCT	<b>PHL-103-01 326238</b>									
	K. SEVERSON			\$492.00	\$52.00	\$0.00	\$544.00			

**Physical Education**

<b>PE-185 PHYSICAL ACTIVITY CLASSES, 1 CREDIT</b>										
<b>Recommended:</b> Current physical examination before enrolling										
OC LCT	<b>BASEBALL TECHNIQUES I, 1 CREDIT</b>									
	<b>PE-185-006 329263</b>	MTWTHF						3-4:50 PM		
	J. HOPPEL			\$123.00	\$13.00	\$30.00	\$166.00			
	Meets: 9/11-10/13. Required: Student Petition.									

Course No	Course Title, Credits	Section No	Instructor	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Tuition	Fee	Time	Crs. Fee	Total
OC LCT	<b>BASKETBALL I, 1 CREDIT</b>									
	<b>PE-185-001 326071</b>	MW						10-11:20 AM		
	C. WEGNER			\$123.00	\$13.00	\$30.00	\$166.00			
OC LCT	<b>BASKETBALL, MEN'S CNDTNG I, 1 CREDIT</b>									
	<b>PE-185-004 329261</b>	MWF						12-1:50 PM		
	C. WEGNER			\$123.00	\$13.00	\$30.00	\$166.00			
	Required: Student Petition.									
OC LCT	<b>BASKETBALL, WOMEN'S CNDTNG I, 1 CREDIT</b>									
	<b>PE-185-005 329262</b>	MWF						4-5:50 PM		
	K. GUELSORF			\$123.00	\$13.00	\$30.00	\$166.00			
	Required: Student Petition.									
ONL LCT	<b>CROSS TRAINING I, 1 CREDIT</b>									
	<b>PE-185-028 329264</b>									
	B. STAMME			\$123.00	\$13.00	\$30.00	\$166.00			
ONL LCT	<b>CROSS TRAINING I, 1 CREDIT</b>									
	<b>PE-185-029 329265</b>									
	J. RHODEN			\$123.00	\$13.00	\$30.00	\$166.00			
ONL LCT	<b>CROSS TRAINING I, 1 CREDIT</b>									
	<b>PE-185-031 329266</b>									
	B. STAMME			\$123.00	\$13.00	\$30.00	\$166.00			
OC LCT	<b>SOFTBALL TECHNIQUES I, 1 CREDIT</b>									
	<b>PE-185-064 329267</b>	MTWTH						1-2:50 PM		
	J. BUEL			\$123.00	\$13.00	\$30.00	\$166.00			
	Meets: 9/11-10/13. Required: Student Petition.									
OC LCT	<b>TRACK FUNDAMENTALS I, 1 CREDIT</b>									
	<b>PE-185-082 329268</b>	MWF						1:30 -2:50 PM		
	TBA			\$123.00	\$13.00	\$30.00	\$166.00			
	Required: Student Petition.									
ONL LCT	<b>WALK, JOG, FITNESS I, 1 CREDIT</b>									
	<b>PE-185-025 326090</b>									
	K. MCHONE			\$123.00	\$13.00	\$30.00	\$166.00			
ONL LCT	<b>WEIGHT TRAINING I, 1 CREDIT</b>									
	<b>PE-185-018 326086</b>									
	C. WEGNER			\$123.00	\$13.00	\$30.00	\$166.00			
OC LCT	<b>WEIGHT TRAINING I, 1 CREDIT</b>									
	<b>PE-185-039 326097</b>	TTH						10-11:20 AM		
	C. WEGNER			\$123.00	\$13.00	\$30.00	\$166.00			
OC LCT	<b>WRESTLING CONDITIONING I, 1 CREDIT</b>									
	<b>PE-185-076 329269</b>	MTWTHF						6:30 -7:50 AM		
	R. SANCHEZ			\$123.00	\$13.00	\$30.00	\$166.00			
	Meets: 9/5-10/6. Required: Student Petition.									
ONL LCT	<b>YOGA I, 1 CREDIT</b>									
	<b>PE-185-008 326082</b>									
	E. HANCOCK			\$123.00	\$13.00	\$0.00	\$136.00			
<b>PE-194</b>	<b>PROFESSIONAL ACTIVITIES, 1 CREDIT</b>									
Team skills and strategy courses. Designed to provide the student with basic skills and methodology necessary to conduct physical fitness programs in the school, corporate, and community setting. Emphasis is placed on fitness concepts, techniques of weight training and aerobic exercises to encourage life-long physical activity. Course offerings are: baseball, basketball, cross-country, soccer, softball, track and field, volleyball, and wrestling. Required: Student Petition.										
OC	<b>CR COUNTRY SKILLS &amp; STRATEGIES, 1 CREDIT</b>									
	<b>PE-194-02 329270</b>	MTWTHF						1:30 -2:50 PM		
	J. MARTINEAU			\$123.00	\$13.00	\$30.00	\$166.00			
	Required: Student Petition.									

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**Other Coding Translations:**  
**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

**oc** **SOCCER SKILLS & STRATEGIES, 1 CREDIT**  
**PE-194-03 329271 TTH 10-11:50 AM**  
 T. LEWIS \$123.00 \$13.00 \$30.00 \$166.00  
 Required: Student Petition.

**oc** **VOLLEYBALL SKILLS & STRATEGIES, 1 CREDIT**  
**PE-194-04 329273 TTH 6-7:50 PM**  
 A. ITAMI \$123.00 \$13.00 \$30.00 \$166.00  
 Required: Student Petition.

**PE-240 STRENGTH & CONDITIONING THEORY & TECHNIQUES, 3 CREDITS**

An overview of introductory exercise physiology, biomechanics, program design, and exercise techniques that prepares students to design and implement physical training programs and exercise for clients and athletes.

**oc HYB** **PE-240-01 326107 W 11-11:50 AM**  
 K. MCHONE \$369.00 \$39.00 \$0.00 \$408.00

**PE-270 SPORT AND EXERCISE PSYCHOLOGY, 3 CREDITS**

The course is designed to provide students with the basic understanding and knowledge of psychological skills used to improve physical performance in themselves, peers, teammates, and athletes they coach. The course would be well-suited for athletes, coaches, or exercise leaders.

**ONL** **PE-270-01 326108**  
 K. MCHONE \$369.00 \$39.00 \$0.00 \$408.00

**PE-280 PHYSICAL EDUCATION/CWE, 2-6 CREDITS**

Cooperative work experience. Provides students with on-the-job experience and training related to the Physical Education field. Covers job problems and procedures, evaluation of students' job performance by qualified college staff and site supervision. Variable Credit: 2-6 credits. May be repeated for up to 12 credits. Required: Student Petition.

**Corequisites:** CWE-281

**ONL** **PE-280-01 326109**  
 T. NELSON \$738.00 \$78.00 \$45.00 \$861.00V  
 Required: Student Petition. Corequisite: Take 1 of the following CWE-281-06.

**PE-294A PHILOSOPHY OF COACHING, 2 CREDITS**

This course is designed to enhance the leadership, teaching and management skills of coaches as they relate to interacting with athletes at all levels. Group discussions and seminar sessions relating to coaching philosophies, ethics, practice planning, motivation, and dealing with parents, peers and assistants.

**ONL** **PE-294A-01 326123**  
 P. FISKUM \$246.00 \$26.00 \$0.00 \$272.00

**Physics**

**PH-121 ASTRONOMY, 4 CREDITS**

A lab course including the history of astronomy, the Earth and moon, all planets in our solar system, along with asteroids, meteors and comets.

**Prerequisites:** MTH-065 or MTH-098 with a C or better or placement in MTH-095

**Corequisites:** PH-121L

**Prerequisites:** WRD-090 or placement in WRD-098

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

**ONL LCT** **PH-121-40 326124**  
 J. DICKINSON \$492.00 \$52.00 \$25.00 \$569.00  
 Corequisite: Take the following PH-121L-40.

**PH-121L ASTRONOMY LAB, 0 CREDIT**

Lab course for PH-121L

**Corequisites:** PH-121

**ONL LCT** **PH-121L-40 326126**  
 J. DICKINSON \$0.00 \$0.00 \$0.00 \$0.00  
 Corequisite: Take the following PH-121-40.

**PH-122 GENERAL ASTRONOMY, 4 CREDITS**

A lab course including the properties of our sun, other stars and stellar evolution.

**Prerequisites:** PH-121 or GS-107

**Corequisites:** PH-122L

**ONL** **PH-122-40 329299**  
 J. DICKINSON \$492.00 \$52.00 \$25.00 \$569.00  
 Corequisite: Take the following PH-122L-40.

**PH-122L GENERAL ASTRONOMY LAB, 0 CREDIT**

Lab course for PH-122

**Corequisites:** PH-122

**ONL** **PH-122L-40 329300**  
 J. DICKINSON \$0.00 \$0.00 \$0.00 \$0.00  
 Corequisite: Take the following PH-122-40.

**PH-201 GENERAL PHYSICS, 5 CREDITS**

A lab course covering vectors, motion, kinematics, forces and Newton's laws, gravity, the conservation laws for momentum and energy, rotational motion, and oscillations.

**Prerequisites:** MTH-112Z or placement in MTH-251

**Corequisites:** PH-201L and PH-201S

**Prerequisites:** WRD-090 with a C or better or placement in WRD-098

**Recommended Prerequisites:** A year of high-school physics or PH-150

**oc** **PH-201-01 326128 MW 11-12:20 PM**  
 T. STUFFLEBEAM \$615.00 \$65.00 \$50.00 \$730.00  
 Corequisite: Take 2 of the following PH-201L-01, PH-201L-02, PH-201L-03, PH-201L-04, PH-201S-01.

**PH-201L GENERAL PHYSICS LAB, 0 CREDIT**

Lab course for PH-201

**Corequisites:** PH-201 and PH-201S

**oc** **PH-201L-01 326131 T 9-11:50 AM**  
 G. BOSTROM \$0.00 \$0.00 \$0.00 \$0.00  
 Corequisite: Take the following PH-201-01, PH-201S-01.

**oc** **PH-201L-02 326133 T 1-3:50 PM**  
 T. STUFFLEBEAM \$0.00 \$0.00 \$0.00 \$0.00  
 Corequisite: Take the following PH-201-01, PH-201S-01.

**oc** **PH-201L-03 326135 TH 1-3:50 PM**  
 G. BOSTROM \$0.00 \$0.00 \$0.00 \$0.00  
 Corequisite: Take the following PH-201-01, PH-201S-01.

**oc** **PH-201L-04 326138 F 11-1:50 PM**  
 G. BOSTROM \$0.00 \$0.00 \$0.00 \$0.00  
 Corequisite: Take the following PH-201-01, PH-201S-01.

**PH-201S GENERAL PHYSICS SEMINAR, 0 CREDIT**

Seminar course for PH-201

**Corequisites:** PH-201 and PH-201L

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- HYB:** In-person plus online work

**Other Coding Translations:**

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**ESPAÑOL:** Enseñado en español

**LCT:** Low-Cost Text



Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total
Instructor	Tuition	Fee	Crs. Fee			

oc **PH-201S-01 326140 MW 12:25 -12:50 PM**  
 T. STUFFLEBEAM \$0.00 \$0.00 \$0.00 \$0.00  
 Corequisite: Take 2 of the following PH-201-01, PH-201L-01, PH-201L-02, PH-201L-03, PH-201L-04.

**PH-211 GENERAL PHYSICS WITH CALCULUS, 5 CREDITS**

A lab course covering vectors, motion, kinematics, forces and Newton's laws, gravity, conservation laws for momentum and energy, rotational motion, and oscillations.

**Prerequisite or Corequisite:** MTH-252

**Corequisites:** PH-211L and PH-211S

**Prerequisite or Corequisite:** WRD-090 with a C or better or placement in WRD-098

**Recommended Prerequisites:** MTH-254. A year of high-school physics or PH-150

oc **PH-211-01 326142 MW 11-12:20 PM**  
 G. BOSTROM \$615.00 \$65.00 \$50.00 \$730.00  
 Corequisite: Take 2 of the following PH-211L-01, PH-211L-02, PH-211L-03, PH-211L-04, PH-211S-01, PH-211S-02, PH-211S-03.

oc **PH-211-02 326146 MW 1-2:20 PM**  
 G. BOSTROM \$615.00 \$65.00 \$50.00 \$730.00  
 Corequisite: Take 2 of the following PH-211L-01, PH-211L-02, PH-211L-03, PH-211L-04, PH-211S-01, PH-211S-02, PH-211S-03.

**PH-211L GENERAL PHYSICS WITH CALCULUS LAB, 0 CREDIT**

Lab course for PH-211

**Corequisites:** PH-211 and PH-211S

oc **PH-211L-01 326148 T 9-11:50 AM**  
 G. BOSTROM \$0.00 \$0.00 \$0.00 \$0.00  
 Corequisite: Take 2 of the following PH-211-01, PH-211-02, PH-211S-01, PH-211S-02, PH-211S-03.

oc **PH-211L-02 326150 T 1-3:50 PM**  
 G. BOSTROM \$0.00 \$0.00 \$0.00 \$0.00  
 Corequisite: Take 2 of the following PH-211-01, PH-211-02, PH-211S-01, PH-211S-02, PH-211S-03.

oc **PH-211L-03 326151 TH 1-3:50 PM**  
 G. BOSTROM \$0.00 \$0.00 \$0.00 \$0.00  
 Corequisite: Take 2 of the following PH-211-01, PH-211-02, PH-211S-01, PH-211S-02, PH-211S-03.

oc **PH-211L-04 326152 F 11-1:50 PM**  
 G. BOSTROM \$0.00 \$0.00 \$0.00 \$0.00  
 Corequisite: Take 2 of the following PH-211-01, PH-211-02, PH-211S-01, PH-211S-02, PH-211S-03.

**PH-211S GENERAL PHYSICS WITH CALCULUS SEMINAR, 0 CREDIT**

Seminar course for PH-211

**Corequisites:** PH-211 and PH-211L

oc **PH-211S-01 326153 TH 4-4:50 PM**  
 G. BOSTROM \$0.00 \$0.00 \$0.00 \$0.00  
 Corequisite: Take 2 of the following PH-211-01, PH-211-02, PH-211L-01, PH-211L-02, PH-211L-03, PH-211L-04.

oc **PH-211S-02 326154 F 2-2:50 PM**  
 G. BOSTROM \$0.00 \$0.00 \$0.00 \$0.00  
 Corequisite: Take 2 of the following PH-211-01, PH-211-02, PH-211L-01, PH-211L-02, PH-211L-03, PH-211L-04.

oc **PH-211S-03 326155 F 3-3:50 PM**  
 G. BOSTROM \$0.00 \$0.00 \$0.00 \$0.00  
 Corequisite: Take 2 of the following PH-211-01, PH-211-02, PH-211L-01, PH-211L-02, PH-211L-03, PH-211L-04.

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Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total
Instructor	Tuition	Fee	Crs. Fee			

**Political Science**

**PS-200 INTRODUCTION TO POLITICAL SCIENCE, 4 CREDITS**

A general introduction to the field of political science. Introduces and expands on basic political concepts and themes, explores political theory and ideology, and considers the dynamics of political institutions and government and how both are integrated into political life.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

ONL **PS-200-01 326241**  
 J. HITE \$492.00 \$52.00 \$0.00 \$544.00

**PS-201 AMERICAN GOVERNMENT AND POLITICS, 4 CREDITS**

Examines the founding principles of the American government, as well as the Constitution, the separation of powers, and the three branches of government, political parties and elections, and the role of interest groups and the media in the political process. In addition, assesses the growing power of the executive branch, the expansion and reach of the federal bureaucracy, governmental policies, and the civil liberties and civil rights of American citizens.

**Recommended Prerequisites:** WRD-090 or placement in WRD-098

ONL **PS-201-01 329375**  
 J. HITE \$492.00 \$52.00 \$0.00 \$544.00

**PS-280 POLITICAL SCIENCE/CWE, 2-6 CREDITS (VAR)**

Cooperative work experience. Provides students with on-the-job work experience in the field of political science. Variable Credit: 2-6 credits. Required: Student Petition.

**Corequisites:** CWE-281

oc **PS-280-01 326245**  
 J. KISSLER \$738.00 \$78.00 \$45.00 \$861.00V  
 Required: Student Petition. Corequisite: Take 1 of the following CWE-281-06.

**Psychology**

**PSY-101 HUMAN RELATIONS, 3 CREDITS**

Focuses on developing skills and strategies necessary to build and maintain successful personal and professional relationships. Applies psychological principles to understanding relationships with ourselves and others in social, workplace, and digital contexts. Includes an overview of basic psychology principles in addition to skill development in the following areas: dealing with emotions, interpersonal communication, developing close relationships, resolving conflicts, and managing stress. Includes individual and group activities, lecture, and discussions with an emphasis on student participation.

**Recommended Prerequisites:** WRD-090 or placement in WRD-098

OC LCT **PSY-101-01 326248 MW 10-11:20 AM**  
 E. SAUBER \$369.00 \$39.00 \$0.00 \$408.00  
 Online textbook provided first day.

ONL **PSY-101-02 326252**  
 M. MALLATT \$369.00 \$39.00 \$0.00 \$408.00

ONL **PSY-101-03 326253**  
 M. MALLATT \$369.00 \$39.00 \$0.00 \$408.00

HAR **PSY-101-30 326257 T 6-8:50 PM**  
 T. THOMAS \$369.00 \$39.00 \$0.00 \$408.00

**PSY-200 INTRODUCTION TO PSYCHOLOGY: PART 1, 4 CREDITS**

**Other Coding Translations:**  
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**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total	Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor	Instructor	Tuition	Fee	Crs. Fee			Instructor	Instructor	Tuition	Fee	Crs. Fee	
	Introduction to the science of psychology and the application of psychological concepts as they relate to everyday life. Emphasis will be placed on building a foundation of psychological concepts, theories, and principles related to research methods, the biological basis of behavior, human development, memory, cognition and language, consciousness, sensory processes, perception, and related topics. PSY-200 and PSY-205 are not sequential.						HAR HYB	<b>PSY-219-30</b>	<b>326285 TH</b>			<b>10-11:50 AM</b>	
		J. KISSLER	\$492.00	\$52.00	\$0.00	\$544.00		S. KISER		\$492.00	\$52.00	\$0.00	\$544.00
		Online textbook provided first day.											
ONL	<b>PSY-200-02</b>	<b>326262</b>											
	S. TOBIN		\$492.00	\$52.00	\$0.00	\$544.00							
	<b>PSY-205 INTRODUCTION TO PSYCHOLOGY: PART 2, 4 CREDITS</b>												
	Introduction to the science of psychology and the application of psychological concepts as they relate to everyday life. Emphasis will be placed on building a foundation of psychological concepts, theories, and principles related to social psychology, learning, motivation and emotion, personality, psychological disorders, therapies, and related topics. PSY-200 and PSY-205 are not sequential.												
OC LCT	<b>PSY-205-01</b>	<b>326264 TTH</b>											
	J. KISSLER		\$492.00	\$52.00	\$0.00	\$544.00							
	Online textbook provided first day.												
ONL LCT	<b>PSY-205-02</b>	<b>326266</b>											
	I. MANCINELLI-FRANCONI		\$492.00	\$52.00	\$0.00	\$544.00							
	Online textbook provided first day.												
	<b>PSY-215 INTRODUCTION TO DEVELOPMENTAL PSYCHOLOGY, 4 CREDITS</b>												
	Research and theories regarding the development of the individual from conception to death, including physical, social and cognitive changes.												
OC	<b>PSY-215-01</b>	<b>326268 MW</b>											
	J. VELEZ		\$492.00	\$52.00	\$0.00	\$544.00							
ONL LCT	<b>PSY-215-02</b>	<b>326272</b>											
	T. THOMAS		\$492.00	\$52.00	\$0.00	\$544.00							
	Online textbook provided first day.												
ONL LCT	<b>PSY-215-03</b>	<b>326273</b>											
	I. MANCINELLI-FRANCONI		\$492.00	\$52.00	\$0.00	\$544.00							
	Online textbook provided first day.												
HAR HYB	<b>PSY-215-30</b>	<b>326276 TH</b>											
	S. KISER		\$492.00	\$52.00	\$0.00	\$544.00							
	<b>PSY-219 INTRODUCTION TO ABNORMAL PSYCHOLOGY, 4 CREDITS</b>												
	Introduction to abnormal psychology, including disorders and approaches to treatment.												
OC LCT	<b>PSY-219-01</b>	<b>326279 TTH</b>											
	E. SAUBER		\$492.00	\$52.00	\$0.00	\$544.00							
	Online textbook provided first day.												
ONL LCT	<b>PSY-219-02</b>	<b>326281</b>											
	E. SAUBER		\$492.00	\$52.00	\$0.00	\$544.00							
	Online textbook provided first day.												
ONL	<b>PSY-219-03</b>	<b>326282</b>											
	K. KRASKA		\$492.00	\$52.00	\$0.00	\$544.00							

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**Other Coding Translations:**  
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**ESPAÑOL:** Enseñado en español  
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Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total
Instructor	Tuition	Fee	Crs. Fee			
OC	<b>R-280-01</b> 326301 J. KISSLER	\$738.00	\$78.00	\$45.00	\$861.00V	
Required: Student Petition. Corequisite: Take 1 of the following CWE-281-06.						

### Renewable Energy Technology

All degree seeking students should arrange to speak to a faculty advisor prior to registering. Call 503-594-3318 for more information, or contact Advising, 503-594-3475.

#### RET-200 RENEWABLE ENERGY SYSTEMS, 2 CREDITS

This course provides a survey of various renewable energy systems. Participants will learn about the benefits and limitations of each type of energy source as well as their functional principles. Students will participate in several field learning exercises related to energy systems. The intended audiences are technical students wishing to explore the Renewable Energy field and students from the humanities and social sciences wanting a better understanding of this socially important technology.

OC	<b>RET-200-01</b> 326156 M	1-2:50 PM
A. FOUHY	\$246.00	\$26.00 \$120.00 \$392.00

#### RET-213 RENEWABLE ENERGY III: INSTALLATION & MAINTENANCE, 3 CREDITS

The third in a series of technical courses, Renewable Energy III: Installation and Maintenance will provide an introduction to installation and maintenance of renewable energy systems for commercial and residential installations. Students will apply their knowledge of electro-mechanical systems to the application of these systems. Topics covered will include site survey, site preparation, building codes, measurement tools, preventative maintenance and worksite safety. Includes hands-on lab exercises.

Prerequisites: RET-211

OC HYB	<b>RET-213-01</b> 326158 MW	10-12:50 PM
A. FOUHY	\$369.00	\$39.00 \$90.00 \$498.00

#### RET-240 ALTERNATIVE FUELS, 4 CREDITS

Offers students familiarity and entry level skills to work with alternative fuel systems. Explores (technically, economically and ecologically) the following alternative fuels: bio-diesel, vegetable oils, electricity, ethanol, hydrogen, propane, methanol, natural gas, heat engines, fuel cell & hybrid vehicles.

HAR HYB	<b>RET-240-01</b> 326163 MW	6-9:50 PM
A. FOUHY	\$492.00	\$52.00 \$175.00 \$719.00

#### RET-280 RENEWABLE ENERGY/CWE, 1-12 CREDITS

Cooperative work experience. Major emphasis on work-based learning experience in the renewable energy field. Coordination of instruction and evaluation of student job performance will be provided by college faculty in conjunction with the student's employer/supervisor. Variable Credit: 1-12 credits. Required: Student Petition.

Corequisites: CWE-281

ONL	<b>RET-280-01</b> 326166	
M. MATTSON	\$1,476.0	\$156.00 \$75.00 \$1,707.00V
Required: Student Petition. Corequisite: Take 1 of the following CWE-281-06.		

### Small Business Development Center

#### Campus Locations:

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#### ESPAÑOL: Enseñado en español

**LCT:** Low-Cost Text

Registration for these workshops does not require college admission. E-mail [bizcenter@clackamas.edu](mailto:bizcenter@clackamas.edu) for online registration instructions.

For more information on these classes or other questions regarding your small business needs, contact the Small Business Development Center (SBDC) at 503-594-0738. Website: [www.oregonsbdc.org/clackamas](http://www.oregonsbdc.org/clackamas)

#### SBM-010 REAL ESTATE BROKER LICENSE, 0 CREDIT

Prepares students to qualify for the Oregon Real Estate Broker's License exam by studying statutes, rules and anti-discrimination laws pertaining to the licensing and professional real estate activity required by all licensees of the State of Oregon.

REM	<b>SBM-010-01FA</b>	329316 TH	6-8:50 PM
TBA		S	9-4:50 PM
		\$0.00	\$0.00 \$600.00 \$600.00

#### SBM-011 PROPERTY MANAGEMENT PRE-LICENSE, 0 CREDIT

Prepares students to qualify for the Oregon Real Estate Property Management License exam by studying laws and statutes pertaining to the licensing and professional property management activity required by all licensees of the State of Oregon.

REM	<b>SBM-011-01FA</b>	329312 W	6-7:50 PM
TBA			
		\$0.00	\$0.00 \$600.00 \$600.00

#### SBM-020 SMALL BUSINESS GREENHOUSE, 0 CREDIT

Two-term intensive training program designed to assist entrepreneurs in planning their business startups, and to develop existing businesses to make them more profitable and to create jobs. Students do extensive individual work on developing business plans with counseling from instructor.

REM	<b>SBM-020-01FA</b>	329323 T	6:30 -9:20 PM
J. SELBY		\$0.00	\$0.00 \$495.00 \$495.00
REM	<b>SBM-020-02FA</b>	329324 T	6:30 -9:20 PM
J. SELBY		\$0.00	\$0.00 \$150.00 \$150.00

#### SBM-021 SMALL BUSINESS MANAGEMENT I, 0 CREDIT

Part 1 of a multi-year program to help owners and managers of established businesses manage more effectively and achieve success. Course consists of class meetings, individual business counseling, peer networking, and work in/on the business. Class topics emphasize financial analysis, goals, and communication.

HAR	<b>SBM-021-01FA</b>	329317 TH	1-3:50 PM
R. CAMPBELL		\$0.00	\$0.00 \$695.00 \$695.00

#### SBM-024 SUCCESSION PLANNING, 0 CREDIT

Learn how to harvest your small farm business, not just your crops. Succession planning in small farm ownership is a critical and complex 3-10 year process that, when done properly, helps farmers maximize their return on their farm investment so they can reach their long-term goals in retirement. This hands-on, 12 month program is designed to teach farmers and individuals who want to buy a farm, how to make it happen. Course consists of monthly class meetings, individual business counseling, peer networking, and work in/on the business.

Course No	Course Title, Credits	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
Section No	Instructor	Tuition	Fee	Crs. Fee	
REM	<b>SBM-024-01FA</b> D. TOURNEY	329319	TH	1-3:50 PM	\$500.00
		\$0.00	\$0.00	\$500.00	\$500.00

**SBM-028 SMALL BUSINESS MANAGEMENT I FOR CONSTRUCTION CONTRACTORS, 0 CREDIT**

Provides information on starting and growing a successful construction business. Teaches students marketing techniques, estimating methods, tax strategies and recordkeeping. Discusses best practices of working with subcontractors and hiring and managing employees.

REM	<b>SBM-028-01FA</b> D. TOURNEY	329320	W	6-7:20 PM	\$450.00
		\$0.00	\$0.00	\$450.00	\$450.00

**SBM-029 SMALL BUSINESS MANAGEMENT II FOR CONSTRUCTION CONTRACTORS, 0 CREDIT**

Provides information on continuing to grow a successful construction business. Teaches students technology, marketing, construction math, risk management, financial reporting, safety, payroll and government contracting.

REM	<b>SBM-029-01FA</b> D. TOURNEY	329321	W	6-7:20 PM	\$450.00
		\$0.00	\$0.00	\$450.00	\$450.00

**SBM-030 BUSINESS RECOVERY SMALL BUSINESS MANAGEMENT I, 0 CREDIT**

Provides education for assessment of existing business model, diagnosis of the business and a prescriptive action plan to improve the business. Teaches students to research, study and apply content learned in class.

REM	<b>SBM-030-01FA</b> D. TOURNEY	329322	T	6:30 -7:50 PM	\$350.00
		\$0.00	\$0.00	\$350.00	\$350.00

**XSBM-0003 GOING INTO BUSINESS, 0 CREDIT**

Going Into Business orientation introduces the steps you need to take to start-up and successfully operate a small business in Oregon.

REM	<b>XSBM-0003-01FA</b> J. SELBY	329309	TH	6:30 -9:20 PM	\$0.00
		\$0.00	\$0.00	\$0.00	\$0.00
REM	<b>XSBM-0003-02FA</b> J. SELBY	329310	TH	6:30 -9:20 PM	\$0.00
		\$0.00	\$0.00	\$0.00	\$0.00
REM	<b>XSBM-0003-03FA</b> J. SELBY	329311	TH	6:30 -9:20 PM	\$0.00
		\$0.00	\$0.00	\$0.00	\$0.00

**XSBM-0011 QUICKBOOKS PRO: PART I, 0 CREDIT**

Learn how to set up and use QuickBooks. Students enter company, customer and vendor information, produce invoices, accept payments, make deposits and pay bills using QuickBooks.

HAR	<b>XSBM-0011-21FA</b> C. WEESNER	329313	W	6-8:50 PM	\$269.00
		\$0.00	\$0.00	\$269.00	\$269.00

**Social Science**

**SSC-235 PERSPECTIVES ON TERRORISM, 4 CREDITS**

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**ESPAÑOL:** Enseñado en español  
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Course No	Course Title, Credits	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
Section No	Instructor	Tuition	Fee	Crs. Fee	
OC	<b>SSC-235-01</b> J. FLOWERS	329283	TTH	1-2:50 PM	\$544.00
		\$492.00	\$52.00	\$0.00	\$544.00

**Sociology**

**SOC-204 INTRODUCTION TO SOCIOLOGY, 4 CREDITS**

This course offers an introduction to the field of sociology. Sociology is the scientific study of human behavior in society. In this course we will introduce and discuss issues including the sociological imagination, culture, socialization, deviance, authority, religion, science and methods of sociological research. Various sociological theories will be introduced and utilized to explore and enhance our understanding of these issues.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

OC HYB	<b>SOC-204-01</b> E. PFEIFER	326307	W	10-11:50 AM	\$544.00
		\$492.00	\$52.00	\$0.00	\$544.00
OC HYB	<b>SOC-204-02</b> E. PFEIFER	326309	TH	10-11:50 AM	\$544.00
		\$492.00	\$52.00	\$0.00	\$544.00
HAR HYB	<b>SOC-204-30</b> J. FORBES	326312	T	1-2:50 PM	\$544.00
		\$492.00	\$52.00	\$0.00	\$544.00

**SOC-205 SOCIAL STRATIFICATION & SOCIAL SYSTEMS, 4 CREDITS**

This course explores the inequality that exists in our society. Social stratification is the unequal distribution of resources and opportunities in a society. Issues like gender, race, poverty, education and capitalism will be explored and discussed in an attempt to understand their impact on the inequality that we experience in our society. Various sociological theories will be introduced and utilized to explore and enhance our understanding of these issues.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

OC HYB	<b>SOC-205-01</b> E. PFEIFER	326314	W	1-2:50 PM	\$544.00
		\$492.00	\$52.00	\$0.00	\$544.00
ONL	<b>SOC-205-02</b> J. LOVELESS	326319			\$544.00
		\$492.00	\$52.00	\$0.00	\$544.00

**SOC-206 INSTITUTIONS & SOCIAL CHANGE, 4 CREDITS**

This course explores how people can change their society. Social change is a process that can be used by people in a society, to change and improve the functioning of their society. This course will explore and discuss how people-led social movements, in the past and in the present, can be developed, organized, and implemented to accomplish social change.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

OC HYB LCT	<b>SOC-206-01</b> E. PFEIFER	326321	TH	1-2:50 PM	\$544.00
		\$492.00	\$52.00	\$0.00	\$544.00

**SOC-210 MARRIAGE, FAMILY, & INTIMATE RELATIONS, 4 CREDITS**

This course will introduce students to the study of marriage, intimate relations and family systems from the sociological viewpoint. Students will examine the ways in which race, class, gender, sexuality, community, and society influence patterns of courtship, intimate relations, marriage, and family, and explore the various challenges facing families today.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	
ONL	<b>SOC-210-01 326330</b> J. LOVELESS		\$492.00	\$52.00	\$0.00	\$544.00

**SOC-280 SOCIOLOGY/CWE, 2-6 CREDITS (VAR)**

Cooperative Work Experience. This course allows students who are already working in the field of sociology to earn college credit for that work. Variable Credit: 2-6 credits. Required: Student Petition.

**Corequisites:** CWE-281

oc	<b>SOC-280-01 326338</b> E. PFEIFER		\$738.00	\$78.00	\$45.00	\$861.00V
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Required: Student Petition. Corequisite: Take 1 of the following CWE-281-06.

**Statistics**

**STAT-243Z ELEMENTARY STATISTICS I, 4 CREDITS**

A first course in statistics focusing on the interpretation and communication of statistical concepts. Introduces exploratory data analysis, descriptive statistics, sampling methods and distributions, point and interval estimates, hypothesis tests for means and proportions, and elements of probability and correlation. Technology will be used when appropriate.

**Prerequisites:** MTH-105Z or MTH-111Z with a C or better, or placement in STAT-243Z

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

OC HYB LCT	<b>STAT-243Z-01 326195 MW</b> M. PRICE		\$492.00	\$52.00	\$20.00	\$564.00
OC HYB LCT	<b>STAT-243Z-02 326197 TTH</b> K. AMREIN		\$492.00	\$52.00	\$20.00	\$564.00
ONL LCT	<b>STAT-243Z-10 326200</b> C. KYSER		\$492.00	\$52.00	\$20.00	\$564.00
ONL LCT	<b>STAT-243Z-11 326201</b> C. KYSER		\$492.00	\$52.00	\$20.00	\$564.00
ONL LCT	<b>STAT-243Z-12 326203</b> C. KYSER		\$492.00	\$52.00	\$20.00	\$564.00

**Theatre Arts**

**TA-101 APPRECIATION OF THEATRE, 4 CREDITS**

Students will be introduced to the many aspects of theatre arts by attending multiple area productions. Plays will be reviewed and evaluated through writing assignments and discussions.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

OC LCT	<b>TA-101-01 325348 TH</b> TBA		\$492.00	\$52.00	\$110.00	\$654.00
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**TA-111 FUNDAMENTALS OF TECHNICAL THEATRE, 4 CREDITS**

First class of a three part series. Basic study and practice in the collaborative techniques of mounting various types of productions for presentation. Includes basic principles and techniques in stage design, construction, and lighting. Flexible laboratory sessions available. Students must attend a performance as well as participate in the focus and strike (10 total hours) of a production. Students are required to maintain an independent journal/study (12 total hours) of outside class activity and/or observations of Technical Theatre applications.

OC LCT	<b>TA-111-01 325349 TTH</b> C. WHITTEN		\$492.00	\$52.00	\$35.00	\$579.00
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**TA-121 COSTUMING I, 3 CREDITS**

**Campus Locations:**

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**LCT:** Low-Cost Text

First in a three-part series. Study and practice in theatrical costuming techniques for various types of live theatrical productions. Students will analyze scripts, research historical background, and study period fashion to develop character wardrobes. This is a project-based course where students will construct and tailor costume and prop pieces for cast members. No experience necessary; limited seats.

OC LCT	<b>TA-121-01 325355 MW</b> A. SCHLUCHTER		\$369.00	\$39.00	\$20.00	\$428.00
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**TA-141 ACTING I, 4 CREDITS**

Studies the methods, techniques, and theories of acting as an art form. Students perform acting exercises and monologues/scenes from dramatic literature, attend lectures, and participate in work-shopping and discussion. Written work is assigned that includes response and analysis papers. Introduces vocal, physical, and script analysis skills. First in a series.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

OC LCT	<b>TA-141-01 325358 MW</b> TBA		\$492.00	\$52.00	\$35.00	\$579.00
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**TA-153 THEATRE REHEARSAL & PERFORMANCE, 1-3 CREDITS (VAR)**

Training in theatre production through intensive study and rehearsal of scenes and plays for public performance. Variable Credit: 1-3 credits. May be repeated for up to 6 credits. Required: Student Petition.

**Required:** Successful audition/interview

**Recommended Prerequisites:** TA-141 and TA-142, or TA-143; or TA-111 and TA-112, or TA-113

OC LCT	<b>TA-153-01 325360 MWF</b> TBA		\$369.00	\$39.00	\$25.00	\$433.00V
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Required: Student Petition.

**TA-195 STUDENT PERFORMANCE SHOWCASE, 1-3 CREDITS (VAR)**

Training in special forms of theatrical presentation through in-class intensive preparation, study, and program development for public presentation, including comedy improvisation, stand-up comedy, and student directed one-act plays. Roles in one-act plays require a successful audition. Other opportunities open to all. Variable Credit: 1-3 credits. May be repeated for up to 6 credits.

OC LCT	<b>TA-195-01 325363 MWF</b> C. WHITTEN		\$369.00	\$39.00	\$35.00	\$443.00V
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Meets: Improv 12-12:50pm, One-Acts 1-1:50pm, Stand-Up 2-2:50pm.

**TA-211 TECHNICAL THEATRE STUDY, 4 CREDITS**

Comprehensive study and practice in presentational graphics, scene design, lighting design, and chromatics. The full creative process of staging a production will be explored through aesthetic research and design projects. Includes hands-on participation in CCC's main stage productions.

**Prerequisites:** TA-111, TA-112, and TA-113

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

OC LCT	<b>TA-211-01 325365 TTH</b> C. WHITTEN		\$492.00	\$52.00	\$35.00	\$579.00
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**TA-253 THEATRE REHEARSAL & PERFORMANCE, 1-3 CREDITS (VAR)**

Intermediate training in theatre production through intensive study and rehearsal of scenes and plays for public performance. Variable Credit: 1-3 credits. May be repeated for up to 6 credits. Required: Student Petition.

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

**Required:** Successful audition/interview  
**Recommended Prerequisites:** TA-153

OC LCT	<b>TA-253-01</b>	<b>325369</b>	<b>MWF</b>		<b>3-5:50 PM</b>	
	TBA	\$369.00	\$39.00	\$25.00	\$433.00V	

Required: Student Petition.

**TA-280 THEATRE/CWE, 2-6 CREDITS**

Cooperative work experience. Provides students with a learning experience related to course of study and career goal. Major emphasis will be given to on-the-job experience and training. Variable Credit: 2-6 credits. Required: Student Petition.

**Corequisites:** CWE-281

ONL LCT	<b>TA-280-01</b>	<b>325372</b>				
	TBA	\$738.00	\$78.00	\$45.00	\$861.00V	

Required: Student Petition.

**TA-295 STUDENT PERFORMANCE SHOWCASE, 1-3 CREDITS (VAR)**

Training in special forms of theatrical presentation through in-class intensive preparation, study, and program development for public presentation, including comedy improvisation, stand-up comedy, and student directed one-act plays. Roles in one-act plays require a successful audition. Other opportunities open to all. Variable Credit: 1-3 credits. May be repeated for up to 6 credits.

OC LCT	<b>TA-295-01</b>	<b>325376</b>	<b>MWF</b>		<b>12-2:50 PM</b>	
	C. WHITTEN	\$369.00	\$39.00	\$35.00	\$443.00V	

Meets: Improv 12-12:50pm, One-Acts 1-1:50pm, Stand-Up 2-2:50pm.

**XATH-0001 PLAYS & REHEARSALS, 0 CREDIT**

Training in theatre production through intensive study and rehearsal of scenes and plays for public performance.

OC	<b>XATH-0001-01</b>	<b>329259</b>	<b>MWF</b>		<b>3-5:50 PM</b>	
	TBA	\$0.00	\$0.00	\$20.00	\$20.00	

**XATH-0002 STAGECRAFT, 0 CREDIT**

Training in special forms of theatrical presentation through in-class intensive preparation, study and program development for public presentation to the community.

OC	<b>XATH-0002-01</b>	<b>329260</b>	<b>MWF</b>		<b>3-5:50 PM</b>	
	TBA	\$0.00	\$0.00	\$20.00	\$20.00	

**Water & Environmental Technology**

**WET-010 WASTEWATER OPERATIONS I, 3 CREDITS**

For professional upgrade only. Does not meet the requirements for the college certificate or the associates of science degree. Introduction to the fundamentals of wastewater operations. Includes collections systems, preliminary and primary treatment, waste characteristics including organic removals, and solids profiles.

OC HYB	<b>WET-010-01</b>	<b>326173</b>	<b>M</b>		<b>6-8:50 PM</b>	
	M. LAFORCE	\$369.00	\$39.00	\$15.00	\$423.00	

For professional upgrade only.

**WET-011 WATERWORKS OPERATIONS I, 3 CREDITS**

**Campus Locations:**  
**HAR:** Harmony Community Campus  
**OC:** Oregon City Campus  
**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

**Distance Education Notification:**  
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**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

**Other Coding Translations:**  
**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

For professional upgrade only. Does not meet the requirements for the certificate or degree. Introduction to municipal drinking water treatment and distribution systems. Basic waterworks hydraulics, drinking water regulations, waterworks math, waterworks microbiology, and introduction to water disinfection.

OC HYB	<b>WET-011-01</b>	<b>326176</b>	<b>T</b>		<b>6-8:50 PM</b>	
	J. NURMI	\$369.00	\$39.00	\$15.00	\$423.00	

For professional upgrade only.

**WET-108 CROSS-CONNECTION CONTROL PROGRAM SPECIALIST, 3 CREDITS**

Specialized training for those who want to be involved in administering cross-connection control programs. Elements of a cross-connection control program, basic hydraulics, state specific regulations, identifying possible cross-connections and site surveys in order to determine proper type of backflow protection, if needed.

OC	<b>WET-108-01</b>	<b>326179</b>	<b>TWTHF</b>		<b>8-3:50 PM</b>	
	J. NURMI	\$369.00	\$39.00	\$0.00	\$408.00	

Meets: 12/5-12/8. This is a four-day workshop. Must attend all four days for full credit and certification.

**WET-109 BACKFLOW ASSEMBLY OPERATION AND TESTING, 4 CREDITS**

Lecture course with lab component that focuses on backflow assembly hydraulics, operations, installation, and testing.

OC	<b>WET-109-01</b>	<b>326181</b>	<b>MTWTHF</b>		<b>8-4:50 PM</b>	
	M. LAFORCE	\$0.00	\$0.00	\$0.00	\$0.00	

J. NURMI  
Meets: 12/4-12/8.

OC	<b>WET-109-02</b>	<b>326184</b>	<b>MTWTHF</b>		<b>8-5:00 PM</b>	
	M. LAFORCE	\$492.00	\$52.00	\$0.00	\$544.00	

Meets: 9/11-9/15.

**WET-110 WASTEWATER OPERATIONS I, 3 CREDITS**

Introduction to the fundamentals of wastewater character and operations. Includes collections systems, preliminary and primary treatment, waste characteristics including organic removals, and solids profiles.

**Corequisites:** MTH-082A

OC HYB	<b>WET-110-01</b>	<b>326187</b>	<b>M</b>		<b>6-8:50 PM</b>	
	M. LAFORCE	\$369.00	\$39.00	\$15.00	\$423.00	

**WET-111 WATERWORKS OPERATIONS I, 3 CREDITS**

Introduction to municipal drinking water treatment and distribution systems. Basic waterworks hydraulics, drinking water regulations, waterworks math, waterworks microbiology, and introduction to water disinfection.

**Corequisites:** MTH-082B

OC HYB	<b>WET-111-01</b>	<b>326189</b>	<b>T</b>		<b>6-8:50 PM</b>	
	J. NURMI	\$369.00	\$39.00	\$15.00	\$423.00	

**WET-112 COMPUTER APPLICATIONS FOR WATER AND WASTEWATER OPERATIONS, 4 CREDITS**

Focuses on direct application of Microsoft Word, PowerPoint, and Excel for producing compliance reports, professional presentations, and data analysis. Emphasis will be put on the use of Excel for statistical analysis of water and wastewater plant data for state and federal compliance. Supervisory control and Data Acquisition (SCADA) will also be covered. Wastewater simulators will be explored and used to design and manipulate unit processes.

**Corequisites:** WET-110 and WET-111

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total	Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee			Instructor		Tuition	Fee	Crs. Fee	
OC HYB	<b>WET-112-01</b> 326191 TBA M				2-4:50 PM		ONL	<b>WET-280-01</b> 326205 M. LAFORCE		\$615.00	\$65.00	\$45.00	\$725.00
	M. LAFORCE		\$492.00	\$52.00	\$15.00	\$559.00		Required: Student Petition. Corequisite: Take the following CWE-281-03.					
<b>WET-125</b>	<b>HIGH PURITY WATER PRODUCTION I, 3 CREDITS</b>						<b>XWET-C001</b>	<b>1-DAY CROSS CONNECTION SPECIALIST UPDATE, 0.60 CEUS</b>					
	Fundamentals of high purity water chemistry, reverse osmosis treatment, ion exchange treatment, electrode ionization treatment, UV, ozonation, degasification and microfiltration as applied to the production of high purity water for the semiconductor, pharmaceutical and electric power generating industries.							Update on code information or any changes in the program.					
	<b>Corequisites:</b> MTH-082E						oc	<b>XWET-C001-31</b> 326323 F TBA		\$0.00	\$0.00	\$0.00	\$0.00
								Meets: 11/3.					
<b>REM</b>	<b>WET-125-01</b> 326193 T G. CARR				9-12:50 PM		<b>XWET-C002</b>	<b>1-DAY TESTER RENEWAL, 0.60 CEUS</b>					
			\$369.00	\$39.00	\$15.00	\$423.00		Update on OARs and hands on testing to recertify student for backflow assembly certification through the State of Oregon.					
<b>WET-180</b>	<b>WATER &amp; ENVIRONMENTAL PROJECTS I, 5 CREDITS</b>						oc	<b>XWET-C002-12</b> 326325 F M. LAFORCE		\$0.00	\$0.00	\$0.00	\$0.00
	Practical work experience in a municipal industrial treatment, distribution, or collection system. Placement in consulting firms, federal and state regulatory agencies, BLM, BPA, and other regulated governmental organizations. Variable Credit: 1-5 credits.							Meets: 12/1.					
	<b>Corequisites:</b> CWE-281						<b>XWET-C003</b>	<b>2-DAY TESTER RETRAIN/RENEWAL, 1.20 CEUS</b>					
<b>ONL</b>	<b>WET-180-01</b> 326194 M. LAFORCE		\$615.00	\$65.00	\$45.00	\$725.00		Review of backflow prevention assemblies used for water/wastewater system cross connection control. Review will include overview of hydraulics and degree of hazards, proper backflow installation procedures, and approved testing/troubleshooting procedures. Students will learn to identify common, actual, and potential cross connection hazards; students will be introduced to the basic requirements for carrying out a cross connection program. Upon successful hands on and written exam completion, students will be issued certificate of completion by OBT/CCC and transcribed for appropriate number of CEUs. Students will be able to apply to Oregon Health Department for recertification by that agency.					
	Required: Student Petition.						oc	<b>XWET-C003-21</b> 326329 THF M. LAFORCE		\$0.00	\$0.00	\$0.00	\$0.00
<b>WET-241</b>	<b>AQUATIC MICROBIOLOGY, 4 CREDITS</b>							Meets: 10/19-10/20.					
	A lab course with topics in applied microbiology. Methods to detect coliform group in water and wastewater. Identification of filamentous bacteria in activated sludge, and identification of indicator protozoa in activated sludge. A bacteriological stream survey project is included.						oc	<b>XWET-C003-22</b> 326331 THF M. LAFORCE		\$0.00	\$0.00	\$0.00	\$0.00
	<b>Prerequisites:</b> BI-204							Meets: 11/16-11/17.					
oc	<b>WET-241-01</b> 326196 TBA MW				9-11:50 AM		<b>XWET-C004</b>	<b>4-DAY CROSS CONNECTION SPECIALIST COURSE, 3.20 CEUS</b>					
	J. NURMI		\$492.00	\$52.00	\$40.00	\$584.00		Designed to provide information to individuals involved in the protection of public water systems from contamination due to cross connections. This course should be of special interest to cross connection control specialists, plumbing inspectors, waterworks managers, and backflow device testers.					
<b>WET-242</b>	<b>HYDRAULICS FOR WATER &amp; WASTEWATER, 3 CREDITS</b>						oc	<b>XWET-C004-41</b> 326333 TWTHF J. NURMI		\$0.00	\$0.00	\$0.00	\$0.00
	Introduction to closed conduit and open channel flow. Includes hydrostatics and dynamics, head-loss, pump characteristics, Bernoulli's and the energy equations, and basic characteristics of water.							Meets: 12/5-12/8. This is a four-day workshop. Must attend all four days for full credit and certification.					
	<b>Prerequisites:</b> WET-122						<b>XWET-C005</b>	<b>5-DAY BACKFLOW TESTER COURSE, 4.00 CEUS</b>					
oc HYB	<b>WET-242-01</b> 326199 MW M. LAFORCE				12:30 -1:50 PM								
			\$369.00	\$39.00	\$15.00	\$423.00							
<b>WET-245</b>	<b>INSTRUMENTATION &amp; CONTROL, 4 CREDITS</b>												
	A lab course introducing methods used to monitor and control treatment processes in wastewater, water and high purity water facilities. Advanced water analysis to include typical monitoring of high purity water treatment. Fundamentals of control loops, control systems and data management.												
oc HYB	<b>WET-245-01</b> 326202 W G. CARR				4-5:50 PM								
			\$492.00	\$52.00	\$40.00	\$584.00							
<b>WET-280</b>	<b>WATER &amp; ENVIRONMENTAL PROJECTS II, 5 CREDITS</b>												
	Practical work experience in a municipal industrial treatment, distribution, or collection system. Placement in consulting firms, federal and state regulatory agencies, BLM, BPA, and other regulated governmental organizations. Practical experience in a municipal, public or private wastewater treatment facility of specific activated sludge design. Process loading criteria, data acquisition & trend charting, and relevant sanitary process strategies will be addressed.												
	<b>Corequisites:</b> CWE-281												

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Instructor	Tuition	Fee	Crs. Fee			
oc	<b>XWET-C005- 326335 MTWTHF</b> 51 M. LAFORCE Meets: 12/4-12/8.	\$0.00	\$0.00	\$0.00	<b>8-4:50 PM</b>	\$0.00
oc	<b>XWET-C005- 326336 MTWTHF</b> 52 M. LAFORCE Meets: 9/11-9/15.	\$0.00	\$0.00	\$0.00	<b>8-5:00 PM</b>	\$0.00

**Welding Technology**

*Must have ANSI approved eye protection first day and comply with College safety policy.*

**WLD-100 WELDER'S PRINT READING I, 3 CREDITS**

Provides instruction in reading and interpretation of prints and symbols common in the welding industry. Participants will learn the interpretation and application of basic lines, dimensions, structural shapes, and specifications. Welding symbols and their application to different types of joint configurations will be covered, as well as how to develop basic shop drawings and prints.

oc	<b>WLD-100-01 326207 W</b> D. PODKOWA	\$369.00	\$39.00	\$213.00	<b>2-5:00 PM</b>	\$621.00
oc	<b>WLD-100-02 329392 T</b> M. TIZO	\$369.00	\$39.00	\$213.00	<b>6-8:50 PM</b>	\$621.00

**WLD-102 INTRODUCTION TO WELDING, 2 CREDITS**

Designed for the beginner and experimental welder. Includes: oxy-acetylene, stick, wire feed and TIG welding, oxy-acetylene and plasma arc cutting.

oc	<b>WLD-102-01 326209 F</b> D. PODKOWA	\$246.00	\$26.00	\$142.00	<b>6-9:50 PM</b>	\$414.00
oc	<b>WLD-102-02 326210 S</b> J. VOSKUIL	\$246.00	\$26.00	\$142.00	<b>9-12:50 PM</b>	\$414.00
oc	<b>WLD-102-03 326211 S</b> M. TIZO	\$246.00	\$26.00	\$142.00	<b>2-5:50 PM</b>	\$414.00

**WLD-103 BLACKSMITHING & TRADITIONAL IRON WORKING, 2 CREDITS**

This course introduces the student to basic blacksmithing techniques and processes, as well as terminology, steel types, heat treating and tool making. Multiple projects allow the student to practice the varied methods of manual metal forming. No welding experience required.

oc	<b>WLD-103-01 326212 F</b> B. ROMANS	\$246.00	\$26.00	\$142.00	<b>6-9:50 PM</b>	\$414.00
oc	<b>WLD-103-02 326216 SU</b> B. ROMANS	\$246.00	\$26.00	\$142.00	<b>10-1:50 PM</b>	\$414.00

**WLD-104 INTRODUCTION TO CNC PLASMA CUTTING, 2 CREDITS**

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
Instructor	Tuition	Fee	Crs. Fee			
oc	<b>WLD-104-01 326218 W</b> A. TOWN	\$246.00	\$26.00	\$142.00	<b>1-4:50 PM</b>	\$414.00

**WLD-110 WELDER CERTIFICATION, 4 CREDITS**

This course provides theory and practical instruction to become a certified welder. Students will choose a welding process (flux core arc welding, shielded metal arc welding, or gas tungsten arc welding) for certification. Material needed for practice welding will be provided. Students will take a welding certification exam at the end of the class. May be repeated for up to 12 credits.

oc	<b>WLD-110-01 326219 MW</b> J. VOSKUIL	\$492.00	\$52.00	\$424.00	<b>8-11:50 AM</b>	\$968.00
oc	<b>WLD-110-02 326220 MW</b> J. PHELPS	\$492.00	\$52.00	\$424.00	<b>1-4:50 PM</b>	\$968.00
oc	<b>WLD-110-03 326222 MW</b> K. KAUFFMAN	\$492.00	\$52.00	\$424.00	<b>6-9:50 PM</b>	\$968.00
oc	<b>WLD-110-04 326225 TTH</b> J. VOSKUIL	\$492.00	\$52.00	\$424.00	<b>8-11:50 AM</b>	\$968.00
oc	<b>WLD-110-05 326227 TTH</b> D. BATES	\$492.00	\$52.00	\$424.00	<b>6-9:50 PM</b>	\$968.00
oc	<b>WLD-110-06 326228 TTH</b> D. BATES	\$492.00	\$52.00	\$424.00	<b>1-4:50 PM</b>	\$968.00

**WLD-111 SHIELDED METAL ARC WELDING (STICK), 8 CREDITS**

Provides students with the opportunity to acquire knowledge and skills to set up and operate equipment to perform fillet and groove welds in all positions with the SMAW process. Oxy-fuel cutting, air carbon arc cutting and gouging will be covered. Welding codes, standards, and specifications will be reviewed.

oc	<b>WLD-111-01 326230 MTWTH</b> J. PHELPS	\$984.00	\$104.00	\$568.00	<b>6-9:50 PM</b>	\$1,656.00
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**WLD-111A SHIELDED METAL ARC WELDING (STICK), 4 CREDITS**

The first half of WLD-111 which provides the opportunity to acquire knowledge and skills to set up and operate equipment to perform fillet welds in flat and horizontal positions with the SMAW process. Oxy-fuel cutting, air carbon arc cutting and gouging will be covered.

oc	<b>WLD-111A-01 326232 MW</b> J. PHELPS	\$492.00	\$52.00	\$284.00	<b>6-9:50 PM</b>	\$828.00
oc	<b>WLD-111A-02 326234 MTWTH</b> D. PODKOWA	\$492.00	\$52.00	\$284.00	<b>7:30 -9:30 AM</b>	\$828.00
oc	<b>WLD-111A-03 326235 MTWTH</b> J. VOSKUIL	\$492.00	\$52.00	\$284.00	<b>3:30 -5:30 PM</b>	\$828.00

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	Instructor		Tuition	Fee	Crs. Fee	
oc	<b>WLD-111A-05 326239 MTWTH</b> J. VOSKUIL		\$492.00	\$52.00	1:15 -3:15 PM	\$284.00 \$828.00

**WLD-111B SHIELDED METAL ARC WELDING (STICK), 4 CREDITS**

The second half of WLD-111 which provides the opportunity to acquire additional knowledge and skills needed to perform more advanced fillet and groove welds in vertical and overhead positions with the SMAW process. Welding codes, standards, and specifications will be reviewed.

**Prerequisites:** WLD-111A

oc	<b>WLD-111B-01 326242 TTH</b> J. PHELPS		\$492.00	\$52.00	6-9:50 PM	\$284.00 \$828.00
oc	<b>WLD-111B-02 326244 MTWTH</b> D. PODKOWA		\$492.00	\$52.00	7:30 -9:30 AM	\$284.00 \$828.00
oc	<b>WLD-111B-03 326246 MTWTH</b> J. VOSKUIL		\$492.00	\$52.00	3:30 -5:30 PM	\$284.00 \$828.00
oc	<b>WLD-111B-05 326249 MTWTH</b> J. VOSKUIL		\$492.00	\$52.00	1:15 -3:15 PM	\$284.00 \$828.00

**WLD-113 GAS METAL ARC WELDING/FLUX CORE ARC WELDING (WIREFEED), 8 CREDITS**

Provides students with the opportunity to acquire knowledge and skills to set up and operate equipment to perform fillet and groove welds in all positions with the Gas Metal Arc and Flux Core Arc Welding processes. Oxy-fuel cutting, and air carbon arc cutting and gouging will be covered. Welding codes, standards and specifications will be reviewed.

oc	<b>WLD-113-01 326254 MTWTH</b> K. KAUFFMAN		\$984.00	\$104.00	8-11:50 AM	\$568.00 \$1,656.00
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**WLD-113A GAS METAL ARC WELDING/FLUX CORE ARC WELDING (WIREFEED), 4 CREDITS**

The first half of WLD-113 which provides the opportunity to acquire knowledge and skills to set up and operate equipment to perform fillet welds in flat and horizontal positions with the Gas Metal Arc and Flux Core Arc Welding processes. Oxy-fuel cutting, air carbon arc cutting and gouging will be covered.

oc	<b>WLD-113A-01 326260 MW</b> K. KAUFFMAN		\$492.00	\$52.00	8-11:50 AM	\$284.00 \$828.00
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**WLD-113B GAS METAL ARC WELDING/FLUX CORE ARC WELDING (WIREFEED), 4 CREDITS**

The second half of WLD-113 which provides the opportunity to acquire additional knowledge and skills needed to perform more advanced fillet and groove welds in vertical and overhead positions with the Gas Metal Arc and Flux Core Arc Welding processes. Welding codes, standards, and specifications will be reviewed.

**Prerequisites:** WLD-113A

oc	<b>WLD-113B-01 326261 TTH</b> K. KAUFFMAN		\$492.00	\$52.00	8-11:50 AM	\$284.00 \$828.00
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**WLD-150 WELDING PROCESSES, 4 CREDITS**

Covers oxy-acetylene welding, brazing, cutting, stick welding, wire feed, oxy-fuel and plasma cutting. Includes: safety, electrical fundamentals, routine maintenance, minor repairs, and terms and definitions.

oc	<b>WLD-150-01 326263 MW</b> K. KAUFFMAN		\$492.00	\$52.00	6-9:50 PM	\$284.00 \$828.00
oc	<b>WLD-150-02 329393 MW</b> J. VOSKUIL		\$492.00	\$52.00	8-11:50 AM	\$284.00 \$828.00

**WLD-203 BLACKSMITHING & TRADITIONAL IRON WORKING II, 2 CREDITS**

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	
	This course builds on the WLD-103 course and expands on the process of forged metal work. Instruction includes power hammer use, tooling design, traditional joinery, and intermediate projects. Welding experience helpful, but not required.					
oc	<b>WLD-203-01 326265 SU</b> B. ROMANS		\$246.00	\$26.00	2-5:50 PM	\$142.00 \$414.00

**WLD-210 PIPE WELDING, 4 CREDITS**

Provides beginning theory and practical instruction in the Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), Flux Core Arc Welding (FCAW), or Gas Tungsten Arc Welding (GTAW) processes on steel plate and pipe. The specific projects include: stringer beads, fillet and groove welds on plate with root and cover proficiency, pipe cutting using the oxy-fuel process, pipe beveling and groove welds on pipes in all positions. The student may choose which process or processes will be used to complete the lab assignments.

**Prerequisites:** WLD-111, or WLD-111A and WLD-111B. WLD-113, or WLD-113A and WLD-113B. WLD-115, or WLD-115A and WLD-115B. WLD-150 or prior experience in SMAW, GMAW, FCAW, or GTAW

oc	<b>WLD-210-01 326269 MW</b> J. PHELPS		\$492.00	\$52.00	1-4:50 PM	\$284.00 \$828.00
	Required: Student Petition. Contact: johnp@clackamas.edu or 503-594-6378.					

**WLD-211 ADVANCED SHIELDED METAL ARC WELDING, 4 CREDITS**

This course provides the opportunity for students to acquire the knowledge and skills needed to perform quality fillet and groove welds in all positions using the Shielded Metal Arc Welding (SMAW) process. Advanced welding theory and procedures will also be included.

**Prerequisites:** WLD-111; or WLD-111A and WLD-111B

oc	<b>WLD-211-01 326270 TTH</b> D. BATES		\$492.00	\$52.00	6-9:50 PM	\$284.00 \$828.00
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**WLD-212 SHIELDED METAL ARC WELDING PIPE WELDING, 4 CREDITS**

This class is designed to teach students the fundamentals of open root pipe welding. Theory and practical instruction in open root V groove pipe welding using E6010 and E7018 electrodes will be provided. Oxy-fuel pipe cutting is also included. Required: Student Petition.

**Prerequisites:** WLD-211

oc	<b>WLD-212-01 326271 MW</b> J. PHELPS		\$492.00	\$52.00	1-4:50 PM	\$284.00 \$828.00
	Required: Student Petition. Contact: johnp@clackamas.edu or 503-594-6378.					

**WLD-213 ADVANCED GAS METAL ARC WELDING/FLUX CORE ARC WELDING, 4 CREDITS**

This course provides the opportunity for students to acquire the knowledge and skills needed to perform quality fillet and groove welds in all positions using the Gas Metal Arc Welding (GMAW) and Flux Core Arc Welding (FCAW) processes. Advanced welding theory and procedures will also be included.

**Prerequisites:** WLD-113; or WLD-113A and WLD-113B

oc	<b>WLD-213-01 326275 TTH</b> J. VOSKUIL		\$492.00	\$52.00	8-11:50 AM	\$284.00 \$828.00
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**WLD-250 WELDING FABRICATION I BEGINNING PROJECT, 4 CREDITS**

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This course consists of lecture and lab and provides instruction in fabrication techniques including blueprint reading, layout, sketching, bills of material, job cost calculations, measuring, fitting, cutting and welding. Students will be assigned beginning fabrication projects. The student will be responsible for all aspects of managing the project to successful completion.

**Prerequisites:** WLD-111, WLD-113, or WLD-115

oc	<b>WLD-250-01</b>	<b>326277 TTH</b>			<b>1-4:50 PM</b>	
	D. BATES	\$492.00	\$52.00	\$284.00		\$828.00

**WLD-251 WELDING FABRICATION II INTERMEDIATE PROJECT, 4 CREDITS**

This course consists of lecture and lab. Students will use the skills learned in Fabrication I, such as blueprint reading, layout, sketching, bills of materials, job cost calculations, measuring, fitting, cutting and welding, and apply them to more challenging projects. Students will be assigned intermediate fabrication projects. The student will be responsible for all aspects of managing the project to successful completion.

**Prerequisites:** WLD-250

oc	<b>WLD-251-01</b>	<b>326280 TTH</b>			<b>1-4:50 PM</b>	
	D. BATES	\$492.00	\$52.00	\$284.00		\$828.00

**WLD-252 WELDING FABRICATION III ADVANCED PROJECT, 4 CREDITS**

This course consists of lecture and lab. Students will use the skills learned in Fabrication I and II, such as blueprint reading, layout, sketching, bills of materials, job cost calculations, measuring, fitting, cutting and welding, and apply them to advanced projects. Students will be assigned advanced fabrication projects. The student will be responsible for all aspects of managing the project to successful completion.

**Prerequisites:** WLD-251

oc	<b>WLD-252-01</b>	<b>326283 TTH</b>			<b>1-4:50 PM</b>	
	D. BATES	\$492.00	\$52.00	\$284.00		\$828.00

**WLD-261 WELDING SPECIAL PROJECTS, 1-2 CREDITS (VAR)**

Allows students to improve their welding skills while working on instructor-approved projects. Variable Credit: 1-2 credits. May be repeated for up to 12 credits.

oc	<b>WLD-261-01</b>	<b>326287 M</b>			<b>8-11:50 AM</b>	
	J. VOSKUIL	\$246.00	\$26.00	\$142.00		\$414.00V
	Required: Student Petition. Contact: justinv@clackamas.edu or 503-594-6399.					

oc	<b>WLD-261-02</b>	<b>326289 M</b>			<b>1-4:50 PM</b>	
	J. PHELPS	\$246.00	\$26.00	\$142.00		\$414.00V
	Required: Student Petition. Contact: johnp@clackamas.edu or 503-594-6378.					

oc	<b>WLD-261-03</b>	<b>326290 M</b>			<b>6-9:50 PM</b>	
	J. PHELPS	\$246.00	\$26.00	\$142.00		\$414.00V
	Required: Student Petition. Contact: johnp@clackamas.edu or 503-594-6378.					

oc	<b>WLD-261-04</b>	<b>326291 T</b>			<b>6-9:50 PM</b>	
	J. PHELPS	\$246.00	\$26.00	\$142.00		\$414.00V
	Required: Student Petition. Contact: johnp@clackamas.edu or 503-594-6378.					

oc	<b>WLD-261-05</b>	<b>326292 W</b>			<b>8-11:50 AM</b>	
	J. VOSKUIL	\$246.00	\$26.00	\$142.00		\$414.00V
	Required: Student Petition. Contact: justinv@clackamas.edu or 503-594-6399.					

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	

oc	<b>WLD-261-06</b>	<b>326294 W</b>			<b>1-4:50 PM</b>	
	J. PHELPS	\$246.00	\$26.00	\$142.00		\$414.00V
	Required: Student Petition. Contact: johnp@clackamas.edu or 503-594-6378.					

oc	<b>WLD-261-07</b>	<b>326296 W</b>			<b>6-9:50 PM</b>	
	J. PHELPS	\$246.00	\$26.00	\$142.00		\$414.00V
	Required: Student Petition. Contact: johnp@clackamas.edu or 503-594-6378.					

oc	<b>WLD-261-08</b>	<b>326297 TH</b>			<b>6-9:50 PM</b>	
	J. PHELPS	\$246.00	\$26.00	\$142.00		\$414.00V
	Required: Student Petition. Contact: johnp@clackamas.edu or 503-594-6378.					

oc	<b>WLD-261-09</b>	<b>326298 F</b>			<b>6-9:50 PM</b>	
	B. ROMANS	\$246.00	\$26.00	\$142.00		\$414.00V
	Required: Student Petition. Contact: bertr@clackamas.edu or 503-594-3966.					

oc	<b>WLD-261-10</b>	<b>326299 S</b>			<b>9-12:50 PM</b>	
	J. VOSKUIL	\$246.00	\$26.00	\$142.00		\$414.00V
	Required: Student Petition. Contact: justinv@clackamas.edu or 503-594-6399.					

oc	<b>WLD-261-11</b>	<b>326300 S</b>			<b>2-5:50 PM</b>	
	M. TIZO	\$246.00	\$26.00	\$142.00		\$414.00V
	Required: Student Petition. Contact: marlana.tizo@clackamas.edu.					

oc	<b>WLD-261-12</b>	<b>326302 SU</b>			<b>10-1:50 PM</b>	
	B. ROMANS	\$246.00	\$26.00	\$142.00		\$414.00V
	Required: Student Petition. Contact: bertr@clackamas.edu or 503-594-3966.					

oc	<b>WLD-261-13</b>	<b>326303 SU</b>			<b>2-5:50 PM</b>	
	B. ROMANS	\$246.00	\$26.00	\$142.00		\$414.00V
	Required: Student Petition. Contact: bertr@clackamas.edu or 503-594-3966.					

oc	<b>WLD-261-14</b>	<b>326304 T</b>			<b>1-4:50 PM</b>	
	D. BATES	\$246.00	\$26.00	\$142.00		\$414.00V
	Required: Student Petition. Contact: dustinb@clackamas.edu or 503-594-3973.					

oc	<b>WLD-261-15</b>	<b>326305 TH</b>			<b>1-4:50 PM</b>	
	D. BATES	\$246.00	\$26.00	\$142.00		\$414.00V
	Required: Student Petition. Contact: dustinb@clackamas.edu or 503-594-3973.					

**WLD-280 WELDING TECHNOLOGY/CWE, 1-6 CREDITS (VAR)**

Cooperative work experience in the welding trades. Worksite to be determined prior to registering for this class. Skills learned from welding classes will be applied while working at a job site. Goals for this class will be established with the company supervisor, instructor, and student. An online seminar is also required to complete this course. Variable Credit: 1-6 credits. May be repeated for up to 9 credits. Required: Student Petition.

**Corequisites:** CWE-281

oc	<b>WLD-280-01</b>	<b>326306</b>				
	J. VOSKUIL	\$738.00	\$78.00	\$60.00		\$876.00V
	Required: Student Petition. Contact: justinv@clackamas.edu or 503-594-6399. Corequisite: Take 1 of the following CWE-281-06.					

**XWLD-0001 AMERICAN WELDING SOCIETY (WLD) CERTIFICATION 1 PLATE TEST, 0 CREDIT**

Welder certification in accordance with AWS D1.1 for one position for students enrolled in any CCC welding course.

**Campus Locations:**  
**HAR:** Harmony Community Campus  
**OC:** Oregon City Campus  
**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

**Distance Education Notification:**  
**ONL:** Online Only  
**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

**Other Coding Translations:**  
**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total
	Instructor	Tuition	Fee	Crs. Fee		
oc	<b>XWLD-0001- 326337 TBA</b> 01 TBA Required: Student Petition. Contact: dustinb@clackamas.edu or 503-594-3973.	\$0.00	\$0.00	\$140.00		\$140.00
<b>XWLD-0002</b>	<b>AMERICAN WELDING SOCIETY CERTIFICATION 2 PLATE OR 1 PIPE TEST, 0 CREDIT</b> Welder certification in any two positions, in accordance with AWS D1.1 for students enrolled in any CCC welding course.					
oc	<b>XWLD-0002- 326339 TBA</b> 01 TBA Required: Student Petition. Contact: dustinb@clackamas.edu or 503-594-3973.	\$0.00	\$0.00	\$280.00		\$280.00
<b>XWLD-0003</b>	<b>AMERICAN WELDING SOCIETY CERTIFICATION RETAKE TEST, 0 CREDIT</b> Welder certification on retest in any position, in accordance with AWS D1.1 for students enrolled in any CCC welding course. Required: Student Petition.					
oc	<b>XWLD-0003- 326340 TBA</b> 01 TBA Required: Student Petition. Contact: dustinb@clackamas.edu or 503-594-3973.	\$0.00	\$0.00	\$25.00		\$25.00

Women's Studies

<b>WS-101</b>	<b>INTRODUCTION TO WOMEN'S STUDIES, 4 CREDITS</b> Examines the history of the representation of women, the history of US feminism and the development of Women's Studies as an academic discipline. Critically explores social issues relevant to women's lives, including gender-expression, marginalization, reproduction, sexuality, economic status and the experience of violence. <b>Recommended Prerequisites:</b> WRD-098 or placement in WR-121Z					
oc HYB LCT	<b>WS-101-01 326432 TH</b> K. SEVERSON Online textbook provided first day.	\$492.00	\$52.00	\$0.00		\$544.00
ONL LCT	<b>WS-101-02 326433</b> T. BOYLE- GALESTIANTZ No textbook required.	\$492.00	\$52.00	\$0.00		\$544.00

World Languages

<b>ASL-101</b>	<b>FIRST-YEAR AMERICAN SIGN LANGUAGE I, 4 CREDITS</b> First term of a three-term introductory course. Everyday communication is the centerpiece of each lesson. Topics revolve around sharing information about ourselves and our environment. Grammar is introduced in context, with an emphasis on developing question and answering skills. Strategies are presented to help the student maintain a conversation. <b>Recommended Prerequisites:</b> WRD-098 or placement in WR-121Z					
oc	<b>ASL-101-01 325589 MW</b> A. ELLIS One-time textbook purchase for ASL-101 & ASL-102.	\$492.00	\$52.00	\$10.00		\$554.00
oc	<b>ASL-101-02 325591 MW</b> A. ELLIS One-time textbook purchase for ASL-101 & ASL-102.	\$492.00	\$52.00	\$10.00		\$554.00

**Campus Locations:**  
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**WILS:** Wilsonville Training Center  
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**Distance Education Notification:**  
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**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

**Other Coding Translations:**  
**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Time	Total
	Instructor	Tuition	Fee	Crs. Fee		
ONL	<b>ASL-101-03 325593</b> A. ELLIS One-time textbook purchase for ASL-101 & ASL-102.	\$492.00	\$52.00	\$10.00		\$554.00
<b>ASL-102</b>	<b>FIRST-YEAR AMERICAN SIGN LANGUAGE II, 4 CREDITS</b> Second term of a three-term introductory course. Emphasis will be on increasing communicative abilities. Course will focus on language functions such as making requests, describing others, and/or telling a short story. Grammar and vocabulary will also be emphasized throughout the course. <b>Prerequisites:</b> ASL-101 with a C or better					
ONL	<b>ASL-102-01 325594</b> A. ELLIS One-time textbook purchase for ASL-101 & ASL-102.	\$492.00	\$52.00	\$10.00		\$554.00
<b>ASL-201</b>	<b>SECOND-YEAR AMERICAN SIGN LANGUAGE I, 4 CREDITS</b> Review and expansion of American Sign Language vocabulary and structure in order to perfect expressive skill. Emphasizes active communication in sign language. <b>Prerequisites:</b> ASL-103 with a C or better					
REM	<b>ASL-201-01 325596 TTH</b> A. ELLIS One-time textbook purchase for ASL-103 & ASL-201.	\$492.00	\$52.00	\$10.00	10-11:50 AM	\$554.00
<b>FR-101</b>	<b>FIRST-YEAR FRENCH I, 4 CREDITS</b> First term of a three-term foundational, multimedia course in beginning French designed to give students basic communicative proficiency in the target language. Students will practice all four skills: listening, speaking, reading, and writing. Special attention will be paid to pronunciation, essential grammar structures, and attendant cultural elements. Student learning is assessed through a variety of guided exercises and assignments, interactive activities, homework, tests and quizzes, and other class projects and participation.					
OC LCT	<b>FR-101-01 325808 TTH</b> E. HERNANDEZ Online textbook provided first day. Our French classes are very flexible. Please contact ernesto.hernandez@clackamas.edu if you would like to take French but might have difficulty attending class in person.	\$492.00	\$52.00	\$10.00	10-11:50 AM	\$554.00
<b>FR-201</b>	<b>SECOND-YEAR FRENCH I, 4 CREDITS</b> The second year of academic French expands on first-year French in the review of essential grammar structures, the use of more advanced grammar, and cross-cultural discussion and analysis. Emphasis is on communication skills, stressing both oral proficiency and written expression. <b>Prerequisites:</b> FR-103					
OC LCT	<b>FR-201-01 325813 TTH</b> E. HERNANDEZ Online textbook provided first day. Our French classes are very flexible. Please contact ernesto.hernandez@clackamas.edu if you would like to take French but might have difficulty attending class in person.	\$492.00	\$52.00	\$10.00	1-2:50 PM	\$554.00
<b>FR-211</b>	<b>INTERMEDIATE FRENCH CONVERSATION, 3 CREDITS</b>					

Course No	Course Title, Credits					
Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time			
Instructor	Tuition	Fee	Crs. Fee	Total		

First term of a three-term series in intermediate development of speaking and listening proficiency through creative activities such as discussions of excerpts from contemporary French-language media, presentations, games, role-plays, debates, pair and group work. This course is ideally suited as a language elective or for personal enrichment. Materials, topics and level of difficulty will parallel work in FR-201.

**Prerequisites:** FR-103 with a C or better

OC LCT	<b>FR-211-01</b>	<b>325814</b>	<b>TTH</b>	<b>1-2:20 PM</b>		
	E. HERNANDEZ	\$369.00	\$39.00	\$10.00	\$418.00	

Online textbook provided first day. Some beginning knowledge of French recommended, but all students are welcome. Our French classes are very flexible. Please contact [ernesto.hernandez@clackamas.edu](mailto:ernesto.hernandez@clackamas.edu) if you would like to take French but might have difficulty attending class in person.

**GER-101 FIRST-YEAR GERMAN I, 4 CREDITS**

Introduces the sound system and basic structural patterns of German. Develops the skills of listening comprehension, speaking, reading, and writing. Teaches recognition of cultural similarities and differences. First of a three-term 1st year sequence.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

REM LCT	<b>GER-101-01</b>	<b>325983</b>	<b>W</b>	<b>3-4:50 PM</b>		
	T. NIKOLOPOULOS	\$492.00	\$52.00	\$10.00	\$554.00	

One-time textbook purchase for GER-101 through GER-103.

**SPN-101 FIRST-YEAR SPANISH I, 4 CREDITS**

First of a three-term foundational, multimedia course for beginners. Initial emphasis is on speaking and listening comprehension, with secondary emphasis on reading and writing. Various cultural themes are presented.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

oc	<b>SPN-101-01</b>	<b>326341</b>	<b>TTH</b>	<b>10-11:50 AM</b>		
	V. SHORT	\$492.00	\$52.00	\$10.00	\$554.00	

One time textbook purchase used for SPN-101 through SPN-203.

oc	<b>SPN-101-02</b>	<b>326344</b>	<b>MW</b>	<b>10-11:50 AM</b>		
	E. HERNANDEZ	\$492.00	\$52.00	\$10.00	\$554.00	

One-time textbook purchase for SPN101 through SPN203. This Spanish section is very flexible. Please contact [ernesto.hernandez@clackamas.edu](mailto:ernesto.hernandez@clackamas.edu) if you would like to take Spanish but might have difficulty attending class in person.

ONL	<b>SPN-101-03</b>	<b>326345</b>				
	V. SHORT	\$492.00	\$52.00	\$10.00	\$554.00	

One time textbook purchase used for SPN-101 through SPN-203.

**SPN-201 SECOND-YEAR SPANISH I, 4 CREDITS**

First of a three-term intermediate, multimedia course. Focus is on speaking, listening comprehension, reading and writing. Explores cultural differences among Spanish-speaking countries and between the latter and European-American culture.

**Prerequisites:** SPN-103 or Student Petition

ONL	<b>SPN-201-01</b>	<b>326349</b>				
	V. SHORT	\$492.00	\$52.00	\$10.00	\$554.00	

One time textbook purchase used for SPN-101 through SPN-203.

**Writing**

**WR-101 WORKPLACE WRITING, 4 CREDITS**

**Campus Locations:**  
**HAR:** Harmony Community Campus  
**OC:** Oregon City Campus  
**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

**Distance Education Notification:**  
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**Other Coding Translations:**  
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**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

Course No	Course Title, Credits					
Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time			
Instructor	Tuition	Fee	Crs. Fee	Total		

Students in this course learn and practice basic modes of technical writing, including summaries, process analysis, instructions, and reports.

**Prerequisites:** WRD-098 or placement in WR-101 or WR-121Z

OC LCT	<b>WR-101-01</b>	<b>326352</b>	<b>TTH</b>	<b>1-2:50 PM</b>		
	C. ZIMMERLY-BECK	\$492.00	\$52.00	\$19.00	\$563.00	
ONL LCT	<b>WR-101-02</b>	<b>326354</b>				
	P. CRUMRINE	\$492.00	\$52.00	\$19.00	\$563.00	

**WR-121Z COMPOSITION I, 4 CREDITS**

WR-121Z engages students in the study and practice of critical thinking, reading, and writing. The course focuses on analyzing and composing across varied rhetorical situations and in multiple genres. Students will apply key rhetorical concepts flexibly and collaboratively throughout their writing and inquiry processes.

**Prerequisites:** WRD-098 or placement in WR-121Z

OC LCT	<b>WR-121Z-01</b>	<b>326355</b>	<b>MW</b>	<b>10-11:50 AM</b>		
	S. WARREN	\$492.00	\$52.00	\$19.00	\$563.00	
OC LCT	<b>WR-121Z-02</b>	<b>326356</b>	<b>MW</b>	<b>1-2:50 PM</b>		
	S. WARREN	\$492.00	\$52.00	\$19.00	\$563.00	
OC LCT	<b>WR-121Z-03</b>	<b>326357</b>	<b>MW</b>	<b>3-4:50 PM</b>		
	J. BRYANT-TRERISE	\$492.00	\$52.00	\$19.00	\$563.00	
OC LCT	<b>WR-121Z-04</b>	<b>326358</b>	<b>TTH</b>	<b>10-11:50 AM</b>		
	J. BRYANT-TRERISE	\$492.00	\$52.00	\$19.00	\$563.00	
OC LCT	<b>WR-121Z-05</b>	<b>326359</b>	<b>TTH</b>	<b>10-11:50 AM</b>		
	A. WICKERT	\$492.00	\$52.00	\$19.00	\$563.00	
OC LCT	<b>WR-121Z-06</b>	<b>326360</b>	<b>TTH</b>	<b>1-2:50 PM</b>		
	R. MURPHY	\$492.00	\$52.00	\$19.00	\$563.00	
OC LCT	<b>WR-121Z-07</b>	<b>326361</b>	<b>TTH</b>	<b>3-4:50 PM</b>		
	T. WALKER	\$492.00	\$52.00	\$19.00	\$563.00	
OC HYB LCT	<b>WR-121Z-08</b>	<b>326362</b>	<b>M</b>	<b>10-11:50 AM</b>		
	C. BURNELL	\$492.00	\$52.00	\$19.00	\$563.00	
OC HYB LCT	<b>WR-121Z-09</b>	<b>326363</b>	<b>M</b>	<b>1-2:50 PM</b>		
	C. ZIMMERLY-BECK	\$492.00	\$52.00	\$19.00	\$563.00	
OC HYB LCT	<b>WR-121Z-10</b>	<b>326364</b>	<b>M</b>	<b>3-4:50 PM</b>		
	M. SCHUMACHER	\$492.00	\$52.00	\$19.00	\$563.00	
OC HYB	<b>WR-121Z-11</b>	<b>326365</b>	<b>T</b>	<b>8-9:50 AM</b>		
	L. ORMANDY	\$492.00	\$52.00	\$19.00	\$563.00	
OC HYB	<b>WR-121Z-12</b>	<b>326366</b>	<b>T</b>	<b>10-11:50 AM</b>		
	J. DAVIS	\$492.00	\$52.00	\$19.00	\$563.00	
OC HYB LCT	<b>WR-121Z-13</b>	<b>326367</b>	<b>T</b>	<b>1-2:50 PM</b>		
	C. BURNELL	\$492.00	\$52.00	\$19.00	\$563.00	
OC HYB LCT	<b>WR-121Z-14</b>	<b>326368</b>	<b>W</b>	<b>1-2:50 PM</b>		
	A. WICKERT	\$492.00	\$52.00	\$19.00	\$563.00	
WILS HYB LCT	<b>WR-121Z-15</b>	<b>326369</b>	<b>M</b>	<b>6-7:50 PM</b>		
	M. SCHUMACHER	\$492.00	\$52.00	\$19.00	\$563.00	
ONL LCT	<b>WR-121Z-17</b>	<b>326371</b>				
	R. DAVIS	\$492.00	\$52.00	\$19.00	\$563.00	
ONL LCT	<b>WR-121Z-18</b>	<b>326372</b>				
	R. DAVIS	\$492.00	\$52.00	\$19.00	\$563.00	
ONL LCT	<b>WR-121Z-19</b>	<b>326373</b>				
	M. WARREN	\$492.00	\$52.00	\$19.00	\$563.00	
ONL LCT	<b>WR-121Z-20</b>	<b>326374</b>				
	M. WARREN	\$492.00	\$52.00	\$19.00	\$563.00	
ONL LCT	<b>WR-121Z-21</b>	<b>326375</b>				
	L. ORMANDY	\$492.00	\$52.00	\$19.00	\$563.00	
ONL LCT	<b>WR-121Z-22</b>	<b>326376</b>				
	T. DODGE	\$492.00	\$52.00	\$19.00	\$563.00	
ONL LCT	<b>WR-121Z-23</b>	<b>326377</b>				
	T. DODGE	\$492.00	\$52.00	\$19.00	\$563.00	
ONL LCT	<b>WR-121Z-24</b>	<b>326378</b>				
	T. DODGE	\$492.00	\$52.00	\$19.00	\$563.00	

Course No	Course Title, Credits	Section No	Instructor	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Tuition	Fee	Time	Crs. Fee	Total
ONL	<b>WR-121Z-25 329386</b>		P. CRUMRINE			\$492.00	\$52.00	\$19.00		\$563.00
HAR LCT	<b>WR-121Z-30 326381 TTH</b>		S. PESZNECKER			\$492.00	\$52.00	\$19.00		\$563.00
HAR HYB LCT	<b>WR-121Z-31 326382 W</b>		S. PESZNECKER			\$492.00	\$52.00	\$19.00		\$563.00
	<b>WR-122Z COMPOSITION II, 4 CREDITS</b>									
	WR-122Z builds on concepts and processes emphasized in WR-121Z, engaging with inquiry, research, and argumentation in support of students' development as writers. The course focuses on composing and revising in research-based genres through the intentional use of rhetorical strategies. Students will find, evaluate, and interpret complex material, including lived experience; use this to frame and pursue their own research questions; and integrate material purposefully into their own compositions.									
	<b>Prerequisites:</b> WR-121Z with a C or better									
OC LCT	<b>WR-122Z-01 326383 MW</b>		C. ZIMMERLY-BECK			\$492.00	\$52.00	\$19.00		\$563.00
OC LCT	<b>WR-122Z-02 326384 TTH</b>		J. DAVIS			\$492.00	\$52.00	\$19.00		\$563.00
OC LCT	<b>WR-122Z-03 326385 TTH</b>		J. BRYANT-TRERISE			\$492.00	\$52.00	\$19.00		\$563.00
OC HYB	<b>WR-122Z-04 326386 M</b>		S. NIZIOLEK			\$492.00	\$52.00	\$19.00		\$563.00
OC HYB	<b>WR-122Z-05 326387 T</b>		R. MURPHY			\$492.00	\$52.00	\$19.00		\$563.00
OC HYB LCT	<b>WR-122Z-06 326388 W</b>		S. MACH			\$492.00	\$52.00	\$19.00		\$563.00
ONL	<b>WR-122Z-07 326389</b>		R. MURPHY			\$492.00	\$52.00	\$19.00		\$563.00
ONL LCT	<b>WR-122Z-08 326390</b>		C. BURNELL			\$492.00	\$52.00	\$19.00		\$563.00
ONL LCT	<b>WR-122Z-09 326391</b>		M. WARREN			\$492.00	\$52.00	\$19.00		\$563.00
ONL LCT	<b>WR-122Z-10 326392</b>		M. WARREN			\$492.00	\$52.00	\$19.00		\$563.00
WILS HYB	<b>WR-122Z-15 329387 W</b>		TBA			\$492.00	\$52.00	\$19.00		\$563.00
HAR HYB	<b>WR-122Z-30 326395 TH</b>		S. PESZNECKER			\$492.00	\$52.00	\$19.00		\$563.00
	<b>WR-124ES ESCRITURA DE ENSAYOS DE NIVEL UNIVERSITARIO EN ESPAÑOL, 4 CREDITS</b>									
	Este curso ofrece una introducción al ensayo académico. El alumnado aprenderá un proceso de escritura y redacción: desde cómo hacer una «lluvia de ideas» para generar ideas hasta cómo corregir e editar un escrito. A la vez, se desarrollarán respuestas originales-en forma escrita-a reseñas y reportajes sobre temas controversiales y a los ensayos académicos difíciles. La clase enfatizará la alfabetización de la información, así como: cómo encontrar y evaluar materiales, recursos relevantes y obras originales; cómo integrarlos en una redacción académica y cómo citarlos.									
	<b>Required:</b> Los y las estudiantes deben leer y escribir a nivel universitario, en español, antes de comenzar el curso									
	<b>Prerequisites:</b> WRD-098 o ubicación en WR-121Z									
ONL LCT ESPAÑOL	<b>WR-124ES-01 326397</b>		A. DEFRESE			\$492.00	\$52.00	\$0.00		\$544.00
	<b>WR-127 SCHOLARSHIP ESSAY WRITING, 1 CREDIT</b>									
	Introduces scholarship resources and the application process. Examines and applies the concept of 'telling the story of me,' and drafting, revising, and editing a complete scholarship application essay.									
ONL LCT	<b>WR-127-01 326398</b>		S. NIZIOLEK			\$123.00	\$13.00	\$19.00		\$155.00
	<b>WR-128 INTRODUCTION TO APA STYLE &amp; DOCUMENTATION, 1 CREDIT</b>									
	Introduces American Psychological Association (APA) style and documentation, including document format, in-text citation, and references page. Includes style and documentation for narrative and academic papers. Students will work with provided sources. Recommended for pre-nursing and nursing students, allied health students, and STEM and social science students.									
	<b>Prerequisites:</b> WR-121Z with a C or better									
ONL LCT	<b>WR-128-01 326399</b>		S. PESZNECKER			\$0.00	\$0.00	\$19.00		\$19.00
	<b>WR-140 INTRODUCTION TO WRITING CREATIVELY, 4 CREDITS</b>									
	Guides students through the discussion and practice of writing creatively in many genres and formats, primarily poetry, fiction, drama, and creative non-fiction in a workshop format. May also include screenwriting, digital story telling, film, and performance genres.									
	<b>Recommended Prerequisites:</b> WRD-098 or placement in WR-121Z									
OC HYB LCT	<b>WR-140-01 326400 W</b>		S. MACH			\$492.00	\$52.00	\$0.00		\$544.00
	<b>WR-227Z TECHNICAL WRITING, 4 CREDITS</b>									
	WR-227Z introduces students to producing instructive, informative, and persuasive technical/professional documents aimed at well-defined and achievable outcomes. The course focuses on presenting information using rhetorically appropriate style, design, vocabulary, structure, and visuals. Students can expect to gather, read, and analyze information and to learn a variety of strategies for producing accessible, usable, reader-centered deliverable documents that are clear, concise, and ethical.									
	<b>Prerequisites:</b> WR-121Z with a C or better									
OC LCT	<b>WR-227Z-01 326401 TTH</b>		R. DAVIS			\$492.00	\$52.00	\$19.00		\$563.00
OC HYB LCT	<b>WR-227Z-02 326402 W</b>		J. MCALPINE			\$492.00	\$52.00	\$19.00		\$563.00
ONL LCT	<b>WR-227Z-03 326403</b>		L. ORMANDY			\$492.00	\$52.00	\$19.00		\$563.00
ONL LCT	<b>WR-227Z-04 326404</b>		A. WARREN			\$492.00	\$52.00	\$19.00		\$563.00
HAR HYB	<b>WR-227Z-30 329389 M</b>		S. WARREN			\$492.00	\$52.00	\$19.00		\$563.00
	<b>WR-241 FICTION WRITING I, 4 CREDITS</b>									
	Introduction to the theory, art and creative practice of fiction writing, with specific emphasis on short prose forms.									
	<b>Prerequisites:</b> WRD-098 or placement in WR-121Z									
OC HYB LCT	<b>WR-241-01 326405 T</b>		N. ROSEVEAR			\$492.00	\$52.00	\$0.00		\$544.00
	<b>WR-248 BOOKMAKING: DESIGN AND LAYOUT, 4 CREDITS</b>									

**Campus Locations:**  
**HAR:** Harmony Community Campus  
**OC:** Oregon City Campus  
**WILS:** Wilsonville Training Center  
**OFF:** Other Off-Campus Location

**Distance Education Notification:**  
**ONL:** Online Only  
**REM:** Remote (w/ scheduled meetings)  
**HYB:** In-person plus online work

**Other Coding Translations:**  
**TBA:** To be arranged: contact department first class  
**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total	Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor	Tuition	Fee	Crs. Fee				Instructor	Tuition	Fee	Crs. Fee		

This course covers the design and layout process to produce and publish manuscripts in book form. It includes basic design theory and the step-by-step process for laying out a manuscript using professional design software. Students will also learn how to submit publishable files for print-on-demand. May be repeated for up to 8 credits.

**Prerequisites:** WRD-098 or placement in WR-121Z

ONL	<b>WR-248-01</b>	<b>326406</b>											
	M. WARREN	\$492.00	\$52.00	\$60.00		\$604.00							

**WR-270 CREATIVE NONFICTION WRITING II: FOOD WRITING, 4 CREDITS**

Learn to write uniquely and powerfully about food, from recipes to reviews to personal narrative. Bring the pen to the plate and vice versa, enriching your appreciation for sustenance and sentences at the same time.

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

ONL LCT	<b>WR-270-01</b>	<b>326408</b>											
	A. COFFEY	\$492.00	\$52.00	\$0.00		\$544.00							

**WRD-090 INTRODUCTORY COLLEGE READING & WRITING 1, 4 CREDITS**

Students discuss a variety of short, pre-college-level readings, and learn a process for developing their own paragraphs and very short essays (up to two pages). Other topics include becoming an independent reader, summarizing, and writing academically.

**Prerequisites:** Placement in WRD-090

OC LCT	<b>WRD-090-01</b>	<b>326409 MW</b>			<b>10-11:50 AM</b>								
	TBA	\$492.00	\$52.00	\$19.00		\$563.00							
OC LCT	<b>WRD-090-02</b>	<b>326411 TTH</b>			<b>3-4:50 PM</b>								
	J. DAVIS	\$492.00	\$52.00	\$19.00		\$563.00							
ONL LCT	<b>WRD-090-03</b>	<b>326413</b>											
	A. WARREN	\$492.00	\$52.00	\$19.00		\$563.00							

**WRD-098 INTRODUCTORY COLLEGE READING & WRITING 2, 4 CREDITS**

Preparation for writing in college-level courses. Students discuss a variety of early-college-level readings, and develop and refine their own essays (up to three pages) through a process of revision and multiple drafts. Other topics include becoming a confident reader, finding and using information, and giving credit to sources through informal citations.

**Prerequisites:** WRD-090 or placement in WRD-098

OC LCT	<b>WRD-098-01</b>	<b>326415 MW</b>			<b>1-2:50 PM</b>								
	TBA	\$492.00	\$52.00	\$19.00		\$563.00							
OC LCT	<b>WRD-098-02</b>	<b>326417 TTH</b>			<b>10-11:50 AM</b>								
	T. DONNELLY	\$492.00	\$52.00	\$19.00		\$563.00							
ONL LCT	<b>WRD-098-03</b>	<b>326419</b>											
	D. MOUNT	\$492.00	\$52.00	\$19.00		\$563.00							
ONL LCT	<b>WRD-098-04</b>	<b>326421</b>											
	D. MOUNT	\$492.00	\$52.00	\$19.00		\$563.00							
ONL LCT	<b>WRD-098-05</b>	<b>326423</b>											
	N. ROSEVEAR	\$492.00	\$52.00	\$19.00		\$563.00							
OC HYB LCT	<b>WRD-098-06</b>	<b>326425 TH</b>			<b>1-2:50 PM</b>								
	N. ROSEVEAR	\$492.00	\$52.00	\$19.00		\$563.00							
HAR LCT	<b>WRD-098-30</b>	<b>326429 TTH</b>			<b>6-7:50 PM</b>								
	T. WALKER	\$492.00	\$52.00	\$19.00		\$563.00							

**WRD-098ES INTRODUCCIÓN A LA LECTURA Y ESCRITURA DE NIVEL UNIVERSITARIO 2, 4 CREDITS**

Preparación para la escritura a nivel de cursos universitarios. El alumnado dialogará sobre una variedad de lecturas, en español, a nivel introductorio o pre-universitario, desarrollarán y perfeccionarán sus ensayos (máximo de tres páginas) por medio del proceso de revisión y múltiples bosquejos. Otros temas incluyen: tener confianza como lector, buscar y encontrar información, y citar las fuentes por medio de citas informales.

**Prerequisites:** WRD-090 o ubicación en WRD-098

ONL ESPAÑOL	<b>WRD-098ES-01</b>	<b>329390</b>											
	A. DEFREESE	\$492.00	\$52.00	\$19.00		\$563.00							

**XWR-0001 CHRYSALIS WOMEN WRITERS, 0 CREDIT**

This club is for CCC students and non-students to support the creation of, practice of, and critique of creative writing. An honest and supportive critique group, welcomes both new and established women writers. Newcomers are welcome to attend without reading their own work until they are comfortable doing so. This workshop is led by local author Patricia Lichen.

REM LCT	<b>XWR-0001-01</b>	<b>326439 W</b>			<b>12-1:50 PM</b>								
	P. LICHEN	\$0.00	\$0.00	\$0.00		\$0.00							

This workshop will be held via Zoom.

**Zoology**

**Z-201 GENERAL ZOOLOGY, 4 CREDITS**

A lab course offering cellular and molecular basis of animal life including genetics, embryology, evolution, systematics, and protozoan diversity.

**Prerequisites:** MTH-095 or placement in MTH-111Z

**Corequisites:** Z-201L

**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

oc	<b>Z-201-01</b>	<b>326342 MW</b>			<b>10:30 -11:50 AM</b>								
	J. BOWN	\$492.00	\$52.00	\$55.00		\$599.00							

Corequisite: Take 1 of the following Z-201L-01, Z-201L-02.

**Z-201L GENERAL ZOOLOGY LAB, 0 CREDIT**

Lab course for Z-201

**Corequisites:** Z-201

oc	<b>Z-201L-01</b>	<b>326343 W</b>			<b>1-3:50 PM</b>								
	J. BOWN	\$0.00	\$0.00	\$0.00		\$0.00							

Corequisite: Take the following Z-201-01.

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**HAR:** Harmony Community Campus  
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**Other Coding Translations:**  
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**VAR:** Variable credit class

**ESPAÑOL:** Enseñado en español  
**LCT:** Low-Cost Text

# ACADEMIC REGULATIONS

## Absences/Attendance

- You must be officially registered to attend class.
- Be sure to notify your instructor if you can't make it to your first day of class. If you don't, you may lose your seat to a student on the wait list.
- **If you stop going to class and you don't officially drop the classes from your schedule, you will be held academically and financially responsible.**
- If the college is open on a religious holiday, you may be excused through prior arrangement with your instructors.
- If you attend a college-sponsored field trip, intercollegiate function or other event, you may be excused through prior arrangement with your instructors.
- **Financial aid programs have specific attendance requirements. Contact the Financial Aid Office for more information at [finaid@clackamas.edu](mailto:finaid@clackamas.edu) or [www.clackamas.edu](http://www.clackamas.edu).**

## Academic Standing

If you are a degree/certificate student taking 6 or more credits, you are required to maintain a 2.0 GPA and complete at least 50% of your attempted credits in order to remain in good academic standing.

## Active Military Duty

If you are called up for active military duty, and wish to withdraw from classes, you will be held harmless with as much as possible regard to financial and academic responsibility.

- You will be asked to officially withdraw from classes by web, fax, mail, or in person.
- Students who have already shipped out or are unable to drop classes should contact Enrollment Services: 503-594-6074 or [registrar@clackamas.edu](mailto:registrar@clackamas.edu).
- You will be asked to submit a copy of your orders along with a request for a refund/credit to Enrollment Services.
- Requests to be held harmless financially and academically for a prior term enrollment must be submitted directly to the Registrar at 503-594-3370 or [chris.sweet@clackamas.edu](mailto:chris.sweet@clackamas.edu).

## Adding and Dropping Classes

- You are required to obtain instructor permission (signature) once classes begin.
- You must officially drop courses you have registered for if you decide to stop going to class. **Ceasing to attend class does not constitute official withdrawal! You will be held responsible academically and financially if you do not officially drop your courses. Official withdrawal is via myClackamas or in person.**

## Administrative Withdraw

- If you don't attend your class during the first two weeks of the class, instructors **MAY** drop you but **ARE NOT REQUIRED** to do so. This is called administrative withdrawal.
- If an instructor does an administrative withdrawal, you may be granted a full refund of charges for the class.
- An instructor may administratively withdraw you from a course if you are unable to demonstrate fulfillment of the stated class prerequisite or co-requisite requirement.

- If you are utilizing financial aid or veterans benefits, you may owe a repayment. Please check with these offices for additional information regarding your enrollment status and entitlement to benefits.
- If you are administratively withdrawn from a course, you will be notified by Enrollment Services.

## Audit

An audit allows you to attend class without responsibility for a grade. Audit carries no credit, doesn't contribute toward full-time status and does not meet full-time status required for veterans, Social Security, financial aid or athletic eligibility. All other college policies apply including registration, tuition payment, refunds, and attendance. If you decide to change your status from audit to credit or credit to audit, notify your instructor prior to the end of the sixth week of the term.

If you are a financial aid student, please notify the Financial Aid Office if you change from a credit to an audit or receive an audit grade. You may be required to pay back funds. Audit classes do not qualify for financial aid.

## Variable Credit

Some courses are eligible for variable credit. These courses are noted in the Schedule of Classes with a "V" in the credit column. This option allows you to pursue an individualized learning program. You must register for the number of credits you expect to earn in that term as determined with your instructor. Changes to variable credit must be processed through registration by the end of the 10th week of the term.

## Wait List

Some CCC classes utilize a wait list option. If the class you want to register for is full and it has a wait list:

- Add your name to the wait list via myClackamas or in person.
- When a spot opens up, you will receive an email in your [@student.clackamas.edu](mailto:@student.clackamas.edu) email. You will have 48 hours to respond to the email.
- To add the class, go to "Manage my wait list" within myClackamas to register.
- You are responsible academically and financially if you no longer want to be in the class and don't drop it.

The following conditions may affect your eligibility for wait list placement:

- Wait list capacity has been met.
- There is a "hold" on your student record that restricts registration.
- There are course restrictions in place such as "instructor consent."
- You are already enrolled in another section of the same course.
- There is a time conflict with the course you have selected.
- You have reached the maximum number of credits allowed (18) without additional authorization.
- Class has already begun.

## FERPA

Directory information about your student record may be released without your permission under the Family Educational Rights & Privacy Act (FERPA). CCC will release the following directory information:

- Full name
- Enrollment status
- Enrollment dates
- Verification of certificate, degree, or honors and awards
- Residency status
- Major/program
- Athletic participation

No other information will be released without your permission. If you have questions regarding FERPA, please contact Enrollment Services, 503-594-6074 or go to our website: [www.clackamas.edu](http://www.clackamas.edu)



## Student Right to Know and Other Notification Requirements

Clackamas Community College information regarding academic programs, student completion/graduation rates, financial assistance, athletics, institutional financial support, privacy rights (FERPA), campus security, crime statistics and other Student Right to Know items may be obtained by viewing our annual college catalog or by going to [www.clackamas.edu](http://www.clackamas.edu). Printed copies of this information may also be obtained by contacting Enrollment Services at 503-594-6074 or [registrar@clackamas.edu](mailto:registrar@clackamas.edu).



Clackamas Community College is accredited by the Northwest Commission on Colleges and Universities.

Accreditation of an institution of higher education by the Northwest Commission on Colleges and Universities indicates that it meets or exceeds criteria for the assessment of institutional quality evaluated through a peer review process. An accredited college or university is one which has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Accreditation by the Northwest Commission on Colleges and Universities is not partial but applies to the institution as a whole. As such, it is not a guarantee of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend the institution.

Inquiries regarding an institution's accredited status by the Northwest Commission on Colleges and Universities should be directed to the administrative staff of the institution. Individuals may also contact:

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



## Transportation Options for Students

Clackamas Community College provides a variety of transportation options including a free shuttle, carpooling matching service and multiple bus options.

**The latest information and additional details can be found at [www.clackamas.edu/transportation](http://www.clackamas.edu/transportation).**

### OREGON CITY AND CLACKAMAS INDUSTRIAL AREA SHUTTLES

Free shuttles in Oregon City and Clackamas Industrial Area. Shuttle routes can be found at <https://www.clackamas.us/h3s/connects-shuttle>.

### CARPOOL MATCHING SERVICE

Find a carpool partner at [GetThereOregon.org](http://GetThereOregon.org). Sign up using your @student.clackamas.edu email address.

### PUBLIC TRANSPORTATION

Clackamas Community College is serviced by a number of bus lines. Plan your trip on Google Maps.

## Save money on your CCC Commute!

### NEAR CLACKAMAS TOWN CENTER?

Ride the free Clackamas Industrial Area Shuttle, starting service Spring 2021.



### DRIVE?

Find a carpool partner at [GetThereOregon.org](http://GetThereOregon.org).



### RIDE THE BUS?

CCC received a \$13,872 grant for free TriMet fares. Email [transportation@clackamas.edu](mailto:transportation@clackamas.edu) to schedule a time to get the free fares.



## Services for Students

The Student Life & Leadership Office in room 152 of the Community Center offers lots of services to help you. Here's a list. For more information, call 503-594-3040. <http://depts.clackamas.edu/asg>

**Lending Library:** Rent a textbook for \$20. (Not all books available. Opens the first day of each term.)

**Tours:** Explore the campus with a CCC student leader. These are current CCC students whose job is to help students get accustomed to the college. For more information please email [campustour@clackamas.edu](mailto:campustour@clackamas.edu).

**Calculator Rentals:** A great alternative to buying an expensive calculator, students may rent a calculator for 24 hours for free. You can also rent a calculator for the entire term for \$20.

**Locker Rentals:** Backpacks can get heavy with all those textbooks. Rent a locker to store your textbooks and school work.

**Grants:** There are grants available for Childcare, Textbooks, Fees, Transportation and Veteran's. Grants are awarded each term to students who have demonstrated need. Fill out an application online at [www.clackamas.edu/asg/grants](http://www.clackamas.edu/asg/grants).

**Community Service:** Student Government offers a variety of opportunities to get involved in the community. Get involved!

**Clubs:** Do you have a special interest? Want to meet new people? CCC offers many clubs for students. Find out more in Student Life & Leadership.

**Lost & Found:** Located in the Student Government office in WC160.

**Fax & Phone:** Fax service is available for 50 cents per page for local numbers and \$1 for the first page on long distance numbers. All pages thereafter are 50 cents per page. There is a phone you can use, free of charge, in the Community Center. Please limit calls to three minutes.

**Register to Vote:** It's simple and fast. Fill out the form in the Student Government office. A Student Government representative will deliver the forms to the county office.

### CLACKAMAS YMCA CHILD DEVELOPMENT CENTER

Regular child care is available Monday-Friday, 6:30 a.m.-6:30 p.m. for children ages six weeks to 12 years old.

Pre-enrollment is necessary (no drop-ins). Call 503-657-9795 for rates and availability.



# FACULTY ADVISORS

Undecided or need more information  
about your program of study?

Faculty advisors have the answers.

PROGRAM	ADVISOR	PHONE	ROOM	EMAIL
Accounting	Joan San-Claire	503-594-3013	S124	joan.san-claire@clackamas.edu
Administrative Assistant/Professional	Beverly Forney	503-594-3115	S129	beverlyf@clackamas.edu
Adult High School Diploma	Lisa Nielson	503-594-3401	D144	lisan@clackamas.edu
Anthropology	Jessica Kissler	503-594-6625	M210	jessica.kissler@clackamas.edu
Apprenticeship	Katelyn Karch	503-594-6201	T128	kkarch@clackamas.edu
Arboriculture	April Chastain	503-594-3055	C124	april.chastain@clackamas.edu
Art	Nora Brodnicki	503-594-3036	AC106	norab@clackamas.edu
Automotive	Shelly Tracy	503-594-0945	T112	shellyt@clackamas.edu
Business Administration	Sharon Parker	503-594-3075	S123	sharonp@clackamas.edu
Career Technical Education Instruction	Laurette Scott	503-594-3840	F115	laurette@clackamas.edu
Clinical Lab Assistant/Phlebotomy	Marilyn Braught	503-594-0634	H350	marilyn.braught@clackamas.edu
Communications/Speech	Kerrie Hughes	503-594-3155	N137	kerrieh@clackamas.edu
Computer Science: Transfer	Rich Albers	503-594-3166	S126	richa@clackamas.edu
Computer Science: Application Support & Web Design	Debra Carino	503-594-3170	S125	dcarino@clackamas.edu
Computer Science: Network Administration	Rick Carino	503-594-3167	S179	rcarino@clackamas.edu
Computer Science: Transfer	Jen Miller	503-594-3138	S127	jen.miller@clackamas.edu
Criminal Justice/Corrections	Joanna Crawford	503-594-6229	HW315	joanna.crawford@clackamas.edu
Customized Training & Development Services	Staff	503-594-3200	DJ210	training@clackamas.edu
Dental Assistant	Kari Hiatt	503-594-0674	H385	kari.hiatt@clackamas.edu
Digital Media Communications	Nora Brodnicki	503-594-3036	AC106	norab@clackamas.edu
Early Childhood Education	Dawn Hendricks	503-594-6158	F116	dawn.hendricks@clackamas.edu
Economics	Derek Lougee	503-594-3408	M213	derek.lougee@clackamas.edu
Education	Laurette Scott	503-594-3840	F115	laurette@clackamas.edu
Electronics and Microelectronics	Mike Mattson	503-594-3322	I217	mattsonm@clackamas.edu
Emergency Medical Technology	Tana Sawzak	503-594-6025	H382	tanas@clackamas.edu
Engineering	Eric Lee	503-594-6163	DJ212	elee@clackamas.edu
Engineering	Matt LaForce	503-594-3148	DJ210	laforce@clackamas.edu
English	Amanda Coffey	503-594-3257	RR237	amandac@clackamas.edu
English for Speakers of Other Languages	Andrea Vergun	503-594-3880	D146	andreav@clackamas.edu
Environmental Safety and Health	Mike Mattson	503-594-3322	I217	mattsonm@clackamas.edu
Fire Science	Erin Gravelle	503-594-3323	I127	wildlandfire@clackamas.edu
GED/ABE	Lisa Nielson	503-594-3401	D144	lisan@clackamas.edu
Geography	Jessica Kissler	503-594-6625	M210	jessica.kissler@clackamas.edu
Gerontology	Yvonne Smith	503-594-3207	HW315	yvannes@clackamas.edu
GIS	Angela Armen	503-594-3678	M223	angela.armen@clackamas.edu
History	Jackie Flowers	503-594-3405	M217	jackief@clackamas.edu
Horticulture	April Chastain	503-594-3055	C124	april.chastain@clackamas.edu
Human Resource Management	Michael Moiso	503-594-3770	S128	mmoiso@clackamas.edu
Human Services	Yvonne Smith	503-594-3207	F119	yvannes@clackamas.edu
Humanities	Jessica Kissler	503-594-6625	M210	jessica.kissler@clackamas.edu
Humanities	Amanda Coffey	503-594-3257	RR237	amandac@clackamas.edu
Industrial Technology	Mike Mattson	503-594-3322	I217	mattsonm@clackamas.edu
Journalism	Melissa Jones	503-594-3261	RR132	melissaj@clackamas.edu
Landscape Management	April Chastain	503-594-3055	C124	april.chastain@clackamas.edu
Marketing	Sharon Parker	503-594-3075	S123	sharonp@clackamas.edu
Math	Beverly Forney	503-594-3115	S129	beverlyf@clackamas.edu
Medical Assistant	Mark Yannotta	503-594-3335	S119	marky@clackamas.edu
Music	Sarah Parker	503-594-6497	H381	sarah.parker@clackamas.edu
Music Technology	Lars Campbell	503-594-3384	N131	lars.campbell@clackamas.edu
Nursing	Staff	503-594-3337	N129b	music@clackamas.edu
Organic Farming	Carol Dodson	503-594-0654	H280	carold@clackamas.edu
Philosophy	April Chastain	503-594-3055	C124	april.chastain@clackamas.edu
Physical Education/Health	Jessica Kissler	503-594-6625	M210	jessica.kissler@clackamas.edu
Political Science	Jim Martineau	503-594-3271	R101c	jmartineau@clackamas.edu
Pre-Professional (medical, dental, pharmacy)	Jessica Kissler	503-594-6625	M210	jessica.kissler@clackamas.edu
Project Management	Eden Francis	503-594-3352	P124k	edenf@clackamas.edu
Psychology	Frank Corona	503-594-6498	S130	francisco.corona@clackamas.edu
Religion	Jessica Kissler	503-594-6625	M210	jessica.kissler@clackamas.edu
Reading/Study Skills	Jessica Kissler	503-594-6625	M210	jessica.kissler@clackamas.edu
Renewable Energy	Lisa Nielson	503-594-3401	D144	lisan@clackamas.edu
Retail Management	Mike Mattson	503-594-3322	I217	mattsonm@clackamas.edu
Science	Beverly Forney	503-594-3115	S129	beverlyf@clackamas.edu
Search and Rescue	Tory Blackwell	503-594-3646	DJ225	toryb@clackamas.edu
Skills Development	Matt Adams	503-594-3677	T125	att.adams@clackamas.edu
Small Business Development Center	Lisa Nielson	503-594-3401	D144	lisan@clackamas.edu
Social Science	Rob Campbell	503-594-0733	HW160E	bizcenter@clackamas.edu
Sociology	Jessica Kissler	503-594-6625	M210	jessica.kissler@clackamas.edu
Theatre Arts	Erich Pfeifer	503-594-3802	M225	erichp@clackamas.edu
Undecided Major of Study	Chris Whitten	503-594-3153	N153	cwhitten@clackamas.edu
Uncrewed Aircraft Systems	Student Support Services	503-594-3475	WC	advising@clackamas.edu
Water & Environmental Technology	Angela Armen	503-594-3678	M223	angela.armen@clackamas.edu
Water & Environmental Technology	Matt LaForce	503-594-3148	DJ210	laforce@clackamas.edu
Welding	Jim Nurmi	503-594-3813	DJ211	jamesn@clackamas.edu
Women's Studies	Shelly Tracy	503-594-0945	T112	shellyt@clackamas.edu
World Languages	Jessica Kissler	503-594-6625	M210	jessica.kissler@clackamas.edu
	Ernesto Hernandez	503-594-3710	M245	ernesto.hernandez@clackamas.edu

# WHERE TO CALL

CCC'S MAIN PHONE NUMBER IS 503-594-6000.

**BLDG.\* DEPARTMENT/OFFICE PHONE**

## ABE/GED

D	Oregon City	503-594-3027
H	Harmony	503-594-3027
D	Adult High School Diploma – Oregon City	503-594-3027

## Academic Advising

WC	Oregon City	503-594-3475
H	Harmony	503-594-0623
W	Wilsonville	503-594-0959

## Bookstore

M	Bookstore – Oregon City	503-594-6500
H	Bookstore – Harmony	503-594-0647

## Testing/Assessment Center

WC	Oregon City	503-594-3283
H	Harmony	503-594-0636
W	Wilsonville	503-594-0940

B	Account Receivable	503-594-6068
WC	Admissions & Recruitment/Welcome Center	503-594-3284
WC	Advanced College Credit	503-594-3161
T	Apprenticeship	503-594-3031
C	Arboriculture	503-594-3292
AC	Art	503-594-3034
R	Athletics	503-594-3043
B	Automotive	503-594-3047
S	Business	503-594-3071
HW	Business Development Center	503-594-0738
B	Business Office	503-594-3085
WC	Cafeteria	503-594-6091
WC	Campus Tours	503-594-6249
WC	Career Center	503-594-6001
I	Career Technical Education	503-594-3441
F	Child Care Center	503-657-9795
	Child Care Info & Referral	503-253-5000
P	The Clackamas Print Newspaper	503-594-3261
M	College Safety Office	503-594-6650
N	Communication Studies	503-594-6489
H	Community Education	503-594-0627
	Community Garden	503-594-3040
D	Computer Lab (Academic)	503-594-6632
S	Computer Lab (Open)	503-594-6632
S	Computer Science	503-594-3071
WC	Cooperative Work Experience	503-594-3511
D	Cougar Connect Desk	503-594-6632
WC	Counseling	503-594-3176
HW	Criminal Justice/Corrections	503-594-3203
C	Customized Training & Development	503-594-3200
AC	Digital Media Communications	503-594-3034
WC	Disability Resource Center	503-594-6357
F	Education and Early Childhood Education	503-594-3203
I	Electronics & Microelectronics	503-594-3318
T	Emergency Management	503-594-3539
DJ	Engineering	503-594-3345

**BLDG.\* DEPARTMENT/OFFICE PHONE**

RR	English	503-594-3254
D	English for Speakers of Other Languages	503-594-3234
WC	Enrollment Services	503-594-6074
ELC	Environmental Learning Center	503-594-3015
B	Environmental Safety & Health	503-594-3322
G	Facility Scheduling-Oregon City	503-594-3308
H	Facility Scheduling-Harmony	503-594-0620
W	Facility Scheduling-Wilsonville	503-594-0970
WC	Financial Aid and Scholarship Office	503-594-6082
T	Fire Science (Wildland Fire)	503-594-3539
HW	Gerontology	503-594-3203
T	GIS	503-594-6495
WC	Graduation Services	503-594-6651
R	Gym	503-594-3043
H	Harmony Campus Registration/Information	503-594-0620
H	Health Sciences	503-594-0650
WC	High School Connections	503-594-3161
C	Horticulture	503-594-3292
B	Human Resources/Employment Opportunity	503-594-3458
F	Human Services	503-594-3203
I	Industrial Technology	503-594-3318
B	Instructional Media Services	503-594-3500
C	Landscape	503-594-3292
D	Learning Center	503-594-6191
D	Library - Circulation	503-594-6323
D	Library - Reference	503-594-6042
WC	Life & Career Options	503-594-3176
S	Math	503-594-3395
D	Moodle Help	503-594-6632
N	Music	503-594-3337
H	Nursing	503-594-0650
WC	Office of Education Partnerships	503-594-3161
C	Organic Farming	503-594-3292
S	Online Learning & Educational Technology	503-594-6618
P	Pauling Center Gallery	503-594-3034
R	Physical Education	503-594-3271
RR	President's Office	503-594-3002
WC	Registration and Records	503-594-6074
I	Renewable Energy Technology	503-594-3318
DJ	Science	503-594-3345
D	Skills Development	503-594-3233
M	Social Science	503-594-3403
WC	Student Government	503-594-3040
WC	Student Life & Leadership	503-594-3040
WC	Student Support Services	503-594-3475
N	Theater/Performing Arts	503-594-3153
D	Tutoring Services	503-594-6191
WC	Veterans Educational Benefits	503-594-3438
WC	Veterans Education & Training Center	503-594-3438
RR	Vice President, College Services	503-594-3010
RR	Vice President, Instructional & Student Services	503-594-3020
DJ	Water & Environmental Technology	503-594-3345
T	Welding	503-594-3046
W	Wilsonville Registration/Information	503-594-0940
P	Workforce Development Services	503-594-6246
M	World Languages	503-594-3403
D	Writing Center	503-594-6275

\* Find building code key on the campus map on the back cover of this schedule.

## COLLEGE SAFETY

In an emergency or life-threatening situation, dial **911** from any phone.  
College Safety Office, ext. **6234** or **6650** or call **971-563-0101**.

## CCC BOOKSTORES

**Oregon City campus** – in McLoughlin Hall, ground floor  
503-594-6500

**Harmony campus** – Closed at this time. Please visit the OC  
Campus store for all your bookstore needs.  
Online at <http://clackamas.bnccollege.com>

### IN-STORE CUSTOMERS

#### Payment types:

- Cash
- Debit / credit
- Financial Aid – 3rd Party Account or Student Account

**ONLINE ORDERS** can be shipped out (for a fee)  
or held for customer pick-up. Credit card payment  
required at time of order. Email notifications will be sent  
when order is shipped or is ready to be picked up.

#### Fall 2023 dates to remember:

Textbook sales begin online and in-store – Sept. 1, 2023

Last day for textbook refunds –

Sept. 8 without drop; Oct. 20 with proof of drop

Rental books due back – December 8, 2023

*For campus maps, store hours, shipping costs,  
refund/returns policies and ordering details, see  
<http://clackamas.bnccollege.com> or call the bookstore  
at 503-594-6500. We will be happy to answer your  
questions personally!*

## Low-Cost Texts

Low-cost text (LCT) course sections use textbooks and/  
or other course materials that have a minimal cost. The  
total cost of textbooks and/or materials\* in every low-cost  
course will be \$40 or less. Identify CCC's low-cost courses  
by looking for the **LCT** icon.

*\*Included in the cost calculations are: required textbooks  
and other text-based materials, workbooks, lab manuals,  
online homework software (e.g. mymathlab), and codes  
or publisher-provided curricular materials for students.  
Printing costs are not included, unless a printed version  
is required for the course. Excluded from the cost  
calculations are: art supplies, calculators, software, course  
and student fees or equipment, and optional costs.*

**DISCLAIMER:** Clackamas Community College makes every effort that the  
low-cost sections identified in this printed schedule are accurate at the time  
of publication. However, review the online schedule or contact the course  
instructor for the most up-to-date information on textbook and material  
costs.

## College Closure Information



### ANNOUNCEMENTS

In the event of hazardous weather or other emergencies,  
the following will carry school schedule changes and  
college closure information:

- Clackamas website, [www.clackamas.edu](http://www.clackamas.edu)
- Local radio and television broadcasts and websites
- Recorded phone message on the college's main number:  
503-594-6000
- Facebook, [Facebook.com/ClackamasCommCollege](https://www.facebook.com/ClackamasCommCollege)
- Twitter, @ClackCollege

### COLLEGE CLOSURE LOCATIONS

In the event that the college is closed due to adverse  
weather conditions, all college campuses and centers will  
close. In the event of a non-weather related emergency  
closure (e.g., loss of electricity), only the affected campus  
will close.

### COLLEGE CLOSURE TIMES

Emergency closures due to hazardous weather or other  
emergencies:

**Day Closure** – Offices are closed and classes are canceled  
unless exceptions are announced. Shuttle service is also  
canceled.

**Late Opening** – The college will open at 10 a.m. All  
classes, events and activities on all CCC campuses are  
canceled until 10 a.m.

**Early Closure** – All classes, activities and events starting  
at or after 4 p.m. will be canceled on all campuses.  
Campuses will remain open until 5 p.m.

### CLOSURES DURING FINAL WEEK

#### **One day closure during final week:**

Monday, Tuesday and/or Wednesday daytime finals will be  
rescheduled for Thursday during the same time period as  
originally scheduled.

#### **Second day closure during final week:**

Finals will be rescheduled for Friday during the same time  
period as originally scheduled.

#### **Evening closure during final week:**

Finals will be rescheduled for Friday evening during the  
same time period as originally scheduled.

*Note: These are general guidelines. Exceptions may occur.*

### EMERGENCY NOTIFICATIONS

CCC students are automatically enrolled in Clackamas  
Community College's phone, text message and email  
emergency notification system – Rave Alert.

The Rave Alert system will NOT charge fees, however  
standard or other messaging charges apply depending on  
wireless carrier plan and subscription details.



# Clackamas Community College

## OREGON CITY CAMPUS



### BUILDING CODES and SERVICES

- Art Center (AC)**
- Barlow Hall (B)**
  - Human Resources
- Clairmont Hall (C)**
  - Clackamas Volunteers in Medicine
- DeJardin Hall (DJ)**
- Dye Learning Resource Center (D)**
  - Academic Computer Lab
  - Library
  - Moodle Help
  - Tutoring
- Environmental Learning Center (ELC)**
- Family Resource Center (F)**
  - Child Development Center
- Gregory Forum (G)**

- Holden Industrial Technology Center (I)**
- Lewelling (L)**
  - Campus Services
  - Shipping & Receiving
- McLoughlin Hall (M)**
  - Bookstore
  - College Safety
- Niemeyer Center (N)**
  - Alexander Art Gallery
  - Osterman Theatre
- Pauling Center (P)**
  - Connections with Business and Industry
  - Workforce Services
- Randall Hall (R)**
  - Athletics Center
- Roger Rook Hall (RR)**
  - Foundation
  - President's Office

- Streeter Hall (S)**
  - Online Learning & Educational Technology
- Training Center (T)**
- Wacheno Welcome Center (WC)**
  - Admissions Center
  - Advising
  - Career Services
  - Cougar Café
  - Disability Resource Center
  - Education Partnerships
  - Financial Aid
  - Multicultural Center
  - Registration/Records
  - Student Accounts
  - Student Government
  - Testing Center
  - VET Center

### CCC CAMPUS SITES

- CCC at Harmony Community Campus**  
7738 SE Harmony Road  
Milwaukie, OR 97222
- CCC Oregon City**  
19600 Molalla Ave.  
Oregon City, OR 97045
- CCC Wilsonville Campus**  
29353 SW Town Center Loop E  
Wilsonville, OR 97070

### CCC OFF-CAMPUS SITES

- Canby Applied Technology Center**  
721 SW Fourth St., Canby, OR 97013
- Estacada High School**  
355 NE 6th, Estacada, OR 97023
- Molalla Center**  
(behind Molalla Public Library)  
201 East Fifth, Molalla, OR 97308