



# Schedule



*Spring 2025*

Spring term classes begin March 31 • [www.clackamas.edu](http://www.clackamas.edu) • Go Far, Close to Home.

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## 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

### 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.*

# IMPORTANT DATES TO REMEMBER



<b>CLASS START/END DATES + FINANCIAL DEADLINES *</b>	<b>SPRING TERM 2025</b>	<b>SUMMER TERM 2025</b>	<b>FALL 2025</b>
<b>Financial aid:</b> All required CCC financial aid documentation due to ensure funding for term	Jan. 6	March 31	June 23
<b>Registration begins</b>	Feb. 24	May 12	May 19
<b>Classes begin</b>	March 31	June 23	Sept. 29
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. 5 for more info)	April 13	July 6	Oct. 12
Last day to drop classes and receive a "W" automatically	May 23	August 15	Nov. 21
Last day to submit petition for graduation	May 9	August 1	Nov. 7
Last day to change grading option	June 6	August 29	Dec. 5
Account balance due: \$100 non-payment fee applied if not paid	May 9	August 4	Nov. 7
<b>Final week</b>	June 9-13	see syllabus	Dec. 8-13
<b>Last day of term</b>	June 14	Sept. 6	Dec. 13
Commencement: GED & Adult High School Diploma / College Certificate and Degree	Friday evening, June 13, 2025		

\* 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>SPRING TERM: May 26</b> Memorial Day
<b>SUMMER TERM: June 19</b> Juneteenth, <b>July 3</b> Independence Day
<b>FALL TERM: Sept. 1</b> Labor Day, <b>Nov. 11</b> Veterans Day, <b>Nov. 27-28</b> Thanksgiving, <b>Dec. 24-25</b> Winter Holiday

## 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.



# GETTING STARTED AT CCC

## 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 two 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 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)

# PAYING FOR CLASSES AT CCC



## 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	\$126 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	\$305 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 May 9 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.

### Financial Aid questions?

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

## 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.

# 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. Please visit <https://www.clackamas.edu/admissions-financial-aid/getting-started> to make sure you have completed the getting started steps to be able to register.

Registration times:

CREDITS	DATE	TIME
Veterans	Monday, Feb. 24, 2025	Noon
80+	Tuesday, Feb. 25, 2025	8 a.m.
60-79	Tuesday, Feb. 25, 2025	Noon
40-59	Wednesday, Feb. 26, 2025	8 a.m.
30-39	Wednesday, Feb. 26, 2025	Noon
20-29	Thursday, Feb. 27, 2025	8 a.m.
6-19	Thursday, Feb. 27, 2025	Noon
1-5	Friday, Feb. 28, 2025	8 a.m.
Open Registration	Friday, Feb. 28, 2025	Noon

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

## 2024-25 CHANGES:

- **In-state tuition:** Increased by \$5 resulting in a \$126 per credit rate
- **Out-of-state tuition:** Increased by \$12 resulting in a \$305 per credit rate

### 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.

# 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.



**Cougar Alert!**

## 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 graduation ceremony which includes GED/ Adult High School Diploma students and certificate and degree graduation students will be held Friday evening, June 13, 2025. Information 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 \$70 por clase por un trimestre
- Estudiantes deben tener al menos 16 años de edad

Para más información y para registrarse, comuníquese con Cecilia Bracale 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 under My Courses in the **red** bar 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 (OLET) 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, visit the [Cougar Connect Tech Help Desk](#), call 503-594-6632, or email [cougarconnect@clackamas.edu](mailto:cougarconnect@clackamas.edu).

For after hours, weekend, or bilingual support (English/ Español), visit our [extended support team](#) (find them at [online.clackamas.edu](http://online.clackamas.edu) > Students > Moodle Help).

## 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.



# CLACKAMAS IN YOUR COMMUNITY

## Credit and non-credit courses offered at Clackamas Community College sites near you!

Along with the Oregon City campus, Clackamas Community College has two additional campuses to serve the needs of students in other parts of the district. The college's Harmony campus is a full service campus in the North Clackamas area (near Clackamas Town Center). The Wilsonville campus is full service as well, and is easily accessible from I-5. In addition, there are many CCC courses available in other communities throughout the district.

### CCC at Harmony Community Campus

7738 SE Harmony Road, Milwaukie, OR 97222

#### HARMONY COMMUNITY CAMPUS HOURS

Hours are subject to change. Please call 503-594-0620 or check [www.clackamas.edu/hours](http://www.clackamas.edu/hours) for updated information.

Campus is closed May 26.

##### Building Hours

Mar. 31-Jun. 14 M-F 7 a.m.-10 p.m.

##### Student Services

Mar. 31-Apr. 3 M-Th 9 a.m.-7 p.m.  
F Remote Services

Apr. 7-Jun. 14 M-Th 9 a.m.-5:45 p.m.  
F Remote Services

##### Advising

Mar. 31-Apr. 3 M-W 10 a.m.-6:15 p.m.  
Th 10 a.m.-4:30 p.m.  
F Remote Services

Mar. 31-Apr. 3 M 10 a.m.-4:30 p.m.  
T-Th Remote Services  
F Remote Services

##### Testing & Assessment

Mar. 31-Apr. 3 TBD

##### ITS

Mar. 31-Apr. 3 TBD

##### Tutoring Services

See posted hours on web, [www.clackamas.edu/tutoring](http://www.clackamas.edu/tutoring)

### CCC Wilsonville Campus

29353 SW Town Center Loop East, Wilsonville, OR 97070

#### WILSONVILLE HOURS

Hours are subject to change. Please call 503-594-0940 or check [www.clackamas.edu/hours](http://www.clackamas.edu/hours) for updated information.

Campus is closed May 26.

##### Building Hours

Mar. 31-June 14 M-Th 7 a.m.-10 p.m.

##### Student Services

By appointment only. Please call 503-594-0940 or email [wilsonvilleinfo@clackamas.edu](mailto:wilsonvilleinfo@clackamas.edu)

Mar. 31-June 14 M-Th 8:30 a.m.-6:30 p.m.

##### Advising Center

Advising by appointment. Please call 503-594-0959 or e-mail [apprenticeship.advising@clackamas.edu](mailto:apprenticeship.advising@clackamas.edu)

Mar. 31-June 14 T 10 a.m.-7 p.m.  
MwThF by appointment

##### Testing & Assessment Center

Testing by appointment. Please call 503-594-0940 or e-mail [testing.wilsonville@clackamas.edu](mailto:testing.wilsonville@clackamas.edu)

Mar. 31-June 14 M-Th 9 a.m.-5 p.m.

### Where to find food

**Vending Machines**, located in the Harmony East lobby and on Harmony West 2nd floor, are stocked with hot & cold drinks, snacks and a rotating assortment of breakfast items, sandwiches, burritos, hummus & veggie trays in the chilled cooler. There are microwaves available for student use in Harmony East on the 1st and 2nd floors.



**Cougar Alert!**

**To register for these classes, see Credit course listing for time, date, course registration number.**

# CLACKAMAS IN YOUR COMMUNITY

Credit and non-credit courses offered at Clackamas Community College sites near you Spring 2025

## Harmony Community Campus

Complete course information available in **Credit Course Listings**. Indicated with: **HAR**

### Biology

BI-112	GENERAL BIOLOGY FOR HEALTH SCIENCES	4 CREDITS
BI-112L	GENERAL BIOLOGY FOR HEALTH SCIENCES LAB	0 CREDIT
BI-120	INTRODUCTION TO HUMAN ANATOMY AND PHYSIOLOGY	4 CREDITS
BI-120L	INTRODUCTION TO HUMAN ANATOMY AND PHYSIOLOGY LAB	0 CREDIT
BI-233	HUMAN ANATOMY & PHYSIOLOGY III	4 CREDITS
BI-233L	HUMAN ANATOMY & PHYSIOLOGY III LAB	0 CREDIT

### Chemistry

CH-112	CHEMISTRY FOR HEALTH SCIENCES	4 CREDITS
CH-112L	CHEMISTRY FOR HEALTH SCIENCES LAB	0 CREDIT

### Communication Studies

COMM-111Z	PUBLIC SPEAKING	4 CREDITS
COMM-218Z	INTERPERSONAL COMMUNICATION	4 CREDITS

### Criminal Justice

CJA-101	CRIMINOLOGY	4 CREDITS
CJA-130	INTRODUCTION TO CORRECTIONS	3 CREDITS
CJA-200	COMMUNITY POLICING	3 CREDITS
CJA-213	INTERVIEW & INTERROGATION	3 CREDITS
CJA-215	SEXUAL ABUSE AND HUMAN TRAFFICKING	3 CREDITS
CJA-216	IMPLICIT BIAS AND POLICING	3 CREDITS
CJA-250	REPORTING, RECORDING & TESTIFYING	4 CREDITS
CJA-270	CRIMINAL JUSTICE CAPSTONE	3 CREDITS
CJA-280	CRIMINAL JUSTICE/CORRECTIONS/CWE	2-6 CREDITS
CJA-281	CRIMINAL JUSTICE/CORRECTIONS/CWE	2-6 CREDITS

### Dental Assistant

DA-106	CLINICAL PROCEDURES III	2 CREDITS
DA-106L	CLINICAL PROCEDURES III LAB	1 CREDIT
DA-130	CLINICAL PRACTICUM III	8 CREDITS
DA-135	PHARMACOLOGY/MEDICAL EMERGENCIES	2 CREDITS
DA-145	DENTAL OFFICE PROCEDURES	2 CREDITS

### Economics

EC-202	PRINCIPLES OF ECONOMICS: MACRO	4 CREDITS
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### Emergency Medical Technology

EMT-101	EMERGENCY MEDICAL TECHNICIAN PART I	6 CREDITS
EMT-102	EMERGENCY MEDICAL TECHNICIAN PART II	6 CREDITS
EMT-105	INTRODUCTION TO EMERGENCY MEDICAL SERVICES	3 CREDITS
EMT-109	EMERGENCY RESPONSE COMMUNICATION/DOCUMENTATION	2 CREDITS

### English for Speakers of Other Languages

ESOL-012	BEGINNING ESOL	0 CREDIT
ESOL-013	BEGINNING ESOL	0 CREDIT
ESOL-015	BEGINNING READING, WRITING, AND GRAMMAR	0 CREDIT
ESOL-020	UPPER BEGINNING GRAMMAR	0 CREDIT
ESOL-024	UPPER BEGINNING READING & WRITING	0 CREDIT
ESOL-030	INTERMEDIATE GRAMMAR A	0 CREDIT
ESOL-031	INTERMEDIATE GRAMMAR B	0 CREDIT
ESOL-032	INTERMEDIATE CONVERSATION 1	0 CREDIT
ESOL-034	INTERMEDIATE READING & WRITING	0 CREDIT
ESOL-042	UPPER INTERMEDIATE CONVERSATION 1	0 CREDIT
ESOL-044	UPPER INTERMEDIATE READING & WRITING	0 CREDIT
ESOL-046	EDITING FOR BETTER WRITING	0 CREDIT
ESOL-051	ADVANCED GRAMMAR B	0 CREDIT
ESOL-052	ADVANCED COMMUNICATION SKILLS 1	0 CREDIT
ESOL-054	ADVANCED READING & WRITING	0 CREDIT
ESOL-082	ASSESS/EVALUATE NEW STUDENTS	0 CREDIT
ESOL-083	EDUCATIONAL PLANNING FOR RETURNING STUDENTS	0 CREDIT
<b>Environmental Science</b>		
ESR-173	INTRODUCTION TO SUSTAINABILITY	4 CREDITS
ESR-173L	INTRODUCTION TO SUSTAINABILITY LAB	0 CREDIT



**Food & Nutrition**

FN-110	PERSONAL NUTRITION	3 CREDITS
FN-225	NUTRITION	4 CREDITS

**General Development Education (GED)**

GED-011	GED IN ESPAÑOL	0 CREDIT
GED-015	GED PREPARATION	0 CREDIT
GED-049	LATINO GED & LIFE SKILLS	0 CREDIT

**Geology**

G-103	GENERAL GEOLOGY	4 CREDITS
G-103L	GENERAL GEOLOGY LAB	0 CREDIT
G-203	GENERAL GEOLOGY	4 CREDITS
G-203L	GENERAL GEOLOGY LAB	0 CREDIT

**Gerontology**

GRN-183	DEATH AND DYING	3 CREDITS
GRN-280	GERONTOLOGY/CWE	2-6 CREDITS (VAR)

**Health**

HE-163	BODY & DRUGS I: INTRODUCTION TO ABUSE & ADDICTION	3 CREDITS
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**Health Professions**

HP-100	HEALTHCARE PROVIDER BLS/CPR, FIRST AID/BLOODBORNE PATHOGENS	1 CREDIT
HP-110	MEDICAL TERMINOLOGY	4 CREDITS
HP-120	INTRODUCTION TO HEALTH SCIENCES	3 CREDITS

**High School Diploma (AHSD)**

XASE-0001	BASIC ESSENTIAL SKILLS SUPPORT	0 CREDIT
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**Human Services**

HS-156	CONDUCTING HUMAN SERVICE INTERVIEWS	3 CREDITS
HS-216	GROUP COUNSELING SKILLS	3 CREDITS

**Mathematics**

MTH-020ES	FUNDAMENTOS DE ARITMÉTICA II	4 CREDITS
MTH-060	ALGEBRA I	4 CREDITS
MTH-065	ALGEBRA II	4 CREDITS
MTH-095	ALGEBRA III	4 CREDITS
MTH-212	FUNDAMENTALS OF ELEMENTARY MATH II	4 CREDITS

**Medical Assistant**

MA-100	INTRODUCTION TO MEDICAL ASSISTING	2 CREDITS
MA-166	PHLEBOTOMY II	1 CREDIT
MA-166L	PHLEBOTOMY II LAB	1 CREDIT
MA-174	CLINICAL LAB PROCEDURES II	1 CREDIT
MA-174L	CLINICAL LAB PROCEDURES II LAB	1 CREDIT

MA-178	MEDICAL ASSISTANT PRACTICUM	9 CREDITS
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**Medical Billing and Coding**

MBC-116	INSURANCE BILLING AND REIMBURSEMENT II	4 CREDITS
MBC-125	ICD-10 CODING I	2 CREDITS
MBC-126	CPT/HCPCS CODING I	4 CREDITS

**Nursing**

NRS-112	FOUNDATIONS OF NURSING IN ACUTE CARE I	2 CREDITS
NRS-112C	FOUNDATIONS OF NURSING IN ACUTE CARE I CLINICAL	4 CREDITS
NRS-224	INTEGRATIVE PRACTICUM	2 CREDITS
NRS-224C	INTEGRATIVE PRACTICUM CLINICAL	7 CREDITS
NRS-233	PATHOPHYSIOLOGICAL PROCESSES II	3 CREDITS
NUR-100	NURSING ASSISTANT I	6.5 CREDITS
NUR-100C	NURSING ASSISTANT I CLINICAL	0 CREDIT

**Phlebotomy**

PHB-110	FUNDAMENTALS OF PHLEBOTOMY	5 CREDITS
PHB-112	PHLEBOTOMY TECHNIQUES	2 CREDITS
PHB-115	PROFESSIONALISM FOR PHLEBOTOMISTS	1 CREDIT

**Religion**

R-212	HISTORY OF THE NEW TESTAMENT	4 CREDITS
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**Small Business Development Center**

SBM-010	REAL ESTATE BROKER LICENSE	0 CREDIT
SBM-011	PROPERTY MANAGEMENT PRE-LICENSE	0 CREDIT
SBM-020	SMALL BUSINESS GREENHOUSE	0 CREDIT
SBM-021C	SMALL BUSINESS MANAGEMENT I	0 CREDIT
SBM-024C	SUCCESSION PLANNING	0 CREDIT
SBM-029C	SMALL BUSINESS MANAGEMENT II FOR CONSTRUCTION CONTRACTORS	0 CREDIT
XSBM-0003	GOING INTO BUSINESS	0 CREDIT
XSBM-0011	QUICKBOOKS PRO: PART I	0 CREDIT

**Writing**

WR-121Z	COMPOSITION I	4 CREDITS
WR-122Z	COMPOSITION II	4 CREDITS
WR-227Z	TECHNICAL WRITING	4 CREDITS
WRD-098	INTRODUCTORY COLLEGE READING & WRITING 2	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	

# COURSE LISTING

Credit and non-credit Courses offered Spring 2025

## 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	336092	MTWTH		10-11:50 AM	
	D. GREEN	\$0.00	\$0.00	\$55.00	\$55.00	

Required: Student Petition. Please call 503-594-3027 for orientation information.

## Anthropology

### ANT-101 BIOLOGICAL 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

ONL LCT	ANT-101-01	336097				
	K. BACA	\$504.00	\$52.00	\$0.00	\$556.00	

Online textbook provided first day of class.

### 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 LCT	ANT-102-01	336102	TTH		1-2:50 PM	
	K. BACA	\$504.00	\$52.00	\$0.00	\$556.00	
	Online textbook provided first day of class.					
ONL LCT	ANT-102-02	340180				
	K. BACA	\$504.00	\$52.00	\$0.00	\$556.00	
	Online textbook provided first day of class.					

### 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

OC LCT	ANT-103-01	336106	TTH		10-11:50 AM	
	K. BACA	\$504.00	\$52.00	\$0.00	\$556.00	
	Online textbook provided first day of class.					
ONL LCT	ANT-103-02	338066				
	K. BACA	\$504.00	\$52.00	\$0.00	\$556.00	
	Online textbook provided first day of class.					

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

**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

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).  
 Required: Student Petition.

Corequisites: CWE-281

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

oc	ANT-280-01	336110				
	K. BACA	\$756.00	\$78.00	\$45.00	\$879.00V	

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

## Art

### ART-100B CERAMIC TECHNIQUES, 1 CREDIT

Various topics will introduce techniques in clay construction, kiln construction, firing methods, glazing and/or ceramic methods. Students will create and fire work using clay and/or clay materials. Historical and contemporary ideas related to ceramics may be presented and discussed.

oc	ART-100B-01	339917	F		1-4:30 PM	
			SU		10-5:00 PM	
			S		12:30 -4:30 PM	
			S		1:30 -4:30 PM	
	C. BASKIN	\$126.00	\$13.00	\$50.00	\$189.00	

Focus on Soda Kiln Firing. Meets: 4/5-5/9.

### 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	336283				
	C. SIEGFRIED	\$378.00	\$39.00	\$6.00	\$423.00	

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

This course acquaints students with the elements and principles of design and basic color theory. Students develop compositional and analytical skills through projects and critiques. Students examine historical and contemporary issues and ideas related to visual composition and design across multiple fields of expression.

OC LCT	ART-115-01	336284	MW		1-3:50 PM	
	C. SIEGFRIED	\$504.00	\$52.00	\$80.00	\$636.00	
OC LCT	ART-115-02	336289	TTH		1-3:50 PM	
	R. KALMAN	\$504.00	\$52.00	\$80.00	\$636.00	

### ART-117 BASIC DESIGN: 3-DIMENSIONAL COMPOSITION, 4 CREDITS

Examine the elements of form, space, and structure. Create works of art using various processes. Examine historical and contemporary issues and ideas relating to sculpture and 3-dimensional design.

OC LCT	ART-117-01	336291	MW		9-11:50 AM	
	K. SIMMONS	\$504.00	\$52.00	\$80.00	\$636.00	

### ART-120 CREATIVITY/IDEATION, 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	

Have a great idea, want to further explore your ideas and creativity? Experience the process of generating ideas and developing creative problem-solving strategies. This course includes experimentation, collaboration, non-traditional methods and psychological aspects of creating and synthesizing ideas. This course is not just for artists, it is for everyone who wants to develop an idea.

OC HYB LCT	<b>ART-120-01</b>	<b>336295 W</b>			<b>1-2:50 PM</b>	
	N. BRODNICKI	\$252.00	\$26.00	\$32.00		\$310.00

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

This course introduces students to basic skills, drawing tools, materials, techniques, and elements of composition; line, shape, and value. Projects will involve observational drawings of still lifes, landscapes, and the figural form. Assignments include drawings, assigned readings, video clips, and group critiques. Historical and contemporary issues of drawing will be examined.

ONL LCT	<b>ART-131-01</b>	<b>336296</b>				
	A. SCHROER	\$504.00	\$52.00	\$80.00		\$636.00
	Required: Pick up supplies on campus 4/2, 11:00-1:00pm.					
OC LCT	<b>ART-131-02</b>	<b>336297 MW</b>			<b>9-11:50 AM</b>	
	R. KALMAN	\$504.00	\$52.00	\$80.00		\$636.00
OC LCT	<b>ART-131-03</b>	<b>336299 MW</b>			<b>1-3:50 PM</b>	
	R. KALMAN	\$504.00	\$52.00	\$80.00		\$636.00

**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	<b>ART-161-01</b>	<b>339913 TTH</b>			<b>1-3:50 PM</b>	
	C. GIFFEN	\$504.00	\$52.00	\$150.00		\$706.00

**ART-162 PHOTOGRAPHY II, 4 CREDITS**

This course is the second of a sequence of three darkroom photography courses. This course explores camera operation and darkroom processes in developing and printing film. Photography II explores the photo processes and elements of composition, content, and historical/contemporary references at an intermediate level.

**Prerequisites:** ART-161

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

oc	<b>ART-162-01</b>	<b>339914 TTH</b>			<b>1-3:50 PM</b>	
	C. GIFFEN	\$504.00	\$52.00	\$150.00		\$706.00

**ART-206 HISTORY OF ART/ENLIGHTENMENT THROUGH CONTEMPORARY, 4 CREDITS**

Examines art, culture, and history from the Enlightenment through the current century. This is a broad overview of art history that promotes an understanding of art and its history through readings, discussion, papers and exams.

**Recommended Prerequisites:** WR-121Z

ONL LCT	<b>ART-206-01</b>	<b>335827</b>				
	J. SIMONE	\$504.00	\$52.00	\$21.00		\$577.00

**ART-233 DRAWING FOR COMICS, 4 CREDITS**

Introduces basic drawing skills, drawing tools, materials, techniques, elements of composition; line, gesture, color and value. Projects will involve drawing with a focus on sequential imagery, comics and graphic style. Assignments include drawing, assigned readings and group critiques of drawing projects. This course emphasizes composition, expression and text-related imagery.

OC LCT	<b>ART-233-01</b>	<b>336309 TTH</b>			<b>9-11:50 AM</b>	
	D. ANDERSEN	\$504.00	\$52.00	\$80.00		\$636.00

**Prerequisites:** ART-131 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	

Introduces basic drawing skills, drawing tools, materials, techniques, elements of composition; line, gesture, color and value. Projects will involve drawing with a focus on sequential imagery, comics and graphic style. Assignments include drawing, assigned readings and group critiques of drawing projects. This course emphasizes composition, expression and text-related imagery.

OC LCT	<b>ART-233-01</b>	<b>336309 TTH</b>			<b>9-11:50 AM</b>	
	D. ANDERSEN	\$504.00	\$52.00	\$80.00		\$636.00

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

This course provides a broad general introduction to fundamental ceramic skills and experience, with assignments that 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>	<b>336313 TTH</b>			<b>1-3:50 PM</b>	
	N. BRODNICKI	\$504.00	\$52.00	\$79.00		\$635.00
OC LCT	<b>ART-250-02</b>	<b>336318 TTH</b>			<b>6-8:50 PM</b>	
	N. WARRENS	\$504.00	\$52.00	\$79.00		\$635.00

**ART-252 CERAMICS/WHEEL-THROWING I, 4 CREDITS**

This course is an introduction to ceramic wheel-throwing methods through the creation of functional and artistic forms to develop fundamental skills and clay experience and foster artistic growth. Students are introduced to glazing and firing methods. Students research the history of ceramics and its connection to culture and society.

OC LCT	<b>ART-252-01</b>	<b>336320 TTH</b>			<b>9-11:50 AM</b>	
	N. BRODNICKI	\$504.00	\$52.00	\$79.00		\$635.00

**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>	<b>336323 TTH</b>			<b>1-3:50 PM</b>	
	N. BRODNICKI	\$504.00	\$52.00	\$79.00		\$635.00
OC LCT	<b>ART-253-02</b>	<b>336326 TTH</b>			<b>6-8:50 PM</b>	
	N. WARRENS	\$504.00	\$52.00	\$79.00		\$635.00

**ART-255 CERAMICS/WHEEL-THROWING II, 4 CREDITS**

This course continues the development of ceramic wheel-throwing methods through the creation of functional and artistic forms to develop skills and clay experience and foster artistic growth. Students explore glazing and firing methods. Students also examine the history of wheel thrown ceramics and its connection to culture and society.

**Prerequisites:** ART-252 or Student Petition

OC LCT	<b>ART-255-01</b>	<b>336328 TTH</b>			<b>9-11:50 AM</b>	
	N. BRODNICKI	\$504.00	\$52.00	\$79.00		\$635.00

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

**Campus Locations:**  
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**Distance Education Notification:**  
**ONL:** Online Only  
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**HYB:** In-person plus online work

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**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 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>	<b>336330 TTH</b>			<b>9-11:50 AM</b>	
	J. IJIMA	\$504.00	\$52.00	\$80.00		\$636.00

**ART-258 METALSMITHING/JEWELRY: INTERMEDIATE, 4 CREDITS**

This course continues the study of applied design principles in metalsmithing and jewelry-making, with an emphasis on creating original designs. Students will learn more advanced technical processes and engage in discussions about the relationship between jewelry/art metal and different fields. Students who aspire to pursue a career in the jewelry and metalsmithing trades will receive practical guidelines to help them achieve their goals.

**Prerequisites:** ART-257

oc	<b>ART-258-01</b>	<b>339916 TTH</b>			<b>9-11:50 AM</b>	
	J. IJIMA	\$504.00	\$52.00	\$80.00		\$636.00

**ART-261 PHOTOGRAPHY III, 4 CREDITS**

This course is the third of a sequence of three darkroom photography courses. This course explores camera operation and darkroom processes in developing and printing film. Photography III explores the photo processes and elements of composition, content, and historical/contemporary references at an advanced level.

**Prerequisites:** ART-161 and ART-162

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

oc	<b>ART-261-01</b>	<b>339915 TTH</b>			<b>1-3:50 PM</b>	
	C. GIFFEN	\$504.00	\$52.00	\$80.00		\$636.00

**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

ONL LCT	<b>ART-262-01</b>	<b>336333</b>				
	S. ELIOT	\$504.00	\$52.00	\$80.00		\$636.00

OC LCT	<b>ART-262-02</b>	<b>336336 TTH</b>			<b>9-11:50 AM</b>	
	D. OLSEN	\$504.00	\$52.00	\$80.00		\$636.00

**ART-283 PAINTING: LANDSCAPES/BEGINNING, 4 CREDITS**

Introduces basic painting tools, materials, techniques, and elements of composition, color, value and space. Projects involve observational painting with a focus on landscape and its relationship to volume and form on a two-dimensional plane. Course includes painting, readings and group critiques.

**Prerequisites:** ART-131 or Student Petition

OC LCT	<b>ART-283-01</b>	<b>336340 TTH</b>			<b>9-11:50 AM</b>	
	A. SCHROER	\$504.00	\$52.00	\$95.00		\$651.00

**ART-286 PAINTING: LANDSCAPES/INTERMEDIATE, 4 CREDITS**

Learn intermediate painting tools, materials, techniques, and elements of composition, color, value and space. Projects involve observational painting with a focus on landscape and its relationship to volume and form on a two-dimensional plane. Course includes painting, readings and group critiques.

**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	

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

OC LCT	<b>ART-286-01</b>	<b>336341 TTH</b>			<b>9-11:50 AM</b>	
	A. SCHROER	\$504.00	\$52.00	\$95.00		\$651.00

**ART-293 SCULPTURE (METAL EMPHASIS), 4 CREDITS**

The processes and concepts of sculpture including the elements of form, space and visual communication will be examined with emphasis on current issues. Use of clay and plaster in relation to metal sculpture. Welding, casting, and assemblage will be explored. Historical and contemporary ideas and aesthetic content will be examined.

OC LCT	<b>ART-293-01</b>	<b>336343 MW</b>			<b>1-3:50 PM</b>	
	K. SIMMONS	\$504.00	\$52.00	\$80.00		\$636.00

**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 LCT	<b>AB-101-01</b>	<b>336185 S</b>			<b>8-7:50 PM</b>	
	P. NESBITT	\$378.00	\$39.00	\$175.00		\$592.00
	Meets: 4/5, 4/19, 5/3, 5/17 & 6/7.					

OC LCT	<b>AB-101-02</b>	<b>336188 S</b>			<b>8-7:50 PM</b>	
	A. DANIEK	\$378.00	\$39.00	\$175.00		\$592.00
	Meets: 4/12, 4/26, 5/10, 5/31, & 6/14.					

**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. May be repeated for up to 12 credits.

OC LCT	<b>AB-105-01</b>	<b>336190 THF</b>			<b>6:30 -9:20 PM</b>	
	F. DAVIS	\$378.00	\$39.00	\$175.00		\$592.00

**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 LCT	<b>AB-112-01</b>	<b>336192 F</b>			<b>8-12:20 PM</b>	
	C. DAHLSRUD- RIVERA J. PHELPS	\$252.00	\$26.00	\$170.00		\$448.00

**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 LCT	<b>AB-113-01</b>	<b>336193 MT</b>			<b>7-12:20 PM</b>	
	M. GRIFFITH M. HOUSE	\$756.00	\$78.00	\$337.00		\$1,171.00

**AB-123 COLLISION REPAIR WELDING II, 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	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	
	Training in light gauge metal repair: Gas Metal Arc Welding (GMAW), Plasma Arc Cutting (PAC), Squeeze Type Resistance Spot Welding (ST-RSW), and other advanced welding techniques specific to collision damage repair.							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.					
	<b>Prerequisites:</b> AB-112							<b>Prerequisites:</b> AB-123					
OC LCT	<b>AB-123-01</b>	<b>336196 F</b>			<b>8-12:20 PM</b>		OC LCT	<b>AB-235-01</b>	<b>336209 F</b>			<b>8-12:20 PM</b>	
	C. DAHLSTRUD- RIVERA J. PHELPS	\$252.00	\$26.00	\$158.00	\$436.00			C. DAHLSTRUD- RIVERA J. PHELPS	\$252.00	\$26.00	\$170.00	\$448.00	
<b>AB-133</b>	<b>COLLISION REPAIR II/STRUCTURAL, 6 CREDITS</b>						<b>AB-280</b>	<b>COLLISION REPAIR/CWE, 2-6 CREDITS (VAR)</b>					
	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.							Cooperative work experience. Work-based learning experience in an auto body repair shop. Required: Student Petition.					
	<b>Prerequisites:</b> AB-113							<b>Corequisites:</b> CWE-281					
OC LCT	<b>AB-133-01</b>	<b>336199 MT</b>			<b>7-12:20 PM</b>		oc	<b>AB-280-01</b>	<b>336212</b>				
	M. GRIFFITH M. HOUSE	\$756.00	\$78.00	\$337.00	\$1,171.00			M. HOUSE	\$756.00	\$78.00	\$45.00	\$879.00V	
	Required: Student Petition. Corequisite: Take the following CWE-281-06.												
<b>AB-151</b>	<b>COLLISION REPAIR COMPUTERIZED ESTIMATING - CCC ONE, 2 CREDITS</b>						<b>ABR-125</b>	<b>COLLISION REPAIR/REFINISHING I, 6 CREDITS</b>					
	Provides detailed instruction in the use of modern computerized estimating systems in the collision repair field. Focus is on CCC ONE software.							Covers shop safety, fire prevention, selection and use of paint products, abrasives, fillers, basic application of primers, sealers, and top coats.					
	<b>Prerequisites:</b> AB-149							<b>Prerequisite or Corequisite:</b> AB-112 and AB-113					
OC LCT	<b>AB-151-01</b>	<b>336200 M</b>			<b>1:30 -5:20 PM</b>		OC LCT	<b>ABR-125-01</b>	<b>336216 WTH</b>			<b>7-12:20 PM</b>	
	A. YAGER-ROUNDS	\$252.00	\$26.00	\$154.00	\$432.00			M. GRIFFITH M. HOUSE	\$756.00	\$78.00	\$337.00	\$1,171.00	
<b>AB-222</b>	<b>COLLISION REPAIR III/ADVANCED STRUCTURAL, 6 CREDITS</b>						<b>ABR-127</b>	<b>COLLISION REPAIR/REFINISHING II, 6 CREDITS</b>					
	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.							Application of solvent and waterborne finishes, including spot repairs, color matching, complete refinishing, and problem solving. Introduction to computerized color information retrieval and mixing.					
	<b>Prerequisites:</b> AB-133							<b>Prerequisites:</b> ABR-125					
OC LCT	<b>AB-222-01</b>	<b>336202 MT</b>			<b>7-12:20 PM</b>		OC LCT	<b>ABR-127-01</b>	<b>336218 WTH</b>			<b>7-12:20 PM</b>	
	M. GRIFFITH M. HOUSE	\$756.00	\$78.00	\$337.00	\$1,171.00			M. GRIFFITH M. HOUSE	\$756.00	\$78.00	\$337.00	\$1,171.00	
<b>AB-224</b>	<b>COLLISION REPAIR IV/ADVANCED STRUCTURAL, 6 CREDITS</b>						<b>ABR-129</b>	<b>COLLISION REPAIR/REFINISHING III, 6 CREDITS</b>					
	Advanced frame and Unibody repair procedures. Electronic measurement and dimensioning, repair documentation, brakes, suspension, and alignment as they relate to collision repair.							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.					
	<b>Prerequisites:</b> AB-222							<b>Prerequisites:</b> ABR-127					
OC LCT	<b>AB-224-01</b>	<b>336204 MT</b>			<b>7-12:20 PM</b>		OC LCT	<b>ABR-129-01</b>	<b>336219 WTH</b>			<b>7-12:20 PM</b>	
	M. GRIFFITH M. HOUSE	\$756.00	\$78.00	\$337.00	\$1,171.00			M. GRIFFITH M. HOUSE	\$756.00	\$78.00	\$337.00	\$1,171.00	
<b>AB-226</b>	<b>COLLISION REPAIR V/ADVANCED STRUCTURAL, 6 CREDITS</b>						<b>ABR-225</b>	<b>PRODUCTION SHOP TECHNIQUES, 6 CREDITS</b>					
	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.							Designed for students who wish to gain additional hands-on experience in refinishing, using the most up-to-date methods and materials.					
	<b>Prerequisites:</b> AB-224							<b>Prerequisites:</b> ABR-129					
OC LCT	<b>AB-226-01</b>	<b>336205 MT</b>			<b>7-12:20 PM</b>		OC LCT	<b>ABR-225-01</b>	<b>336221 WTH</b>			<b>7-12:20 PM</b>	
	M. GRIFFITH M. HOUSE	\$756.00	\$78.00	\$337.00	\$1,171.00			M. GRIFFITH M. HOUSE	\$756.00	\$78.00	\$337.00	\$1,171.00	
<b>AB-235</b>	<b>COLLISION REPAIR WELDING III, 2 CREDITS</b>						<b>ABR-227</b>	<b>RESTORATION PRACTICES, 6 CREDITS</b>					
								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.					
	<b>Prerequisites:</b> AB-224							<b>Prerequisites:</b> ABR-225					

**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>ABR-227-01</b> 336224 WTH				7-12:20 PM	
	M. GRIFFITH		\$756.00	\$78.00	\$337.00	\$1,171.00
	M. HOUSE					

### Automotive Service Technology

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

#### AM-100 AUTOMOTIVE FUNDAMENTALS, 4 CREDITS

An introductory automotive service class intended to provide fundamental knowledge and basic experience about automobiles. The course covers automotive systems, preventive maintenance and performing basic repairs. Also covered in the course is SP2 safety and pollution prevention training, communication skills, tool identification and general automotive maintenance and repair.

OC LCT	<b>AM-100-01</b> 336226 MTWTH				1-2:50 PM	
	L. BLAHUTA		\$504.00	\$52.00	\$114.00	\$670.00

#### AM-101 INTRO TO AUTOMOTIVE SERVICE TECHNOLOGY, 2 CREDITS

This course 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 placement in WRD-090

oc	<b>AM-101-01</b> 336231 MTWTHF				1-5:50 PM	
	J. LEUCK		\$252.00	\$26.00	\$5.00	\$283.00
	Meets: 3/31-4/4.					

#### 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 LCT	<b>AM-106-01</b> 336233 S				8-4:20 PM	
	T. SHOCKLEY		\$252.00	\$26.00	\$63.00	\$341.00
	Meets: 4/12, 4/26, 5/10, 5/31, & 6/14.					

#### AM-118 SMALL ENGINE REPAIR, 4 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 LCT	<b>AM-118-01</b> 336248 THF				6-9:50 PM	
	T. CARLSON		\$504.00	\$52.00	\$121.00	\$677.00
OC LCT	<b>AM-118-02</b> 336253 MTWTH				7:30 -9:20 AM	
	L. BLAHUTA		\$504.00	\$52.00	\$121.00	\$677.00
OC	<b>AM-118-03</b> 339940 MTWTH				10-11:50 AM	
	L. BLAHUTA		\$504.00	\$52.00	\$121.00	\$677.00

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor		Tuition	Fee	Crs. Fee	
OC	<b>AM-118-03A</b> 339939 MTWTH				10-11:50 AM	
	L. BLAHUTA		\$504.00	\$52.00	\$121.00	\$677.00
	Required: Student Petition. CTE Pathways Section. For more information contact High School Connections 503-594-3161.					
OC	<b>AM-118-04</b> 339922 THF				1-4:50 PM	
	T. CARLSON		\$504.00	\$52.00	\$121.00	\$677.00
OC	<b>AM-118-04A</b> 339923 THF				1-4:50 PM	
	T. CARLSON		\$504.00	\$52.00	\$121.00	\$677.00
	Required: Student Petition. CTE Pathways Section. For more information contact High School Connections 503-594-3161.					

#### AM-135 POWER TRANSMISSION SYSTEMS, 5 CREDITS

In this course students will learn the construction, operation, service and repair of clutches, manual transmission, U-joints, drive lines, final drives, overdrive, and four wheel drives.

**Prerequisites:** MTH-020 or placement in MTH-050, and placement in WRD-090

**Recommended Prerequisites:** AM-101 with a C or better, or Student Petition

oc	<b>AM-135-01</b> 336263 MTWTH				1-5:50 PM	
	W. VAN RIPER		\$630.00	\$65.00	\$204.00	\$899.00
	Meets: 4/7-5/8.					
oc	<b>AM-135-02</b> 336266 MTWTH				1-5:50 PM	
	W. VAN RIPER		\$630.00	\$65.00	\$204.00	\$899.00
	Meets: 5/12-6/12.					

#### AM-142 ENGINE PERFORMANCE I, 5 CREDITS

This course is designed to provide students with the entry-level skills necessary to repair automobile fuel delivery and emission systems. Includes general engine diagnosis; fuel, air induction, and exhaust systems diagnosis and repair; emission control systems diagnosis and repair. Introduction to the diagnostic process, scan tools, and oscilloscopes.

**Prerequisites:** MTH-020 or placement in MTH-050, and placement in WRD-090

**Recommended Prerequisites:** AM-101 with a C or better, or Student Petition

oc	<b>AM-142-01</b> 336268 MTWTH				1-5:50 PM	
	J. LEUCK		\$630.00	\$65.00	\$211.00	\$906.00
	Meets: 4/7-5/8.					
oc	<b>AM-142-02</b> 336269 MTWTH				1-5:50 PM	
	J. LEUCK		\$630.00	\$65.00	\$211.00	\$906.00
	Meets: 5/12-6/12.					

#### AM-223 ALTERNATIVE FUELS TRANSPORTATION TECHNOLOGY, 5 CREDITS

Provides students with knowledge of theory and physical description of hybrid, Electric, Fuel cell vehicles. The student will have the opportunity to acquire practical experience in the area of diagnosing and repairing alternative fuel transportation vehicles.

**Prerequisites:** AM-129

oc	<b>AM-223-01</b> 336270 MTWTH				7-11:50 AM	
	N. ROBERTS		\$630.00	\$65.00	\$124.00	\$819.00
	Meets: 3/31-5/1.					
oc	<b>AM-223-02</b> 337983 MTWTH				7-11:50 AM	
	N. ROBERTS		\$630.00	\$65.00	\$124.00	\$819.00
	Meets: 5/5-6/5.					

#### AM-225 SAFETY SYSTEMS, 5 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	

In this course students will be introduced to existing vehicle on-board safety systems and Advanced Driver Assist Systems (ADAS) on today's vehicles. Safety systems such as Anti-lock brakes, Traction control, Air-bag systems, Stability control, and Advanced Driver Assist Systems will be explained, demonstrated, and tested.

**Prerequisites:** AM-129

oc	<b>AM-225-01</b> 336272 MTWTH D. BLACKMON		\$630.00	\$65.00	\$211.00	\$906.00
oc	<b>AM-225-02</b> 337984 MTWTH D. BLACKMON		\$630.00	\$65.00	\$211.00	\$906.00

**AM-228 SERVICE SHOP MANAGEMENT, 4 CREDITS**

Course designed to familiarize students with the responsibilities of the parts manager, service manager and service writer and the day to day responsibilities of operating a business.

**Prerequisites:** MTH-020 with a C or better, or placement in MTH-050 or higher

oc	<b>AM-228-01</b> 336276 T W. VAN RIPER		\$504.00	\$52.00	\$99.00	\$655.00
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**AM-280 AUTO MECHANICS/CWE, 1-6 CREDITS (VAR)**

Cooperative work experience. Work-related learning experience in an auto repair shop or auto dealership. Required: Student Petition.

**Corequisites:** CWE-281

oc	<b>AM-280-01</b> 336278 N. ROBERTS		\$756.00	\$78.00	\$45.00	\$879.00V

**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

ONL	<b>BI-101-40</b> 336345 E. DEBEY		\$504.00	\$52.00	\$55.00	\$611.00
ONL	<b>BI-101-41</b> 340058 E. DEBEY		\$504.00	\$52.00	\$55.00	\$611.00

**BI-101L GENERAL BIOLOGY; CELLULAR BIOLOGY LAB, 0 CREDIT**

Lab course for BI-101

**Corequisites:** BI-101

ONL	<b>BI-101L-40</b> 336347 E. DEBEY		\$0.00	\$0.00	\$0.00	\$0.00
ONL	<b>BI-101L-41</b> 340059 E. DEBEY		\$0.00	\$0.00	\$0.00	\$0.00

**BI-102 GENERAL BIOLOGY; ANIMAL SYSTEMS, 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

**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 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.

**Corequisites:** BI-102L

**Recommended Prerequisites:** MTH-060 or MTH-098 or placement in MTH-065; and WRD-098 or placement in WR-121Z

oc	<b>BI-102-01</b> 336348 MW E. DEBEY		\$504.00	\$52.00	\$55.00	\$611.00
ONL	<b>BI-102-40</b> 336350 S. SOLL		\$504.00	\$52.00	\$55.00	\$611.00
ONL	<b>BI-102-41</b> 336351 N. SEFCIKOVA		\$504.00	\$52.00	\$55.00	\$611.00

**BI-102L GENERAL BIOLOGY; ANIMAL SYSTEMS LAB, 0 CREDIT**

Lab course for BI-102

**Corequisites:** BI-102

oc	<b>BI-102L-01</b> 336353 MW E. DEBEY		\$0.00	\$0.00	\$0.00	\$0.00
ONL	<b>BI-102L-40</b> 336354 S. SOLL		\$0.00	\$0.00	\$0.00	\$0.00
ONL	<b>BI-102L-41</b> 336355 N. SEFCIKOVA		\$0.00	\$0.00	\$0.00	\$0.00

**BI-103 GENERAL BIOLOGY; PLANTS & THE ECOSYSTEM, 4 CREDITS**

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.

**Corequisites:** BI-103L

**Recommended Prerequisites:** MTH-060 or MTH-098 or placement in MTH-065; and WRD-098 or placement in WR-121Z

oc	<b>BI-103-01</b> 336357 TTH S. SOLL		\$504.00	\$52.00	\$55.00	\$611.00
oc	<b>BI-103-20</b> 336360 MW K. OSTLUND		\$504.00	\$52.00	\$55.00	\$611.00
ONL	<b>BI-103-40</b> 336362 K. OSTLUND		\$504.00	\$52.00	\$55.00	\$611.00

**BI-103L GENERAL BIOLOGY; PLANTS & THE ECOSYSTEM LAB, 0 CREDIT**

Lab course for BI-103

**Corequisites:** BI-103

oc	<b>BI-103L-01</b> 336364 TTH S. SOLL		\$0.00	\$0.00	\$0.00	\$0.00

Course No	Course Title, Credits	Section No	Instructor	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Tuition	Fee	Time	Crs. Fee	Total
OC	<b>BI-103L-20</b> 336368 MW K. OSTLUND Corequisite: Take the following BI-103-20.					\$0.00	\$0.00	7:30 -8:50 PM	\$0.00	\$0.00
ONL	<b>BI-103L-40</b> 336371 K. OSTLUND Corequisite: Take the following BI-103-40.					\$0.00	\$0.00		\$0.00	\$0.00
<b>BI-112</b>	<b>GENERAL BIOLOGY FOR HEALTH SCIENCES, 4 CREDITS</b> 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. <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									
OC	<b>BI-112-01</b> 336372 TTH J. BOWN Corequisite: Take 1 of the following BI-112L-01, BI-112L-02.					\$504.00	\$52.00	11-12:20 PM	\$55.00	\$611.00
HAR	<b>BI-112-15</b> 336375 MW P. JONES Corequisite: Take the following BI-112L-15.					\$504.00	\$52.00	9-10:20 AM	\$55.00	\$611.00
ONL	<b>BI-112-20</b> 340062 S. KELSEY Corequisite: Take the following BI-112L-20.					\$504.00	\$52.00		\$55.00	\$611.00
ONL	<b>BI-112-40</b> 336376 M. ANDURI- FLYNN Corequisite: Take the following BI-112L-40.					\$504.00	\$52.00		\$55.00	\$611.00
<b>BI-112L</b>	<b>GENERAL BIOLOGY FOR HEALTH SCIENCES LAB, 0 CREDIT</b> Lab course for BI-112 <b>Corequisites:</b> BI-112									
OC	<b>BI-112L-01</b> 336377 T J. BOWN Corequisite: Take the following BI-112-01.					\$0.00	\$0.00	1-3:50 PM	\$0.00	\$0.00
OC	<b>BI-112L-02</b> 336378 TH J. BOWN Corequisite: Take the following BI-112-01.					\$0.00	\$0.00	8-10:50 AM	\$0.00	\$0.00
HAR	<b>BI-112L-15</b> 336379 MW P. JONES Corequisite: Take the following BI-112-15.					\$0.00	\$0.00	10:30 -11:50 AM	\$0.00	\$0.00
OC	<b>BI-112L-20</b> 340063 W S. KELSEY Corequisite: Take the following BI-112-20.					\$0.00	\$0.00	6:30 -9:20 PM	\$0.00	\$0.00
ONL	<b>BI-112L-40</b> 336382 M. ANDURI- FLYNN Corequisite: Take the following BI-112-40.					\$0.00	\$0.00		\$0.00	\$0.00
<b>BI-120</b>	<b>INTRODUCTION TO HUMAN ANATOMY AND PHYSIOLOGY, 4 CREDITS</b> This course is designed to serve students as an overview introductory course to human anatomy and physiology. 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 health care. Dissection of animal tissues is required. <b>Corequisites:</b> BI-120L									
HAR	<b>BI-120-15</b> 336384 MW P. JONES Corequisite: Take the following BI-120L-15.					\$504.00	\$52.00	1-2:20 PM	\$55.00	\$611.00
<b>BI-120L</b>	<b>INTRODUCTION TO HUMAN ANATOMY AND PHYSIOLOGY LAB, 0 CREDIT</b> Lab course for BI-120 <b>Corequisites:</b> BI-120									
HAR	<b>BI-120L-15</b> 336386 MW P. JONES Corequisite: Take the following BI-120-15.					\$0.00	\$0.00	2:30 -3:50 PM	\$0.00	\$0.00
<b>BI-160</b>	<b>BIRD IDENTIFICATION &amp; TAXONOMY, 3 CREDITS</b> Lecture course introducing bird taxonomy, evolution, anatomy and physiology, identification, and behaviors. Identification techniques applied to regional birds through lectures, slides and other activities.									
OC LCT	<b>BI-160-20</b> 336387 T J. BOWN					\$378.00	\$39.00	6-8:50 PM	\$20.00	\$437.00
<b>BI-160L</b>	<b>BIRD IDENTIFICATION &amp; TAXONOMY WITH LAB, 4 CREDITS</b> Lecture course introducing bird taxonomy, evolution, anatomy and physiology, identification, and behaviors. Identification techniques applied to regional birds through lectures, slides and other activities. Includes field identification of common Oregon birds by sight, sound, and habitat. Field trips required along with online research.									
OC LCT	<b>BI-160L-20</b> 336390 T J. BOWN Field trip dates: Apr 19, May 3, and May 31.					\$504.00	\$52.00	6-8:50 PM	\$60.00	\$616.00
OC	<b>BI-160L-21</b> 336391 T J. BOWN Required: Student Petition. Field trip dates: Apr 19, May 3, and May 31.					\$504.00	\$52.00	6-8:50 PM	\$255.00	\$811.00
<b>BI-163</b>	<b>MALHEUR FIELD TRIP, 1 CREDIT</b> Four day field trip. Study of plants, animals, geology, and history of the Northern Basin and Range ecoregion at the Malheur Environmental Field Station in southeast Oregon. Required: Student Petition. <b>Required:</b> Field trip									
OFF	<b>BI-163-01</b> 336393 TBA J. BOWN S. HOOVER Required: Student Petition. Meets: 5/16-5/19/24. Field Trip to Malheur Field Station. This course is Field Trip Participation Only. Four-day field trip. Study of plants, animals, geology, and history of the Northern Basin and Range ecoregion at the Malheur Environmental Field Station in southeast Oregon. Required: Field trip.					\$126.00	\$13.00		\$250.00	\$389.00
<b>BI-213</b>	<b>GENERAL BIOLOGY FOR SCIENCE MAJORS (PLANT BIOLOGY &amp; ECOLOGY), 5 CREDITS</b> This course is the third quarter of a three-quarter sequence of a laboratory course for science majors and pre-professional students. It emphasizes an evolutionary approach to plant biology and ecology; including plant diversity, plant organ systems and their functions, photosynthesis and transpiration, productivity and energy transfer, nutrient cycles, population dynamics, ecosystems and environmental issues. <b>Corequisites:</b> BI-213L <b>Prerequisite or Corequisite:</b> CH-105 or CH-222									

**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	
OC	<b>BI-213-01</b> 336396 MW T. BLACKWELL Corequisite: Take 1 of the following BI-213L-01, BI-213L-02.		\$630.00	\$65.00	\$55.00	\$750.00	OC	<b>BI-232L-20</b> 336416 TH J. GALLEGOS Corequisite: Take the following BI-232-20.		\$0.00	\$0.00	\$0.00	\$0.00
ONL	<b>BI-213-02</b> 336397 T. BLACKWELL This section has an in-person lab requirement. Corequisite: Take 1 of the following BI-213L-01, BI-213L-02.		\$630.00	\$65.00	\$55.00	\$750.00	<b>BI-233</b> 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. <b>Prerequisites:</b> BI-232 with a C or better <b>Corequisites:</b> BI-233L						
<b>BI-213L</b>	<b>GENERAL BIOLOGY FOR SCIENCE MAJORS (PLANT BIOLOGY &amp; ECOLOGY) LAB, 0 CREDIT</b> Lab course for BI-213 <b>Corequisites:</b> BI-213						OC	<b>BI-233-01</b> 336418 M M. PATTERSON Corequisite: Take the following BI-233L-01.		\$504.00	\$52.00	\$55.00	\$611.00
OC	<b>BI-213L-01</b> 336398 TH T. BLACKWELL Corequisite: Take 1 of the following BI-213-01, BI-213-02.		\$0.00	\$0.00	\$0.00	\$0.00	HAR HYB	<b>BI-233-15</b> 336427 T M. PATTERSON Corequisite: Take the following BI-233L-15.		\$504.00	\$52.00	\$55.00	\$611.00
OC	<b>BI-213L-02</b> 336399 TH T. BLACKWELL Corequisite: Take 1 of the following BI-213-01, BI-213-02.		\$0.00	\$0.00	\$0.00	\$0.00	OC HYB	<b>BI-233-20</b> 336425 M B. KOP Corequisite: Take the following BI-233L-20.		\$504.00	\$52.00	\$55.00	\$611.00
<b>BI-231</b>	<b>HUMAN ANATOMY &amp; PHYSIOLOGY I, 4 CREDITS</b> 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. <b>Prerequisites:</b> 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 <b>Corequisites:</b> BI-231L						<b>BI-233L</b> HUMAN ANATOMY & PHYSIOLOGY III LAB, 0 CREDIT Lab course for BI-233 <b>Corequisites:</b> BI-233						
OC HYB	<b>BI-231-01</b> 336400 M B. KOP Corequisite: Take 1 of the following BI-231L-01, BI-231L-02.		\$504.00	\$52.00	\$55.00	\$611.00	OC	<b>BI-233L-01</b> 336428 M M. PATTERSON Corequisite: Take the following BI-233-01.		\$0.00	\$0.00	\$0.00	\$0.00
<b>BI-231L</b>	<b>HUMAN ANATOMY &amp; PHYSIOLOGY I LAB, 0 CREDIT</b> Lab course for BI-231 <b>Corequisites:</b> BI-231						HAR	<b>BI-233L-15</b> 336435 TH M. PATTERSON Corequisite: Take the following BI-233-15.		\$0.00	\$0.00	\$0.00	\$0.00
OC	<b>BI-231L-01</b> 336404 M M. PATTERSON Corequisite: Take the following BI-231-01.		\$0.00	\$0.00	\$0.00	\$0.00	OC	<b>BI-233L-20</b> 336433 W J. GALLEGOS Corequisite: Take the following BI-233-20.		\$0.00	\$0.00	\$0.00	\$0.00
OC	<b>BI-231L-02</b> 340218 W TBA Corequisite: Take the following BI-231-01.		\$0.00	\$0.00	\$0.00	\$0.00	<b>BI-234</b> 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. <b>Prerequisites:</b> BI-101, BI-112 or BI-211; and CH-104, CH-112 or CH-221 <b>Corequisites:</b> BI-234L						
<b>BI-232</b>	<b>HUMAN ANATOMY &amp; PHYSIOLOGY II, 4 CREDITS</b> Lab course covering structure and function of the muscular, cardiovascular, lymphatic, and respiratory systems. Animal organ dissection required. <b>Prerequisites:</b> BI-231 with a C or better <b>Corequisites:</b> BI-232L						OC LCT	<b>BI-234-01</b> 336436 TTH S. SOLL Corequisite: Take the following BI-234L-01.		\$504.00	\$52.00	\$55.00	\$611.00
OC HYB	<b>BI-232-01</b> 336408 T B. KOP Corequisite: Take the following BI-232L-01.		\$504.00	\$52.00	\$55.00	\$611.00	OC	<b>BI-234-20</b> 336439 TTH M. PLUMMER Corequisite: Take the following BI-234L-20.		\$504.00	\$52.00	\$55.00	\$611.00
OC HYB	<b>BI-232-20</b> 336412 T B. KOP Corequisite: Take the following BI-232L-20.		\$504.00	\$52.00	\$55.00	\$611.00	ONL	<b>BI-234-40</b> 336440 A. KAPILA Corequisite: Take the following BI-234L-40.		\$504.00	\$52.00	\$170.00	\$726.00
<b>BI-232L</b>	<b>HUMAN ANATOMY &amp; PHYSIOLOGY II LAB, 0 CREDIT</b> Lab course for BI-232 <b>Corequisites:</b> BI-232						<b>BI-234L</b> INTRODUCTORY MICROBIOLOGY LAB, 0 CREDIT Lab course for BI-234 <b>Corequisites:</b> BI-234						
OC	<b>BI-232L-01</b> 336413 TH J. GALLEGOS Corequisite: Take the following BI-232-01.		\$0.00	\$0.00	\$0.00	\$0.00	OC	<b>BI-234L-01</b> 336441 TTH S. SOLL Corequisite: Take the following BI-234-01.		\$0.00	\$0.00	\$0.00	\$0.00

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Instructor	Tuition	Fee	Crs. Fee			
OC	<b>BI-234L-20 336444 TTH</b> M. PLUMMER Corequisite: Take the following BI-234-20.				<b>7:30 -8:50 PM</b>	\$0.00
ONL	<b>BI-234L-40 336446</b> A. KAPILA Corequisite: Take the following BI-234-40.					\$0.00

## Business Administration

### BA-101Z INTRODUCTION TO BUSINESS, 4 CREDITS

Presents an integrated view of both established and entrepreneurial businesses by studying their common characteristics and processes in a global context. Introduces theory and develops basic skills in the areas of accounting, finance, management, and marketing, with an emphasis on social responsibility and ethical practices. Explores how businesses can create value for themselves and society by addressing environmental and social challenges.

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

OC	<b>BA-101Z-01 336294 MW</b> J. EICHENBERGER	\$504.00	\$52.00	\$5.00	<b>10-11:50 AM</b>	\$561.00
OC HYB	<b>BA-101Z-02 336298 W</b> J. EICHENBERGER	\$504.00	\$52.00	\$5.00	<b>1-2:50 PM</b>	\$561.00
ONL	<b>BA-101Z-03 336300</b> S. PARKER	\$504.00	\$52.00	\$5.00		\$561.00
ONL LCT	<b>BA-101Z-04 336301</b> B. FORNEY	\$504.00	\$52.00	\$5.00		\$561.00
REM	<b>BA-101Z-05 336302 W</b> K. HEINIG Online textbook included in section fees.	\$504.00	\$52.00	\$48.75	<b>6-7:20 PM</b>	\$604.75

### 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

ONL	<b>BA-104-01 336307</b> J. AMAN Online textbook included in section fees.	\$378.00	\$39.00	\$82.87		\$499.87
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### 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 Prerequisites:** Placement in MTH-020

OC	<b>BA-111-01 336308 T</b> J. SAN-CLAIRE Online textbook included in section fees.	\$378.00	\$39.00	\$114.99	<b>9-11:50 AM</b>	\$531.99
ONL	<b>BA-111-02 336310</b> J. SAN-CLAIRE Online textbook included in section fees.	\$378.00	\$39.00	\$114.99		\$531.99

### BA-112 GENERAL ACCOUNTING II, 4 CREDITS

#### Campus Locations:

**HAR:** Harmony Community Campus  
**OC:** Oregon City Campus  
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#### ESPAÑOL: Enseñado en español

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Instructor	Tuition	Fee	Crs. Fee			
	Provides a more in-depth look at general accounting principles and practices for small business. Topics include payroll, recording bad debt, notes receivable and payable, inventory adjustment, and long-term asset valuation. Accounting practices for partnerships and manufacturing structures are examined, and financial analysis is introduced as a tool for evaluating the health and wealth of a business.					

**Prerequisites:** BA-111 or BA-211Z

**Prerequisite or Corequisite:** BA-131 or some knowledge of Excel

OC HYB	<b>BA-112-01 336311 W</b> J. SAN-CLAIRE Online textbook included in section fees.	\$504.00	\$52.00	\$114.99	<b>9-11:50 AM</b>	\$670.99
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### BA-119 PROJECT MANAGEMENT PRACTICES, 2 CREDITS

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	<b>BA-119-01 336312</b> C. PLOWMAN	\$252.00	\$26.00	\$0.00		\$278.00
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### 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 336314</b> S. RAHN	\$504.00	\$52.00	\$0.00		\$556.00
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### 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 336315</b> S. RAHN	\$630.00	\$65.00	\$0.00		\$695.00
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### BA-127 PROJECT MANAGEMENT: AGILE & CHANGE MANAGEMENT, 4 CREDITS

This course introduces students to the basic concepts and principles of Agile and Change Management. Students explore the foundation of the Agile approach for managing projects, the Agile Manifesto and Agile principles & values. Students work in small teams to experience an Agile project team environment. Value-driven delivery and adaptive project planning are defined. Students will gain an understanding in how being agile in business practices can ease the implementation of organizational change. This course will also instruct students in how to identify what drives organizational change and how to lead & communicate through change. Students will learn about creating and sustaining an organizational culture for change and moving forward.

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>Prerequisites:</b> BA-120 and BA-125							ONL LCT	<b>BA-205-01</b>	<b>336329</b>	C. CHATTERTON	\$504.00	\$52.00	\$5.00	\$561.00
ONL	<b>BA-127-01</b>	<b>336316</b>					<b>BA-206</b>	<b>MANAGEMENT FUNDAMENTALS, 4 CREDITS</b>						
	S. RAHN		\$504.00	\$52.00	\$0.00	\$556.00		Concepts and theories of management with focus on planning, organizing, leading, and controlling. Decision making, planning principles, global management, managing people and teams, effective communication, and motivation are included.						
<b>BA-131</b>	<b>INTRODUCTION TO BUSINESS COMPUTING, 4 CREDITS</b>						<b>Prerequisites:</b>	WRD-090 or placement in WRD-098						
	Introductory course using Microsoft Word, Excel, Access, and PowerPoint applications to create business documents.						<b>Recommended Prerequisites:</b>	BA-101Z and BA-251						
	<b>Required:</b> 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						ONL	<b>BA-206-01</b>	<b>336331</b>	S. PARKER	\$504.00	\$52.00	\$0.00	\$556.00
	<b>Recommended Prerequisites:</b> WRD-090 or placement in WRD-098						<b>BA-207</b>	<b>PREPPING FOR BUSINESS SUCCESS, 4 CREDITS</b>						
OC HYB	<b>BA-131-01</b>	<b>336319 TH</b>				<b>10-11:50 AM</b>		This courses introduces the CTE student (This course is ONLY being offered to Horticulture students for the Spring 2024 term) to the business practices necessary in conducting business within the scope of a specific CTE program. Students evaluate the business skills, traits, and commitment necessary to plan and operate a successful business venture. Students also learn how to evaluate small business opportunities, develop necessary business skills, and understand the resources necessary to start and manage a successful business.						
	F. MEYERS		\$504.00	\$52.00	\$130.00	\$686.00		<b>Recommended Prerequisites:</b>	At least one Horticulture course within the Horticulture program					
	Office 2021 version is used. Online textbook included in section fees.						OC HYB LCT	<b>BA-207-01</b>	<b>336334 W</b>			<b>1-2:30 PM</b>		
OC HYB	<b>BA-131-02</b>	<b>336321 W</b>				<b>10-11:50 AM</b>		C. CHATTERTON	\$504.00	\$52.00	\$0.00	\$556.00		
	F. MEYERS		\$504.00	\$52.00	\$130.00	\$686.00		Class meets on April 2, 16, 30 and May 14, 28; additional work assigned and completed in Moodle.						
	Office 2021 version is used. Online textbook included in section fees.						<b>BA-211Z</b>	<b>PRINCIPLES OF FINANCIAL ACCOUNTING, 4 CREDITS</b>						
REM	<b>BA-131-03</b>	<b>336322 M</b>				<b>6-8:20 PM</b>		Imparts an understanding of the purpose of accounting, common financial statement items, and the principles of internal controls. Focuses on recording the impact of economic events on account balances using U.S. Generally Accepted Accounting Principles, and the creation and analysis of financial statements to aid in external decision making.						
	J. AMAN		\$504.00	\$52.00	\$130.00	\$686.00		<b>Prerequisites:</b>	BA-101Z and BA-131					
	Office 2021 version is used. Online textbook included in section fees.							<b>Recommended Prerequisites:</b>	BA-111, and MTH-050 or higher					
ONL	<b>BA-131-04</b>	<b>336324</b>					OC HYB	<b>BA-211Z-01</b>	<b>336335 T</b>			<b>1-3:50 PM</b>		
	K. HEINIG		\$504.00	\$52.00	\$130.00	\$686.00		I. SETO	\$504.00	\$52.00	\$60.00	\$616.00		
	Office 2021 version is used. Online textbook included in section fees.							Online textbook included in section fees.						
ONL	<b>BA-131-05</b>	<b>336325</b>					ONL	<b>BA-211Z-02</b>	<b>336337</b>					
	D. HEINIG		\$504.00	\$52.00	\$130.00	\$686.00		K. JANICKI	\$504.00	\$52.00	\$60.00	\$616.00		
	Office 2021 version is used. Online textbook included in section fees.							Online textbook included in section fees.						
ONL	<b>BA-131-06</b>	<b>339950</b>					<b>BA-213Z</b>	<b>PRINCIPLES OF MANAGERIAL ACCOUNTING, 4 CREDITS</b>						
	D. HEINIG		\$504.00	\$52.00	\$130.00	\$686.00		Builds an understanding of the role of managerial accounting in a business, focusing on the development and use of information to evaluate production costs and operational performance in support of short- and long-term organizational decision-making.						
	Office 2021 version is used. Online textbook included in section fees.							<b>Prerequisites:</b>	BA-211Z with a C or better					
<b>BA-177</b>	<b>PAYROLL ACCOUNTING, 3 CREDITS</b>						OC HYB	<b>BA-213Z-01</b>	<b>336339 M</b>			<b>1-3:50 PM</b>		
	This course introduces the student to the basic payroll procedures and transactions that are necessary for recording business transactions that compensate personnel. Included in this introduction are wage, salary, and commission or bonus computation and recording, as well as coverage of the federal laws that affect payroll, taxation, and payroll deductions.							I. SETO	\$504.00	\$52.00	\$118.78	\$674.78		
	<b>Prerequisites:</b> BA-111 or BA-211Z							Online textbook included in section fees.						
	<b>Recommended Prerequisites:</b> BA-131 or some knowledge of Excel						ONL	<b>BA-213Z-02</b>	<b>339951</b>					
ONL	<b>BA-177-01</b>	<b>336327</b>						J. SAN-CLAIRE	\$504.00	\$52.00	\$118.78	\$674.78		
	I. SETO		\$378.00	\$39.00	\$118.78	\$535.78		Online textbook included in section fees.						
	Online textbook included in section fees.						<b>BA-216</b>	<b>COST ACCOUNTING, 4 CREDITS</b>						
<b>BA-205</b>	<b>BUSINESS COMMUNICATIONS WITH TECHNOLOGY, 4 CREDITS</b>													
	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.													
	<b>Recommended Prerequisites:</b> BA-131 and WR-121Z													

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**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	

Cost accounting extends the content of BA-213Z, which focused on managerial accounting. Specifically, job order and process costing are examined in depth, including: variances and cost estimations; standard and variable costing in the manufacturing environment; inventory and capacity analysis; customer-profitability analysis; spoilage, rework and scrap; and performance measurement.

**Prerequisites:** BA-213Z

ONL	<b>BA-216-01</b>	<b>339952</b>				
	T. FRANK		\$504.00	\$52.00	\$114.98	\$670.98
	Online textbook included in section fees.					

**BA-217 BUDGETING FOR MANAGERS, 3 CREDITS**

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, sales forecasts, and cost behavior.

**Prerequisites:** BA-211Z

**Recommended Prerequisites:** BA-213Z or some experience in budgeting

ONL LCT	<b>BA-217-01</b>	<b>336342</b>				
	T. FRANK		\$378.00	\$39.00	\$5.00	\$422.00

**BA-218 PERSONAL FINANCE, 4 CREDITS**

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.

**Prerequisites:** BA-104 or MTH-050 or higher, and WRD-098

ONL	<b>BA-218-01</b>	<b>336344</b>				
	S. PARKER		\$504.00	\$52.00	\$0.00	\$556.00

**BA-223 PRINCIPLES OF MARKETING, 4 CREDITS**

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.

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

ONL LCT	<b>BA-223-01</b>	<b>336346</b>				
	S. PARKER		\$504.00	\$52.00	\$5.00	\$561.00

**BA-224 HUMAN RESOURCE MANAGEMENT, 4 CREDITS**

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-224-01</b>	<b>336349</b>				
	M. MOISO		\$504.00	\$52.00	\$44.00	\$600.00
	Online textbook included in section fees.					

**BA-226 BUSINESS LAW I, 4 CREDITS**

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.

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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	

ONL	<b>BA-226-01</b>	<b>336352</b>				
	M. MOISO		\$504.00	\$52.00	\$49.62	\$605.62
	Online textbook included in section fees.					

**BA-228 COMPUTERIZED ACCOUNTING, 3 CREDITS**

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.

**Prerequisites:** BA-111 or BA-211Z

ONL LCT	<b>BA-228-01</b>	<b>336356</b>				
	T. FRANK		\$378.00	\$39.00	\$39.00	\$456.00
	Online textbook included in section fees.					

**BA-229 EMPLOYMENT LAW, 4 CREDITS**

Comprehensive treatment of federal and state employment law and its impact on the Human Resource Manager and Human Resource Management practices.

ONL	<b>BA-229-01</b>	<b>336358</b>				
	M. MOISO		\$504.00	\$52.00	\$49.61	\$605.61
	Online textbook included in section fees.					

**BA-238 SALES, 4 CREDITS**

Professional consultative selling techniques and how professional selling fits into a comprehensive marketing program as well as daily life. Interactive exercises will be used throughout the course that emphasize face-to-face communication skills and relationship building.

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

REM	<b>BA-238-01</b>	<b>336359 TTH</b>				<b>10-11:50 AM</b>
	J. EICHENBERGER		\$504.00	\$52.00	\$5.00	\$561.00

**BA-240 INTRODUCTION TO FINANCIAL MANAGEMENT, 4 CREDITS**

In this course, you will build upon knowledge obtained from BA-211Z to comprehend the process and practice of corporate financial management. Purchasing capital assets and undertaking projects require sound decision-making and management of risk, as well as a solid understanding of the time value of money. In this course, you will delve into discounted cash flow analysis for stocks and bonds, capital budgeting, the cost of capital, and effective corporate financial planning. Both theoretical and practical, our focus is on decisions that are made by the corporate financial manager.

**Prerequisites:** BA-211Z

OC HYB	<b>BA-240-01</b>	<b>336361 M</b>				<b>4-5:50 PM</b>
	J. AMAN		\$504.00	\$52.00	\$117.48	\$673.48
	Online textbook included in section fees. Class meets on-campus, Monday, March 31st from 4:00-5:00 pm. All other work is assigned and completed online.					

**BA-250 SMALL BUSINESS MANAGEMENT, 4 CREDITS**

Focuses on entrepreneurship and small business management from business concept development to new business launch and key steps in between. Students integrate knowledge and skills from prior business coursework to create a substantive business plan or other projects that reinforce essential entrepreneurship and small business management concepts that are associated with this course. Students should take this course in the final year of their academic program(s).

**Prerequisites:** BA-101Z, BA-119, BA-131, BA-206, BA-213Z, BA-223, BA-224, and WR-121Z. Student Petition required for non-Business AAS students



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>BA-250-01</b> 336363 S. PARKER		\$504.00	\$52.00	\$78.00	\$634.00
Online textbook included in section fees.						

**BA-254 BASIC COMPENSATION & BENEFITS, 4 CREDITS**

Covers wages, salary benefits, and plans with a primary focus on designing an effective and strategic comprehension and benefit program within an organization. Covers general compensation topics, terminology, and practical applications to the workplace.

ONL	<b>BA-254-01</b> 336365 M. MOISO		\$504.00	\$52.00	\$44.00	\$600.00
Online textbook included in section fees.						

**BA-255 GOVERNMENTAL AND NONPROFIT ACCOUNTING, 4 CREDITS**

Build upon knowledge obtained from financial accounting coursework to comprehend and gain practice in the specialized area of accounting for governmental and nonprofit entities. Topics include fund types, budgetary and expenditure controls, and modified accrual accounting.

**Prerequisites:** BA-211Z

**Recommended Prerequisites:** BA-112 and BA-213Z

ONL	<b>BA-255-01</b> 336366 J. SAN-CLAIRE		\$504.00	\$52.00	\$123.98	\$679.98
Online textbook included in section fees.						

**BA-261 CONSUMER BEHAVIOR, 4 CREDITS**

Seeks to understand how and why people make consumption decisions then apply this understanding to marketing strategies. Concepts of the consumer decision-making process, personal and interpersonal factors and their impact on consumer decisions are major components.

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

ONL	<b>BA-261-01</b> 336367 J. EICHENBERGER		\$504.00	\$52.00	\$5.00	\$561.00
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**BA-264 PROJECT MANAGEMENT TOOLS, 3 CREDITS**

This course introduces students to three tools used in managing projects: Microsoft Teams, Microsoft Planner, and Microsoft Project. Students examine the criteria for selecting the right project management tool for task management, work management, and project management. Students learn how to use these tools for communicating and collaborating with project team members and stakeholders; planning a project, adding project tasks, assigning resources and costs; building a project schedule, moving tasks to different phases, tracking project progress, and properly closing out a project. Students will also gain an understanding of how to share project information across applications using dashboards and reports. In addition, students will briefly explore cloud-based options as alternative project management tools.

**Prerequisites:** BA-120

ONL	<b>BA-264-01</b> 336369 S. RAHN		\$378.00	\$39.00	\$0.00	\$417.00
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**BA-268 APPLIED PROJECT DEMONSTRATION, 3 CREDITS**

Students demonstrate the ability to manage a real-world project from initiation through closing. Course deliverables include project scope statement, communication management plan, risk management plan, status report with Gantt chart, and 'Lessons Learned' report and presentation. The project as well as a comprehensive exam will demonstrate knowledge acquired in prerequisite classes required for the Project Management AAS. Required: Student Petition.

**Prerequisites:** BA-120, BA-125, and BA-127

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	Instructor		Tuition	Fee	Crs. Fee	

REM	<b>BA-268-01</b> 336370 W S. RAHN		\$378.00	\$39.00	\$5.00	\$422.00
<b>6-8:20 PM</b>						
Required: Student Petition. Class meets remotely (as project teams) on zoom, Tuesdays 6:00-8:20pm. PLEASE NOTE: Once teams have been assigned, the instructor will create a schedule to meet with each team for 30 minutes during the 6:00-8:20pm course time on Tuesdays. Online coursework will also be assigned and completed online via Moodle.						

**BA-270 SOCIAL MEDIA MARKETING, 4 CREDITS**

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.

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

ONL LCT	<b>BA-270-01</b> 336373 C. CHATTERTON		\$504.00	\$52.00	\$0.00	\$556.00
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**BA-280 BUSINESS/CWE, 2-6 CREDITS**

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. May be repeated for up to 6 credits. Required: Student Petition.

**Corequisites:** CWE-281

ONL	<b>BA-280-01</b> 336374 S. PARKER		\$756.00	\$78.00	\$45.00	\$879.00V
Required: Student Petition. Corequisite: Take the following CWE-281-06.						

ONL	<b>BA-280-02</b> 336380 B. FORNEY		\$756.00	\$78.00	\$45.00	\$879.00V
Required: Student Petition. Corequisite: Take the following CWE-281-06.						

**BA-285 HUMAN RELATIONS IN BUSINESS, 4 CREDITS**

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> 336381 M. MOISO		\$504.00	\$52.00	\$48.75	\$604.75
Online textbook included in section fees.						

ONL	<b>BA-285-02</b> 336383 J. HERNANDEZ		\$504.00	\$52.00	\$48.75	\$604.75
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> 336385 S. SIMMONS		\$252.00	\$26.00	\$10.00	\$288.00
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ONL	<b>BT-120-02</b> 336388 S. SIMMONS		\$252.00	\$26.00	\$10.00	\$288.00
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	Instructor		Tuition	Fee	Crs. Fee	

**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>336389</b>				
	S. SIMMONS		\$126.00	\$13.00	\$10.00	\$149.00
ONL	<b>BT-121-02</b>	<b>336394</b>				
	S. SIMMONS		\$126.00	\$13.00	\$10.00	\$149.00

**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>336395</b>				
	S. SIMMONS		\$252.00	\$26.00	\$10.00	\$288.00
ONL	<b>BT-122-02</b>	<b>336401</b>				
	S. SIMMONS		\$252.00	\$26.00	\$10.00	\$288.00

**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	<b>BT-124-01</b>	<b>339953</b>				
	S. SIMMONS		\$378.00	\$39.00	\$10.00	\$427.00

**BT-125 BUSINESS EDITING II, 3 CREDITS**  
 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	<b>BT-125-01</b>	<b>340177</b>				
	S. SIMMONS		\$378.00	\$39.00	\$10.00	\$427.00

**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>339954</b>				
	F. MEYERS		\$378.00	\$39.00	\$119.99	\$536.99
	Office 2019 version is used. Online textbook included in section fees.					

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	Instructor		Tuition	Fee	Crs. Fee	

**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.

**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>336403</b>				
	F. MEYERS		\$378.00	\$39.00	\$119.99	\$536.99
	Office 2021 version is used. Online textbook included in section fees.					

**BT-174 MICROSOFT DIGITAL TOOLS FOR THE PROFESSIONAL, 2 CREDITS**  
 Introductory course utilizing Microsoft Office 365 digital communication and collaboration tools. The material taught in this course teaches the necessary skills required in business environments that use Outlook integrated with additional Office 365 complementary digital communication and collaboration tools.

ONL	<b>BT-174-01</b>	<b>336405</b>				
	M. SORRENTINO		\$252.00	\$26.00	\$62.50	\$340.50
	Online textbook included in section fees.					

**BT-271 ADVANCED BUSINESS PROJECTS, 4 CREDITS**  
 This is a capstone course for the Administrative Professional AAS. Students will utilize processes, tools, and techniques as used by an administrative professional managing a project or event. Students will practice oral and written communication as used in an office or business setting. In addition students will analyze information, problem solve, make decisions, establish priorities, and use time management skills in this capstone course that combines the knowledge and skills acquired in foundation administrative professional courses such as word processing, creating spreadsheets, creating databases, creating presentations; as well as document formatting, proofreading, and editing.

**Prerequisites:** BA-131, BT-120, BT-125, BT-160, BT-262, and CS-135S

ONL LCT	<b>BT-271-01</b>	<b>336406</b>				
	B. FORNEY		\$504.00	\$52.00	\$35.00	\$591.00
	Required: Student Petition.					

## 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.

**Corequisites:** CH-104L and CH-104S

**Prerequisites:** MTH-065 or MTH-098 or placement in MTH-095; and WRD-090 or placement in WRD-098

ONL	<b>CH-104-40</b>	<b>336450</b>				
	S. MCDONALD		\$630.00	\$65.00	\$50.00	\$745.00
	This section requires a face-to-face lab and seminar. Corequisite: Take the following CH-104S-40, CH-104L-40.					

**CH-104L INTRODUCTORY CHEMISTRY LAB, 0 CREDIT**  
 Lab course for CH-104

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

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Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total	Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
<b>Corequisites:</b> CH-104 and CH-104S										<b>Corequisites:</b> CH-106 and CH-106S									
OC LCT	<b>CH-104L-40</b>	<b>336456</b>	<b>TBA</b>							OC LCT	<b>CH-106L-01</b>	<b>336470</b>	<b>TBA</b>						
	TBA		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				G. BURGESS		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
	This is an open format lab and students are required to complete 3 hrs of lab work per week in DJ242 on the OR City campus. Open lab hours are Wednesdays & Fridays: 9 AM- 3PM, and Thursdays: 9 AM- 8PM. For more information contact George Burgess george.burgess@clackamas.edu Corequisite: Take the following CH-104-40, CH-104S-40.										This is an open format lab and students are required to complete 3 hrs of lab work per week in DJ242 on the OR City campus. Open lab hours are Wednesdays & Fridays: 9 AM- 3PM, and Thursdays: 9 AM- 8PM. For more information contact George Burgess george.burgess@clackamas.edu Corequisite: Take the following CH-106-01, CH-106S-01.								
<b>CH-104S INTRODUCTORY CHEMISTRY SEMINAR, 0 CREDIT</b>										<b>CH-106S INTRODUCTORY CHEMISTRY SEMINAR, 0 CREDIT</b>									
Seminar course for CH-104										Seminar course for CH-106									
<b>Corequisites:</b> CH-104 and CH-104L										<b>Corequisites:</b> CH-106 and CH-106L									
OC	<b>CH-104S-40</b>	<b>336458</b>	<b>TH</b>		<b>11-11:50 AM</b>					OC LCT	<b>CH-106S-01</b>	<b>336471</b>	<b>TH</b>		<b>1-1:50 PM</b>				
	S. MCDONALD		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				G. BURGESS		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
	Corequisite: Take the following CH-104-40, CH-104L-40.										Corequisite: Take the following CH-106-01, CH-106L-01.								
<b>CH-105 INTRODUCTORY CHEMISTRY, 5 CREDITS</b>										<b>CH-112 CHEMISTRY FOR HEALTH SCIENCES, 4 CREDITS</b>									
A lab course discussing heat; molecular and ionic interactions in solids, liquids, gases, and solutions; chemical reactions including acid-base, electron transfer, and equilibrium.										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> CH-104										<b>Corequisites:</b> CH-112L									
<b>Corequisites:</b> CH-105L and CH-105S										<b>Prerequisites:</b> MTH-065 or MTH-098 with a C or better or placement in MTH-095									
ONL	<b>CH-105-40</b>	<b>336461</b>									<b>Prerequisites:</b> WRD-090 or placement in WRD-098								
	X. DONG		\$630.00	\$65.00	\$50.00	\$745.00					<b>Recommended Corequisite:</b> BI-112								
	This section requires an in-person lab and seminar. For more information contact George Burgess george.burgess@clackamas.edu Corequisite: Take the following CH-105S-40, CH-105L-40.																		
<b>CH-105L INTRODUCTORY CHEMISTRY LAB, 0 CREDIT</b>										<b>CH-112L CHEMISTRY FOR HEALTH SCIENCES LAB, 0 CREDIT</b>									
Lab course for CH-105										Lab course for CH-112									
<b>Corequisites:</b> CH-105 and CH-105S										<b>Corequisites:</b> CH-112									
OC LCT	<b>CH-105L-40</b>	<b>336465</b>	<b>TBA</b>							OC HYB	<b>CH-112-01</b>	<b>336472</b>	<b>MW</b>		<b>10-11:20 AM</b>				
	TBA		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				N. DAS		\$504.00	\$52.00	\$50.00	\$606.00			
	This is an open format lab and students are required to complete 3 hrs of lab work per week in DJ242 on the OR City campus. Open lab hours are Wednesdays & Fridays: 9 AM- 3PM, and Thursdays: 9 AM- 8PM. For more information contact George Burgess george.burgess@clackamas.edu Corequisite: Take the following CH-105-40, CH-105S-40.										Corequisite: Take 1 of the following CH-112L-01, CH-112L-02.								
<b>CH-105S INTRODUCTORY CHEMISTRY SEMINAR, 0 CREDIT</b>										<b>CH-112-15</b>									
Seminar course for CH-105										D. PAUL \$504.00 \$52.00 \$50.00 \$606.00									
<b>Corequisites:</b> CH-105 and CH-105L										This section has an in-person lab requirement. Corequisite: Take the following CH-112L-15.									
OC LCT	<b>CH-105S-40</b>	<b>336466</b>	<b>TH</b>		<b>3-3:50 PM</b>					ONL	<b>CH-112-20</b>	<b>340060</b>							
	X. DONG		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				D. PAUL		\$504.00	\$52.00	\$50.00	\$606.00			
	Corequisite: Take the following CH-104-40, CH-104L-40.										Corequisite: Take the following CH-112L-20.								
<b>CH-106 INTRODUCTORY CHEMISTRY, 5 CREDITS</b>										<b>CH-112-20</b>									
A lab course discussing organic and biochemistry.										D. PAUL \$504.00 \$52.00 \$50.00 \$606.00									
<b>Prerequisites:</b> CH-105										Corequisite: Take the following CH-112L-20.									
<b>Corequisites:</b> CH-106L and CH-106S										<b>CH-112-40</b>									
OC	<b>CH-106-01</b>	<b>336467</b>	<b>MW</b>		<b>2-3:20 PM</b>					ONL	<b>CH-112-40</b>	<b>336476</b>							
	G. BURGESS		\$630.00	\$65.00	\$50.00	\$745.00					E. FRANCIS		\$504.00	\$52.00	\$50.00	\$606.00			
	This section requires a face-to-face lab and seminar. Corequisite: Take the following CH-106L-01, CH-106S-01.										Corequisite: Take the following CH-112L-40.								
<b>CH-106L INTRODUCTORY CHEMISTRY LAB, 0 CREDIT</b>																			
Lab course for CH-106																			

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**HYB:** In-person plus online work

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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>CH-150</b>	<b>PREPARATORY CHEMISTRY, 4 CREDITS</b>						<b>OC</b>	<b>CH-223-01</b>	<b>336503</b>	<b>MWF</b>		<b>10-10:50 AM</b>	
	One term preparatory course for students who must take the general chemistry sequence (CH-221/222/223) but have no chemistry background.							D. MYERS		\$630.00	\$65.00	\$50.00	\$745.00
	<b>Corequisites:</b> CH-150S							Corequisite: Take the following CH-223L-01, CH-223S-01.					
	<b>Prerequisites:</b> MTH-095 or placement in MTH-111Z						<b>ONL LCT</b>	<b>CH-223-40</b>	<b>336505</b>				
								J. DU BOULAY		\$630.00	\$65.00	\$50.00	\$745.00
	This section has an in-person seminar requirement.							This section has an in-person lab and seminar requirement.					
	Corequisite: Take the following CH-150S-01.							Corequisite: Take the following CH-223L-40, CH-223S-40.					
<b>CH-150S</b>	<b>PREPARATORY CHEMISTRY SEMINAR, 0 CREDIT</b>						<b>CH-223L</b>	<b>GENERAL CHEMISTRY LAB, 0 CREDIT</b>					
	Seminar course for CH-150							Lab course for CH-223					
	<b>Corequisites:</b> CH-150							<b>Corequisites:</b> CH-223 and CH-223S					
<b>OC</b>	<b>CH-150S-01</b>	<b>336487</b>	<b>TH</b>		<b>9-9:50 AM</b>		<b>OC</b>	<b>CH-223L-01</b>	<b>336507</b>	<b>TH</b>		<b>1-3:50 PM</b>	
	X. DONG		\$0.00	\$0.00	\$0.00	\$0.00		D. MYERS		\$0.00	\$0.00	\$0.00	\$0.00
	Corequisite: Take the following CH-150-01.							Corequisite: Take the following CH-223-01, CH-223S-01.					
<b>CH-222</b>	<b>GENERAL CHEMISTRY, 5 CREDITS</b>						<b>OC</b>	<b>CH-223L-40</b>	<b>336509</b>	<b>F</b>		<b>2-4:50 PM</b>	
	A lab course discussing basic concepts of chemical bonding; molecular geometry and bonding theories; gases; intermolecular forces, solids, and liquids; properties of solutions; kinetics; and chemical equilibrium.							J. DU BOULAY		\$0.00	\$0.00	\$0.00	\$0.00
	<b>Prerequisites:</b> CH-221 with a C or better							Corequisite: Take the following CH-223-40, CH-223S-40.					
	<b>Corequisites:</b> CH-222L and CH-222S						<b>CH-223S</b>	<b>GENERAL CHEMISTRY SEMINAR, 0 CREDIT</b>					
								Seminar course for CH-223					
								<b>Corequisites:</b> CH-223 and CH-223L					
<b>OC LCT</b>	<b>CH-222-01</b>	<b>336488</b>	<b>MWF</b>		<b>10-10:50 AM</b>		<b>OC</b>	<b>CH-223S-01</b>	<b>336511</b>	<b>W</b>		<b>12-12:50 PM</b>	
	S. MCDONALD		\$630.00	\$65.00	\$50.00	\$745.00		D. MYERS		\$0.00	\$0.00	\$0.00	\$0.00
	Corequisite: Take the following CH-222L-01, CH-222S-01.							Corequisite: Take the following CH-223L-01, CH-223-01.					
<b>ONL</b>	<b>CH-222-40</b>	<b>336492</b>					<b>OC</b>	<b>CH-223S-40</b>	<b>336514</b>	<b>F</b>		<b>1-1:50 PM</b>	
	D. MYERS		\$630.00	\$65.00	\$50.00	\$745.00		J. DU BOULAY		\$0.00	\$0.00	\$0.00	\$0.00
	This section requires an in-person seminar and lab.							Corequisite: Take the following CH-223-40, CH-223L-40.					
	Corequisite: Take the following CH-222L-40, CH-222S-40.						<b>CH-243</b>	<b>ORGANIC CHEMISTRY III, 5 CREDITS</b>					
								Third term of a transfer sequence meeting organic chemistry requirement for premedical, dental, veterinary, pharmacy, chiropractic medicine, chemical engineering and biology majors.					
								<b>Prerequisites:</b> CH-242					
								<b>Corequisites:</b> CH-243L and CH-243S					
<b>OC LCT</b>	<b>CH-222L-01</b>	<b>336494</b>	<b>T</b>		<b>9-11:50 AM</b>		<b>OC</b>	<b>CH-243-01</b>	<b>336516</b>	<b>MW</b>		<b>1-2:20 PM</b>	
	S. MCDONALD		\$0.00	\$0.00	\$0.00	\$0.00		E. FRANCIS		\$630.00	\$65.00	\$50.00	\$745.00
	Corequisite: Take the following CH-222-01, CH-222S-01.							Corequisite: Take the following CH-243L-01, CH-243S-01.					
<b>OC</b>	<b>CH-222L-40</b>	<b>336496</b>	<b>T</b>		<b>1-3:50 PM</b>		<b>CH-243L</b>	<b>ORGANIC CHEMISTRY III LAB, 0 CREDIT</b>					
	D. MYERS		\$0.00	\$0.00	\$0.00	\$0.00		Lab course for CH-243					
	Corequisite: Take the following CH-222-40, CH-222S-40.							<b>Corequisites:</b> CH-243 and CH-243S					
<b>CH-222S</b>	<b>GENERAL CHEMISTRY SEMINAR, 0 CREDIT</b>						<b>OC</b>	<b>CH-243L-01</b>	<b>336518</b>	<b>F</b>		<b>9-11:50 AM</b>	
	Seminar course for CH-222							E. FRANCIS		\$0.00	\$0.00	\$0.00	\$0.00
	<b>Corequisites:</b> CH-222 and CH-222L							Corequisite: Take the following CH-243-01, CH-243S-01.					
<b>OC</b>	<b>CH-222S-01</b>	<b>336498</b>	<b>TH</b>		<b>9-9:50 AM</b>		<b>CH-243S</b>	<b>ORGANIC CHEMISTRY III SEMINAR, 0 CREDIT</b>					
	S. MCDONALD		\$0.00	\$0.00	\$0.00	\$0.00		Seminar course for CH-243					
	Corequisite: Take the following CH-222-01, CH-222L-01.							<b>Corequisites:</b> CH-243 and CH-243L					
<b>OC</b>	<b>CH-222S-40</b>	<b>336500</b>	<b>W</b>		<b>2-2:50 PM</b>		<b>ONL</b>	<b>CH-243S-01</b>	<b>336520</b>				
	D. MYERS		\$0.00	\$0.00	\$0.00	\$0.00		E. FRANCIS		\$0.00	\$0.00	\$0.00	\$0.00
	Corequisite: Take the following CH-222-40, CH-222L-40.							Corequisite: Take the following CH-243L-01, CH-243-01.					
<b>CH-223</b>	<b>GENERAL CHEMISTRY, 5 CREDITS</b>						<b>College and Career Guidance</b>						
	A lab course discussing states of matter, solutions, acids and bases, electrochemistry, nuclear chemistry, and spectroscopy. Topics involving organic chemistry and biochemistry are introduced.						<b>EL-103</b>	<b>TAKING EFFECTIVE NOTES, 1 CREDIT</b>					
	<b>Prerequisites:</b> CH-222 with a C or better							Designed to help students develop effective note-taking skills. Several note-taking systems are introduced and practiced.					
	<b>Corequisites:</b> CH-223L and CH-223S							<b>Prerequisites:</b> Placement in WRD-090 or higher					

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	Instructor		Tuition	Fee	Crs. Fee			Instructor		Tuition	Fee	Crs. Fee		
ONL	<b>EL-103-13</b> 336463 B. MALONEY		\$126.00	\$13.00	\$0.00	\$139.00		Introduction to the skills and personal attributes college graduates need to live and work in a diverse world, and how these characteristics influence interpersonal relationships in everyday life. This course focuses on the identification and application of strategies to improve personal multicultural awareness.						
<b>EL-111</b>	<b>COLLEGE STUDY SKILLS, 3 CREDITS</b>													
	Emphasizes time management, listening/notetaking, testing skills/anxiety, college resources, learning styles, reading strategies, textbook reading, and concentration skills.													
	<b>Prerequisites:</b> Placement in WRD-090 or higher													
OC HYB LCT	<b>EL-111-01</b> 336464 T B. MALONEY		\$378.00	\$39.00	\$15.00	\$432.00		<b>HD-209</b> <b>JOB SEARCH SKILLS, 2 CREDITS</b>						
								Use a Job Search Plan to conduct labor market research, develop job search networking relationships, and to prepare and present applications, cover letters, resumes, interviews, and thank you notes.						
								ONL	<b>HD-161-01</b> 336586 J. CORTES		\$378.00	\$39.00	\$10.00	\$427.00
<b>HD-102</b>	<b>SERVICE LEARNING EXPERIENCE, 1-6 CREDITS</b>							oc	<b>HD-209-01</b> 336589 TH C. SIMS		\$252.00	\$26.00	\$0.00	\$278.00
	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. May be repeated for up to 6 credits. Required: Student Petition.													
ONL	<b>HD-102-01</b> 336562 J. GINSBURG		\$756.00	\$78.00	\$0.00	\$834.00V		<b>HD-222</b> <b>LEADERSHIP: MANAGING CHANGE AND CONNECTING TO COMMUNITY, 2 CREDITS</b>						
								Strengthens leadership skills with an emphasis on managing change and connecting to community. Continues exploration of aspects of emotional intelligence, such as consciousness of others, displaying empathy, and developing relationships. Includes planning, implementation and assessment of activities focused on the college community and beyond. Required for some members of CCC's Associated Student Government. Highly recommended for Peer Assistants, New Student Mentors, and work-study students in Student Services departments. Also recommended for club leaders.						
<b>HD-138</b>	<b>UNDERSTANDING AND MANAGING ANXIETY AND DEPRESSION, 3 CREDITS</b>							oc	<b>HD-222-01</b> 336592 M M. BAKER		\$0.00	\$0.00	\$0.00	\$0.00
	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.													
								REM	<b>HD-222-02</b> 336594 TH J. GINSBURG		\$0.00	\$0.00	\$0.00	\$0.00
oc	<b>HD-138-01</b> 336563 TTH J. CORTES		\$378.00	\$39.00	\$0.00	\$417.00		oc	<b>HD-222-03</b> 336597 M M. BAKER		\$252.00	\$26.00	\$0.00	\$278.00
<b>HD-140</b>	<b>CAREER EXPLORATION, 3 CREDITS</b>							REM	<b>HD-222-04</b> 336599 TH J. GINSBURG		\$252.00	\$26.00	\$0.00	\$278.00
	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> 336567 T. BOYLE- GALESTIANTZ		\$378.00	\$39.00	\$10.00	\$427.00								
<b>HD-144</b>	<b>ASSERTIVENESS, 1 CREDIT</b>													
	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.													
ONL	<b>HD-144-01</b> 340257 M. MALLATT		\$126.00	\$13.00	\$10.00	\$149.00								
<b>HD-147</b>	<b>DECISION MAKING, 1 CREDIT</b>													
	Develop and improve the personal process for making healthy, satisfying choices. The basics of decision-making and processes for making personal, social, and work choices are included. Use this class for current decision needs.													
ONL	<b>HD-147-01</b> 336577 L. MARTINEZ		\$126.00	\$13.00	\$10.00	\$149.00								
<b>HD-161</b>	<b>MULTICULTURAL AWARENESS, 3 CREDITS</b>													

Communication Studies

**COMM- 100ESZ** INTRODUCCIÓN A LA COMUNICACIÓN, 4 CREDITS

COMM-100ESZ es un curso de encuesta que ofrece una visión general de la disciplina de la comunicación que enfatiza el desarrollo de las mejores prácticas de comunicación en diferentes contextos.

OC ESPAÑOL	COMM- 100ESZ-01	339929 TTH	6-7:50 PM				
	J. CORTES			\$504.00	\$52.00	\$0.00	\$556.00

**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	COMM-100Z-01	335901 MW	3-4:50 PM				
	L. HANN			\$504.00	\$52.00	\$0.00	\$556.00
oc LCT	COMM-100Z-02	335904 TTH	10-11:50 AM				
	L. HANN			\$504.00	\$52.00	\$0.00	\$556.00
oc	COMM-100Z-03	339925 TTH	1-2:50 PM				
	L. HANN			\$504.00	\$52.00	\$0.00	\$556.00

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	Instructor		Tuition	Fee	Crs. Fee	

**COMM-111ESZ HABLANDO EN PUBLICO, 4 CREDITS**

COMM-111ESZ enfatiza el desarrollo de habilidades de comunicación al examinar y demostrar cómo la autoconciencia, la audiencia, el contenido y la ocasión influyen en la creación y entrega de discursos y presentaciones.

**Prerequisites:** WR-124ES

REM ESPAÑOL	COMM-111ESZ-01	339930	TTH		5-6:50 PM	
	A. MOSEY	\$504.00	\$52.00	\$20.00	\$576.00	

**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

**Recommended Prerequisite or Corequisite:** FYE-101

REM LCT	COMM-111Z-01	335905	MW		8-9:50 AM	
	J. SMITH	\$504.00	\$52.00	\$20.00	\$576.00	
OC LCT	COMM-111Z-02	335910	TTH		8-9:50 AM	
	K. MCCONNELL	\$504.00	\$52.00	\$20.00	\$576.00	
REM LCT	COMM-111Z-03	335912	TTH		8-9:50 AM	
	J. HULT	\$504.00	\$52.00	\$20.00	\$576.00	
OC LCT	COMM-111Z-04	335914	MW		10-11:50 AM	
	TBA	\$504.00	\$52.00	\$20.00	\$576.00	
OC LCT	COMM-111Z-05	335917	MW		10-11:50 AM	
	A. SAMBOR	\$504.00	\$52.00	\$20.00	\$576.00	
REM LCT	COMM-111Z-06	335920	MW		10-11:50 AM	
	J. SMITH	\$504.00	\$52.00	\$20.00	\$576.00	
OC LCT	COMM-111Z-07	335922	TTH		10-11:50 AM	
	K. MCCONNELL	\$504.00	\$52.00	\$20.00	\$576.00	
OC LCT	COMM-111Z-08	335924	TTH		10-11:50 AM	
	A. SAMBOR	\$504.00	\$52.00	\$20.00	\$576.00	
REM LCT	COMM-111Z-09	335926	TTH		10-11:50 AM	
	J. HULT	\$504.00	\$52.00	\$20.00	\$576.00	
OC LCT	COMM-111Z-10	335928	MW		1-2:50 PM	
	L. HANN	\$504.00	\$52.00	\$20.00	\$576.00	
OC	COMM-111Z-11	339926	TTH		1-2:50 PM	
	A. SAMBOR	\$504.00	\$52.00	\$20.00	\$576.00	
REM	COMM-111Z-12	339927	TTH		6-7:50 PM	
	J. SMITH	\$504.00	\$52.00	\$20.00	\$576.00	
HAR LCT	COMM-111Z-30	335930	TTH		1-2:50 PM	
	K. DOSS	\$504.00	\$52.00	\$20.00	\$576.00	
HAR LCT	COMM-111Z-31	335932	MW		6-7:50 PM	
	K. DOSS	\$504.00	\$52.00	\$20.00	\$576.00	

**COMM-212 MASS MEDIA & SOCIETY, 4 CREDITS**

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	Instructor		Tuition	Fee	Crs. Fee	

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

OC	COMM-212-01	335937	T		6-9:50 PM	
	M. JONES	\$504.00	\$52.00	\$10.00	\$566.00	

**COMM-218Z INTERPERSONAL COMMUNICATION, 4 CREDITS**

COMM-218Z increases the knowledge and use of competent communication skills to better understand oneself, others, and the role of communication in interpersonal relationships.

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

OC LCT	COMM-218Z-01	335940	MW		10-11:50 AM	
	J. HULT	\$504.00	\$52.00	\$0.00	\$556.00	
HAR LCT	COMM-218Z-30	335942	TTH		10-11:50 AM	
	M. WILLIAMS	\$504.00	\$52.00	\$0.00	\$556.00	

**Computer Science**

**CS-120 SURVEY OF COMPUTING, 4 CREDITS**

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.

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

ONL	CS-120-30	335949				
	M. SORRENTINO	\$504.00	\$52.00	\$20.00	\$576.00	

**CS-125H HTML & WEB SITE DESIGN, 4 CREDITS**

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.

**Prerequisites:** BA-131 or CS-120 or higher or placement into CS-125H

ONL	CS-125H-30	335952				
	M. SORRENTINO	\$504.00	\$52.00	\$20.00	\$576.00	

**CS-135DB MICROSOFT ACCESS, 3 CREDITS**

Focuses on the advanced database capabilities using a current version of Microsoft Access. Topics include design, construction, and documentation of a database management system, designing reports, forms, advanced form techniques, advanced queries, customizing tables, and creating and using an application system with macros.

**Prerequisites:** BA-131 or CS-120 or higher or placement into CS-135DB

ONL	CS-135DB-30	335957				
	D. CARINO	\$378.00	\$39.00	\$20.00	\$437.00	

**CS-135S MICROSOFT EXCEL, 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

Focuses on advanced spreadsheet capabilities using a current version of Microsoft Excel. Topics include design, construction, and documentation of spreadsheets, use of templates, multiple worksheets, complex formulas, functions and filtering, Pivot Tables, advanced chart features, sorting, database capabilities, finding data, creating subtotals, using lookup tables, finding trends and forecasting, creating and editing macros, validating data, and working with controls.

**Prerequisites:** BA-131 or CS-120 or higher or placement into CS-135S

ONL	<b>CS-135S-30</b>	<b>335959</b>				
	D. CARINO		\$378.00	\$39.00	\$20.00	\$437.00

**CS-140 INTRODUCTION TO OPERATING SYSTEMS, 4 CREDITS**

Introduction to the theory and practical foundations of the Windows, Linux/UNIX, and macOS desktop operating systems. Discussion of and practice with OS administration through installation, configuration, networking, security, and virtualization.

**Prerequisites:** CS-120 or equivalent placement

**Prerequisites:** MTH-060 or placement in MTH-065

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

OC HYB LCT	<b>CS-140-01</b>	<b>335961</b>	<b>W</b>			
			<b>M</b>			
	R. CARINO			\$504.00	\$52.00	\$20.00
	Class meets Mondays remote via Zoom from 1:00-2:50pm.					
	Class meets in-person on campus Wednesdays from 1:00-2:50pm.					

**CS-152 NETWORKING 2, 4 CREDITS**

This course focuses on switching technologies and router operations that support small-to-medium business networks. It includes wireless local area networks (WLANs) and security concepts. This course, along with CS-151 and CS-153, covers the topics of the Cisco CCNA certification exam.

**Prerequisites:** CS-151

OC HYB LCT	<b>CS-152-01</b>	<b>335963</b>	<b>T</b>			
			<b>TH</b>			
	R. CARINO			\$504.00	\$52.00	\$20.00
	Class meets Tuesdays remote via Zoom from 1:00-2:50pm.					
	Class meets in-person on campus Thursdays from 1:00-2:50pm.					

**CS-160 COMPUTER SCIENCE ORIENTATION, 4 CREDITS**

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.

**Recommended Prerequisites:** MTH-060 or placement in MTH-065

OC LCT	<b>CS-160-01</b>	<b>335965</b>	<b>TTH</b>			
	R. ALBERS			\$504.00	\$52.00	\$20.00
ONL LCT	<b>CS-160-02</b>	<b>335968</b>				
	R. ALBERS			\$504.00	\$52.00	\$20.00

**CS-162 COMPUTER SCIENCE II, 4 CREDITS**

Introduces fundamental concepts of object oriented programming and dynamic memory management. Covers objects, classes, pointers, dynamic memory allocation, linked lists, and program correctness, verification, and testing.

**Prerequisites:** CS-161

oc	<b>CS-162-01</b>	<b>335969</b>	<b>TTH</b>			
	R. ALBERS			\$504.00	\$52.00	\$20.00

**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

ONL	<b>CS-162-02</b>	<b>335970</b>				
	R. ALBERS			\$504.00	\$52.00	\$20.00
ONL	<b>CS-162-03</b>	<b>335971</b>				
	R. ALBERS			\$504.00	\$52.00	\$20.00

**CS-225 COMPUTER END USER SUPPORT, 3 CREDITS**

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.

**Prerequisites:** CS-120 or placement in CS-121 or equivalent experience

**Prerequisites:** WRD-098 or placement in WR-101 or WR-121Z

ONL	<b>CS-225-30</b>	<b>335972</b>				
	R. MCMILLEN			\$378.00	\$39.00	\$20.00

**CS-233J FRONT-END JAVASCRIPT II, 4 CREDITS**

In-depth exploration of creating dynamic front-end website designs using modern JavaScript libraries and frameworks, including jQuery. Topics covered include shortcut DOM techniques, updated looping techniques, creating animation effects, and building AJAX applications using data from provided code as well as web APIs (Google, YouTube, Imgur).

**Prerequisites:** CS-133J

OC HYB	<b>CS-233J-01</b>	<b>335975</b>	<b>W</b>			
			<b>M</b>			
	D. CARINO			\$504.00	\$52.00	\$20.00
	Class meets Mondays remote via Zoom from 10:00-11:50am. Class meets in-person on campus Wednesdays from 10:00-11:50am.					

**CS-234P PHP/MYSQL WEB DEVELOPMENT, 4 CREDITS**

Use PHP and MySQL to develop dynamic web sites for use on the Internet. Develop web sites ranging from simple online information forms to complex online applications. Introduce programming fundamentals including variables, control structures, functions and objects. Applications developed use MySQL as the backend database and will explore database connectivity, querying, and security.

**Prerequisites:** CS-125H

**Recommended Prerequisites:** CS-275

OC HYB	<b>CS-234P-01</b>	<b>335977</b>	<b>W</b>			
			<b>M</b>			
	D. CARINO			\$504.00	\$52.00	\$20.00
	Class meets Mondays remote via Zoom from 1:00-2:20pm. Class meets in-person on campus Wednesdays from 1:00-2:20pm.					

**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	<b>CS-240L-30</b>	<b>335980</b>				
	R. CARINO			\$504.00	\$52.00	\$20.00

**CS-251 DISCRETE STRUCTURES II, 4 CREDITS**

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

Continuation of the introduction to discrete structures and techniques for computing started in CS-250. The course, which is the second in the two-term sequence, aims to convey the skills in discrete mathematics that are used in the study and practice of computer science. Topics include: Logic: propositional calculus, first-order predicate calculus; Formal reasoning: natural deduction, resolution; Applications to program correctness and automatic reasoning; Introduction to algebraic structures in computing.

**Prerequisites:** CS-250

ONL	<b>CS-251-01</b>	<b>335982</b>				
	J. MILLER		\$504.00	\$52.00	\$20.00	\$576.00

**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>335983</b>				
	J. MILLER		\$504.00	\$52.00	\$20.00	\$576.00
ONL	<b>CS-260-02</b>	<b>335986</b>				
	J. MILLER		\$504.00	\$52.00	\$20.00	\$576.00

**CS-279W WINDOWS SERVER ADMINISTRATION, 4 CREDITS**

Covers the fundamentals of installing, configuring, troubleshooting, and supporting the Microsoft Windows Server operating system and network infrastructure. Topics include: installation, Active Directory, data storage, resource access, security, monitoring, and disaster recovery. This course introduces the topics of the Microsoft Installation, Storage, and Compute with Windows Server certification exam.

**Prerequisites:** CS-151 and CS-240W

ONL	<b>CS-279W-30</b>	<b>335987</b>				
	R. MCMILLEN		\$504.00	\$52.00	\$20.00	\$576.00

**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. May be repeated for up to 9 credits. Required: Student Petition.

**Corequisites:** CWE-281

ONL	<b>CS-280-01</b>	<b>335989</b>				
	J. MILLER		\$756.00	\$78.00	\$45.00	\$879.00V
	Required: Student Petition. Restricted to Computer Science students. Contact: jen.miller@clackamas.edu or 503-594-3138. Corequisite: Take the following CWE-281-05.					

**CS-297N NETWORKING CAPSTONE, 4 CREDITS**

The capstone course for the Computer & Network Administration AAS. Provides the opportunity to combine the discrete information learned from program classes together towards the completion of an enterprise-level computer project. Focus can also be placed on researching, practicing, and obtaining an industry-standard certification credential. Emphasis will be placed on project planning, timeline management, creation of training documentation, and oral presentation of completed works. Required: Student Petition.

OC LCT	<b>CS-297N-01</b>	<b>335994</b>	<b>T</b>			
			<b>TH</b>			
	R. CARINO			\$504.00	\$52.00	\$20.00
						\$576.00

**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	Cr. Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
	Instructor			Tuition	Fee	Crs. Fee

**CS-297W WEBSITE CAPSTONE, 3 CREDITS**

Provides the opportunity to function in a production design environment, work cooperatively with students from other focus areas, and research emerging website technologies. Emphasis will be placed on client interaction, project teams, and accountability, as well as the development of a professional portfolio web site or completion of a research project in an emerging web-related technology.

**Prerequisites:** CS-133J and CS-135I

OC HYB LCT	<b>CS-297W-01</b>	<b>335997</b>	<b>T</b>			
			<b>TH</b>			
	D. CARINO			\$378.00	\$39.00	\$20.00
						\$437.00
	Class meets in-person on campus Tuesdays from 10:00-11:20am. Class meets Thursdays remote via Zoom from 10:00-11:20am.					

**Computer-Aided Drafting Technology**

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

**CDT-225 ADVANCED SOLIDWORKS, 3 CREDITS**

Advanced features of SolidWorks will be discussed and problems will be worked that exemplify them. Subjects include equations, configurations, design tables and dynamics. Required: Student Petition.

**Prerequisites:** CDT-108A

REM	<b>CDT-225-01</b>	<b>336447</b>	<b>TTH</b>			
	M. ROTUNDO			\$378.00	\$39.00	\$153.75
						\$570.75
	Required: Student Petition.					

**CDT-240 REVIT FOR ARCHITECTURE, 3 CREDITS**

Introduction to the basic principles in Revit for architecture and construction. Students create floorplans using walls, doors, and windows; add furniture fixtures, curtain walls, floors, ceiling grids, and generate elevations, sections, details, and schedules directly from the model.

ONL	<b>CDT-240-01</b>	<b>336449</b>				
	M. ROTUNDO			\$378.00	\$39.00	\$0.00
						\$417.00

**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

REM	<b>CWE-281-02</b>	<b>335853</b>	<b>W</b>			
	M. LAFORCE			\$0.00	\$0.00	\$0.00
						\$0.00

**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>CWE-281-05</b> 335854 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	<b>CWE-281-06</b> 335855 J. STAPLETON		\$0.00	\$0.00	\$0.00	\$0.00

**CWE-281ES SEMINARIO EXPERIENCIA DE TRABAJO COOPERATIVO, 0 CREDIT**  
 Est curso aumenta el potencial de los estudiantes para alcanzar el éxito profesional. Se requiere petición del estudiante.

**Corequisites:** ECE-280ES

ONL ESPAÑOL	<b>CWE-281ES-01</b> 335856 B. MARRON		\$0.00	\$0.00	\$0.00	\$0.00
	Requerido: petición del estudiante.					

**Criminal Justice**

For more information on Criminal Justice, Corrections, credit for completion of D.P.S.S.T. or law enforcement academies contact Joanna Crawford at [joanna.crawford@clackamas.edu](mailto:joanna.crawford@clackamas.edu) or 503-594-6229.

**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.

ONL LCT	<b>CJA-101-01</b> 335832 T. MUSGRAVE		\$504.00	\$52.00	\$0.00	\$556.00
ONL LCT	<b>CJA-101-02</b> 335833 J. LOVELESS		\$504.00	\$52.00	\$0.00	\$556.00

**CJA-130 INTRODUCTION TO CORRECTIONS, 3 CREDITS**  
 Examines the history, organization, and development of corrections in the United States, including sentencing, incarceration, community corrections and the juvenile justice system. Reviews the use of the death penalty. Identifies trends in corrections.

ONL LCT	<b>CJA-130-01</b> 335834 J. JONES		\$378.00	\$39.00	\$0.00	\$417.00
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**CJA-200 COMMUNITY POLICING, 3 CREDITS**  
 Examines interrelationships and role expectations of agencies and public policy. Explores racial and community tension, bias-based policing, community policing, police misconduct, evidence-based policing and best practices in law enforcement.

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

HAR LCT	<b>CJA-200-01</b> 335835 M J. JONES		\$378.00	\$39.00	\$0.00	\$417.00
						1-2:20 PM

**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.

**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	

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

OC HYB LCT	<b>CJA-206-01</b> 335837 TH C. BAKER		\$378.00	\$39.00	\$0.00	\$417.00
						1-2:50 PM
						Meets: 4/3, 4/17, 5/1, 5/15, 5/29.

**CJA-213 INTERVIEW & INTERROGATION, 3 CREDITS**  
 Examines the dynamics of interviews and interrogations including common processes, approaches and techniques. Ethical, legal and psychological issues are also considered. Includes methods of how to analyze statements and behavior for deception and truthfulness.

HAR HYB	<b>CJA-213-01</b> 335840 M T. MUSGRAVE		\$378.00	\$39.00	\$0.00	\$417.00
						11-12:50 PM

**CJA-215 SEXUAL ABUSE AND HUMAN TRAFFICKING, 3 CREDITS**  
 This course will explore various aspects of sexual abuse cases and human trafficking in the state of Oregon and the U.S., including discussion of societal and historical perspectives, responses to victim trauma, sexual offenders and law enforcement response to these crimes.

HAR	<b>CJA-215-01</b> 335841 T S. HEALY		\$378.00	\$39.00	\$0.00	\$417.00
						6-8:50 PM
						Contact: scoth@clackamas.edu.

**CJA-216 IMPLICIT BIAS AND POLICING, 3 CREDITS**  
 This course explores the concept of implicit bias and the potential influence of bias in law enforcement decision-making. Provides an overview of implicit bias assessments and their limitations. Students will develop skills to recognize and take action to manage bias and identify law enforcement practices that reduce bias and positively influence community relations.

ONL LCT	<b>CJA-216-01</b> 335842 G. RONNING		\$378.00	\$39.00	\$0.00	\$417.00
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**CJA-232 CASE MANAGEMENT, 3 CREDITS**  
 Introduces case management techniques used by corrections and human services professionals in one-on-one and group contacts with clients. Explores a variety of case management materials, with an emphasis placed upon objective case planning and monitoring.

**Prerequisite or Corequisite:** HS-156 and HS-210

ONL LCT	<b>CJA-232-01</b> 335843 C. BAKER		\$378.00	\$39.00	\$0.00	\$417.00
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**CJA-250 REPORTING, RECORDING & TESTIFYING, 4 CREDITS**  
 Surveys documentation skills in criminal justice professions. Verbal, nonverbal and written forms of criminal justice related workplace communication are studied and practiced, including communicating with the public, basic interviewing, documentation, courtroom testimony, and report writing.

**Prerequisites:** WR-121Z with a C or better

HAR HYB LCT	<b>CJA-250-01</b> 335844 M T. MUSGRAVE		\$504.00	\$52.00	\$0.00	\$556.00
						9-10:50 AM

**CJA-270 CRIMINAL JUSTICE CAPSTONE, 3 CREDITS**  
 This course applies and assesses the knowledge and skills gained by students who are completing the criminal justice program. Students will complete analyses of second year criminal justice courses, will review program learning outcomes, complete and present an e-portfolio, and take an exit examination.

**Prerequisites:** CJA-170

**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 LCT	<b>CJA-270-01</b> 335845 G. RONNING		\$378.00	\$39.00	\$20.00	\$437.00

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

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

**Prerequisites:** CJA-170

**Corequisites:** CWE-281

ONL	<b>CJA-280-01</b> 335846 G. RONNING		\$756.00	\$78.00	\$45.00	\$879.00V
	Required: Student Petition. Corequisite: Take 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. May be repeated for up to 6 credits. Required: Student Petition.

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

**Corequisites:** CWE-281

ONL	<b>CJA-281-01</b> 335847 G. RONNING		\$756.00	\$78.00	\$45.00	\$879.00V
	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-106 CLINICAL PROCEDURES III, 2 CREDITS**

This course provides an in-depth knowledge of dental specialties. Advanced and expanded dental assisting functions, tray set-ups and procedures in endodontics, periodontics, oral surgery, orthodontics and pedodontics are covered. Principles and procedures for amalgam and composite polishing will also be covered. Required: Student Petition.

**Required:** Acceptance into Dental Assistant program

**Prerequisites:** DA-105 with a C or better

**Corequisites:** DA-106L

HAR	<b>DA-106-01</b> 335857 T F				12-1:50 PM 12-1:50 PM	
	K. HIATT		\$252.00	\$26.00	\$225.00	\$503.00
	Required: Student Petition. No class on Friday, 4/4 because of a field trip.					

**DA-106L CLINICAL PROCEDURES III LAB, 1 CREDIT**

This course covers advanced and expanded dental assisting procedures in dental specialties. Tray set-up, dental materials and specific specialty procedures will be covered in the following dental specialties: orthodontic, periodontics, oral surgery and endodontics. Laboratory instruction in study casts, amalgam, and composite polishing will be taught on dental manikins. Required: Student Petition.

**Required:** Acceptance into Dental Assistant program

**Prerequisites:** DA-105L with a C or better

**Corequisites:** DA-106

HAR	<b>DA-106L-01</b> 335858 F				9-11:50 AM	
	M. BUTKOVICH		\$126.00	\$13.00	\$0.00	\$139.00
	Required: Student Petition. First lab on Tuesday 4/1. No lab on Friday, 4/4 because of clinical practicum field trip to ODC.					

**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	

**DA-130 CLINICAL PRACTICUM III, 8 CREDITS**

Supervised practice and improvement of advanced clinical skills in all areas of chairside dental assisting, laboratory procedures, specialties, radiology and Expanded Functions Dental Assisting (EFDA) procedures. Students report to their assigned site three days a week, for a minimum of twenty-four hours per week, for eleven weeks. Clinical competency skills in business office procedures will also be completed in this term. Students will be responsible to meet ten hours of community service. Students will also participate in 12 seminar hours during the term. Required: Student Petition.

**Required:** Acceptance into Dental Assistant program

**Prerequisites:** DA-120 with a C or better

REM	<b>DA-130-01</b> 335860 MTW				8-4:50 PM	
	M. BUTKOVICH		\$1,008.0	\$104.00	\$250.00	\$1,362.00
	K. HIATT		0			
	Required: Student Petition. Required: Ten hours community service. Meets on Friday, April 4th for the Oregon Dental Conference.					

**DA-135 PHARMACOLOGY/MEDICAL EMERGENCIES, 2 CREDITS**

This course is an introduction to pharmacology, common drugs used in dentistry, drug agencies, regulations, and drug actions. The properties of anesthetic, topical anesthetics, and desensitizing agents will also be covered. An in-depth level knowledge of the identification, response and management of medical and dental emergencies in the dental office will be taught utilizing educational manikin simulators. Required: Student Petition.

**Required:** Acceptance into Dental Assistant program

REM	<b>DA-135-01</b> 335861 TH				9-10:50 AM	
	K. HIATT		\$252.00	\$26.00	\$50.00	\$328.00
	Required: Student Petition.					

**DA-145 DENTAL OFFICE PROCEDURES, 2 CREDITS**

This course prepares the student for basic knowledge of dental office procedures to include dental charting. Introduction of dental software, management of patient information, maintenance and retention of business records, inventory and recall systems. Written and oral communication are taught to prepare students for employment opportunities. Required: Student Petition.

**Required:** Acceptance into Dental Assistant program

ONL	<b>DA-145-01</b> 335862					
	K. HIATT		\$252.00	\$26.00	\$40.00	\$318.00
	Required: Student Petition. Meets in-person on Tuesday, 4/1 from 1-3:00.					

**Digital Media Communications**

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

Introduction to video editing skills that include logging and capturing raw video, assembly of shots on a timeline, and the use of effects in 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. The course will explore the history of editing and the theory behind various film and video editing forms. Lab component included.

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

OC HYB LCT	<b>DMC-104-01</b> 336522 T				1-3:50 PM 1-3:50 PM	
	M. DEVENDORF		\$504.00	\$52.00	\$106.00	\$662.00

**DMC-107 ANIMATION & MOTION GRAPHICS II, 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			

This project-based course will explore intermediate aspects of experimental and new technological approaches to creating digital effects and animation for video and web-based applications. Students will learn intermediate features of Adobe After Effects to create successful motion graphics projects.

**Prerequisites:** DMC-106

**Recommended Prerequisites:** DMC-104, DMC-221, and DMC-225. Previous experience with computer graphics and digital video

OC LCT	<b>DMC-107-01</b>	<b>336526 MW</b>			<b>1-3:50 PM</b>	
	T. WASSON	\$504.00	\$52.00	\$106.00		\$662.00

**DMC-108 ANIMATION & MOTION GRAPHICS III, 4 CREDITS**

Continuation of the process of animation and motion graphics design. This project-based course explores advanced aspects of experimental and new technological approaches to creating digital effects and animation for video and web-based applications. The course presents advanced aspects of industry standard 3D and compositing software to create successful VFX, 3D Animation, and Motion Graphics projects.

**Prerequisites:** DMC-107

OC	<b>DMC-108-01</b>	<b>336529 MW</b>			<b>1-3:50 PM</b>	
	T. WASSON	\$504.00	\$52.00	\$106.00		\$662.00

**DMC-222 ADVANCED 2D ANIMATION: DESIGN & TECHNIQUES, 4 CREDITS**

Covers advanced principles of 2D animation using the latest industry standard software. The course will emphasize professional workflow and techniques of animation production for multimedia platforms. This includes visual development and pre-production, advanced character design and physics, advanced environment design, FX animation and post-production, portfolio presentation, and industry expectations.

**Prerequisites:** DMC-221 or Student Petition

OC LCT	<b>DMC-222-01</b>	<b>336530 TTH</b>			<b>9-11:50 AM</b>	
	T. WASSON	\$504.00	\$52.00	\$106.00		\$662.00

**DMC-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

ONL LCT	<b>DMC-225-01</b>	<b>337009</b>				
	B. THWING	\$504.00	\$52.00	\$106.00		\$662.00

**DMC-226 COMPUTER GRAPHICS II, 4 CREDITS**

Continue exploring the processes of digital graphics programs. More advanced aspects of image compositing, bit mapping, layering, and using channels in Photoshop. More advanced aspects of vector graphics creation and document creation in Illustrator and InDesign. Creative problem solving, design applications and contemporary issues will be explored. Historical reference and current trends in digital media will continue to be examined.

**Prerequisites:** DMC-225

OC LCT	<b>DMC-226-01</b>	<b>337008 TTH</b>			<b>1-3:50 PM</b>	
	T. WASSON	\$504.00	\$52.00	\$106.00		\$662.00

**DMC-227 COMPUTER GRAPHICS III, 4 CREDITS**

Advanced use of multi-digital formats to create images, compositions and documents. Develop a design portfolio. Design principles, creative problem solving, historical and contemporary issues in graphics and aesthetics will be analyzed.

**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			

**Prerequisites:** DMC-226

OC LCT	<b>DMC-227-01</b>	<b>337006 TTH</b>			<b>1-3:50 PM</b>	
	T. WASSON	\$504.00	\$52.00	\$106.00		\$662.00

**DMC-242 FIELD RECORDING FOR MEDIA, 1 CREDIT**

This course offers students interested in recording and sweetening audio for film an opportunity to work with student film crews during the shooting and editing process.

OC LCT	<b>DMC-242-01</b>	<b>335829 F</b>			<b>6:30 -8:20 PM</b>	
		<b>S</b>			<b>9-5:50 PM</b>	
	B. ROSE	\$126.00	\$13.00	\$90.00		\$229.00
	Meets: 4/18 & 4/19.					

**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>	<b>335830 W</b>			<b>3-5:50 PM</b>	
	B. ROSE	\$378.00	\$39.00	\$90.00		\$507.00

**DMC-265 ADVANCED DIGITAL FILMMAKING, 4 CREDITS**

This course emphasizes advanced filmmaking skills. Students will produce short films from written scripts.

**Prerequisites:** DMC-104 or Student Petition

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

OC LCT	<b>DMC-265-01</b>	<b>336531 MW</b>			<b>1-3:50 PM</b>	
	M. DEVENDORF	\$504.00	\$52.00	\$106.00		\$662.00

**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. Required: Student Petition.

**Corequisites:** CWE-281

ONL LCT	<b>DMC-280-01</b>	<b>336534</b>				
	T. WASSON	\$756.00	\$78.00	\$45.00		\$879.00V
	Required: Student Petition.					

**DMC-292 DIGITAL MEDIA COMMUNICATIONS PORTFOLIO PROJECT II, 4 CREDITS**

This course is a group-focused portfolio project class for Digital Media Communications (DMC) students. The purpose of this course is to provide students the opportunity to combine their skills, knowledge, and special interests in development of a collaboratively planned and produced original work representative of more than one of the focus areas in the DMC program. The process of portfolio production at this level includes working with peers in designing, planning, refining and completing a group project. Students will also further develop their professional online portfolio (website) to represent their skills in their DMC focus area in preparation for internships and employment.

**Prerequisites:** DMC-291

OC LCT	<b>DMC-292-01</b>	<b>336535 MW</b>			<b>9-11:50 AM</b>	
	M. DEVENDORF	\$504.00	\$52.00	\$106.00		\$662.00

**Economics**

**EC-201 PRINCIPLES OF ECONOMICS: MICRO, 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	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	

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>	<b>336407 TTH</b>				<b>10-11:50 AM</b>								
	D. LOUGEE	\$504.00	\$52.00	\$0.00	\$556.00									
	Online textbook provided first day of class.													
ONL LCT	<b>EC-201-02</b>	<b>336409</b>												
	M. PARTAPURWALA	\$504.00	\$52.00	\$0.00	\$556.00									
	Online textbook provided first day of class.													

**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>	<b>336411 TTH</b>				<b>3-4:50 PM</b>								
	D. LOUGEE	\$504.00	\$52.00	\$0.00	\$556.00									
	Online textbook provided first day of class.													
ONL LCT	<b>EC-202-02</b>	<b>336414</b>												
	M. PARTAPURWALA	\$504.00	\$52.00	\$0.00	\$556.00									
	Online textbook provided first day of class.													
HAR LCT	<b>EC-202-15</b>	<b>339955 W</b>				<b>6-9:50 PM</b>								
	D. LOUGEE	\$504.00	\$52.00	\$0.00	\$556.00									
	Online textbook provided first day of class.													

**Education**

**ECE-114ES MATEMÁTICAS Y CIENCIAS PARA NIÑOS PEQUEÑOS, 3 CREDITS**

Este curso se enfoca en el aprendizaje de matemáticas y ciencias para niños pequeños. Se explorarán los componentes de matemáticas y ciencias. Se hará hincapié en las estrategias de enseñanza apropiadas para promover el conocimiento de las matemáticas y las ciencias en los niños. Se explorará el entorno físico del salón de clase para que éste fomente el aprendizaje de las matemáticas y las ciencias.

**Prerequisites:** HDF-247ES

REM ESPAÑOL	<b>ECE-114ES-01</b>	<b>336415 W</b>				<b>6-7:50 PM</b>								
	D. TORRADO	\$378.00	\$39.00	\$0.00	\$417.00									
	La clase se reúne seis miércoles por Zoom (4/2, 4/16, 4/30, 5/14, 5/28, 6/11) de 6:00PM a 7:50PM.													

**ECE-121ES OBSERVACIÓN Y ORIENTACIÓN I EN EDUCACIÓN TEMPRANA, 4 CREDITS**

El curso está diseñado para ayudar a los estudiantes a explorar en profundidad las técnicas de observación y registro del desarrollo y aprendizaje de los niños. Se examinan varias técnicas de orientación infantil para niños desde el nacimiento hasta el 3er grado. Los estudiantes recibirán estrategias para ayudarles a proporcionar orientaciones positivas a los niños en función de diferentes de escenarios y situaciones.

REM ESPAÑOL	<b>ECE-121ES-01</b>	<b>338026 S</b>				<b>9-10:50 AM</b>								
	L. JAMES	\$504.00	\$52.00	\$0.00	\$556.00									
	La clase se reúne seis sábados por Zoom (4/5, 4/19, 5/3, 5/17, 5/31, 6/7) de 6:00PM a 7:50PM.													

**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

**ECE-179 THE PROFESSIONAL IN EARLY CHILDHOOD EDUCATION AND FAMILY STUDIES, 4 CREDITS**

This course focuses on the role of the professional in Early Childhood Education (ECE). Students will explore the National Association for the Education of Young Children's Code of Ethical Conduct, the professional standards and competencies expected for ECE professionals. Students will discuss advocacy strategies and how to engage in intentional, reflective practice. Students will also create a professional portfolio to demonstrate their commitment to professionalism.

**Prerequisites:** ECE-150, ECE-221, ECE-240, ECE-280, ED-246, and HDF-247

ONL LCT	<b>ECE-179-01</b>	<b>336422</b>												
	D. HENDRICKS	\$504.00	\$52.00	\$0.00	\$556.00									

**ECE-239 TRAUMA-INFORMED PRACTICES IN EARLY CARE AND EDUCATION, 3 CREDITS**

Develops knowledge and skills that support the learning and development of young children, birth to age 8, who have been adversely impacted by trauma. Explores types and symptoms of trauma, and emphasizes trauma-informed practices that can be applied in the child's home and school setting. Identifies available resources and recognized strategies for working collaboratively with families and other professionals.

**Prerequisites:** ECE-150 and HDF-225

ONL LCT	<b>ECE-239-01</b>	<b>336424</b>												
	D. GLASCOCK	\$378.00	\$39.00	\$0.00	\$417.00									
	Meets: 4/1-5/5.													

**ECE-240 ENVIRONMENTS AND CURRICULUM PLANNING, 4 CREDITS**

Focuses on an introduction of creating learning environments and curriculum for children from three years old through five years old in home or center-based programs. Course covers theories and relationships between physical and social space, activities, experiences, and materials. Students are introduced to the use of developmentally and culturally appropriate practices in planning and selecting environments and curriculum for young children.

**Prerequisites:** ECE-150, ECE-235, and HDF-225

REM	<b>ECE-240-01</b>	<b>336426 W</b>				<b>5:30 - 7:30 PM</b>								
	B. KING	\$504.00	\$52.00	\$0.00	\$556.00									
	This class meets on six Wednesdays via Zoom (4/2, 4/16, 4/30, 5/14, 5/28, 6/1) from 5:30PM-7:30PM.													

**ECE-240ES AMBIENTES Y PLANIFICACIÓN CURRICULAR, 4 CREDITS**

Se enfoca en una introducción a la creación de entornos de aprendizaje y planes de estudio para niños de tres a cinco años de edad en programas basados en hogares o centros. El curso cubre las teorías y las relaciones entre el espacio físico y social, las actividades, las experiencias y los materiales. Se enseña a los estudiantes el uso de prácticas adecuadas para el desarrollo y la cultura en la planificación y la selección de entornos y planes de estudio para niños pequeños.

**Prerequisites:** ECE-150ES, ECE-235ES, FYE-101ES, HDF-247ES, and WR-124ES

REM LCT ESPAÑOL	<b>ECE-240ES-01</b>	<b>336429 T</b>				<b>6-7:50 PM</b>								
	Y. SANCHEZ	\$504.00	\$52.00	\$0.00	\$556.00									
	La clase se reúne seis martes por Zoom (4/1, 4/15, 4/29, 5/13, 5/27, 6/10) de 6:00PM a 7:50PM.													

**ECE-254ES ESTRATEGIAS DE INSTRUCCIÓN PARA ESTUDIANTES DE DOS IDIOMAS, 4 CREDITS**



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	
<p>Este curso examina enfoques pedagogicos y culturales que conducen a un desarrollo exitoso del dominio del idioma ingles, idioma usado en la casa, y reconocimiento del contenido por los niños cuyo idioma en el hogar no es el inglés. Se enfoca en el niño desde su nacimiento hasta la escuela primaria.</p> <p><b>Prerequisites:</b> ECE-154ES and ECE-240ES</p>							<p>Focuses on field experiences for early childhood education students in a variety of educational settings, serving children from birth through kindergarten. This course allows students to deepen and apply their knowledge, methods, and skills gained from early childhood education and family studies courses as well as the previous terms of practicum and CWE. The course covers continuing observation/assessment, assisting the supervising teacher in implementing an integrated approach to curriculum with attention paid to working with diverse children and their families. Students will complete their professional portfolio in this course, documenting how they have achieved the program learning outcomes. Required: Student Petition.</p> <p><b>Prerequisites:</b> ECE-154, ECE-221, ECE-240, ED-254, and ECE-291</p>						
REM ESPAÑOL	<b>ECE-254ES-01 336434 S</b>				<b>9-10:50 AM</b>								
	M. GARCIA AVILEZ	\$504.00	\$52.00	\$0.00	\$556.00								
	La clase se reúne seis sábados por Zoom (4/5, 4/19, 5/3, 5/17, 5/31, 6/7) de 9:00AM a 10:50AM.												
<b>ECE-258ES</b>	<b>EQUIDAD Y DIVERSIDAD EN LA EDUCACIÓN INFANTIL, 4 CREDITS</b>												
Este curso se enfoca en promover y honrar la diversidad y la equidad en la educación infantil. El enfoque será en colaborar con familias diversas, establecer ámbitos culturales y lingüísticos que sean diversificados y promuevan una autoidentificación positiva en los niños pequeños.													
<b>Prerequisites:</b> ECE-150ES, ECE-235ES, and FYE-101ES													
REM LCT ESPAÑOL	<b>ECE-258ES-01 336437 W</b>				<b>6-7:50 PM</b>								
	B. MARRON	\$504.00	\$52.00	\$0.00	\$556.00								
	La clase se reúne seis miércoles por Zoom (4/2, 4/16, 4/30, 5/14, 5/28, 6/11) de 6:00PM a 7:50PM.												
REM ESPAÑOL	<b>ECE-258ES-02 336438 TH</b>				<b>6-7:50 PM</b>								
	B. MARRON	\$504.00	\$52.00	\$0.00	\$556.00								
	La clase se reúne seis jueves por Zoom (4/3, 4/17, 5/1, 5/15, 5/29, 6/12) de 6:00PM a 7:50PM.												
<b>ECE-280</b>	<b>EARLY CHILDHOOD EDUCATION/CWE, 3 CREDITS</b>												
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.													
<b>Corequisites:</b> CWE-281													
<b>Prerequisites:</b> ECE-121, ECE-150, and ECE-154													
OC	<b>ECE-280-01 336442</b>												
	D. GLASCOCK	\$378.00	\$39.00	\$45.00	\$462.00								
	Required: Student Petition. Contact: denise.glascock@clackamas.edu or 503-594-3488. Corequisite: Take the following CWE-281-06.												
<b>ECE-280ES</b>	<b>EXPERIENCIA LABORAL COOPERATIVA, 4 CREDITS</b>												
En este curso, los estudiantes completan 144 horas de trabajo en un entorno de primera infancia, asistiendo a niños y familias desde el nacimiento hasta los 8 años de edad. Si no completan las horas requeridas, recibirá un curso incompleto o reprobará.													
<b>Corequisites:</b> CWE-281ES													
ONL ESPAÑOL	<b>ECE-280ES-01 336443</b>												
	B. MARRON	\$504.00	\$52.00	\$45.00	\$601.00								
	Requerido: petición del estudiante.												
<b>ECE-292</b>	<b>PRACTICUM III, 4 CREDITS</b>												
Este curso se enfoca en la experiencia de trabajo de los estudiantes con varios entornos educacionales en salones de clases enfocadas directamente con la enseñanza y supervisión de niños desde el nacimiento hasta el kínder. Este curso permite a los estudiantes aplicar conocimientos y metodologías adquiridas en los cursos de educación infantil, y sean transferibles a las habilidades requeridas en un ambiente educacional entre 0 a 8 años de edad. Los seminarios obligatorios abarcan la revisión de los dominios del desarrollo, los ámbitos de aprendizaje, las experiencias reales en el salón de clases, resolución de problemas, desarrollo del plan de estudios, técnicas de evaluación y la orientación del aprendizaje y la conducta de los niños.													
<b>Prerequisites:</b> ECE-291ES													
REM ESPAÑOL	<b>ECE-292ES-01 336451 F</b>				<b>6-8:50 PM</b>								
	A. ECHEVARRIA	\$504.00	\$52.00	\$0.00	\$556.00								
	Requerido: petición del estudiante. La clase se reúne cinco viernes por Zoom (4/4, 4/18, 5/2, 5/16, 5/30) de 6:00PM a 8:50PM.												
<b>ED-101</b>	<b>INTRO TO EDUCATION PRACTICUM &amp; SEMINAR, 4 CREDITS</b>												
This seminar presents critical topics associated with the Education profession. Each topic will be introduced with an understanding that future Education classes will expand student comprehension and knowledge to a mastery level. Students are also required to participate in a 60 hour practicum experience in a K-12 school to provide the opportunity to gain experience with the various educational issues discussed in class. Required: Student Petition.													
OC	<b>ED-101-01 336452 T</b>				<b>10-11:50 AM</b>								
	L. SCOTT	\$504.00	\$52.00	\$0.00	\$556.00								
	Required: Student Petition.												
<b>ED-150</b>	<b>CREATIVE ACTIVITIES FOR CHILDREN, 3 CREDITS</b>												
The class focuses on understanding and implementing a developmental approach to creative activities for young children; involves hands-on experience with a variety of mediums including art, music and movement, and creative dramatics.													
OC HYB	<b>ED-150-01 340015 W</b>				<b>1-2:50 PM</b>								
	L. SCOTT	\$378.00	\$39.00	\$0.00	\$417.00								
	This class meets every other week: 4/9, 4/23, 5/7, 5/21, and 6/4.												
<b>ED-216</b>	<b>FOUNDATIONS OF TEACHING &amp; EDUCATION, 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
		Instructor		Tuition	Fee	Crs. Fee

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.

ONL	<b>ED-216-01</b>	<b>336453</b>				
	L. SCOTT		\$504.00	\$52.00	\$43.75	\$599.75
	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>336454</b>				
	M. HELZERMAN		\$378.00	\$39.00	\$0.00	\$417.00

**ED-258 CULTURALLY RESPONSIVE TEACHING & EDUCATION, 3 CREDITS**

Explores historical and systemic inequities in U.S. society and how they impact students, schools, and communities. Provides an overview of the ways in which educators can select culturally appropriate pedagogy, materials, and curriculum in order to serve the needs of an increasingly diverse U.S. educational system. Applies this knowledge in creating classrooms and schools where all students, families, and communities are valued, belong, and thrive.

ONL	<b>ED-258-01</b>	<b>336459</b>				
	L. SCOTT		\$378.00	\$39.00	\$39.00	\$456.00
	Two books. One is an online textbook included in section fees, the second is available at the Bookstore.					

OC HYB	<b>ED-258-02</b>	<b>336460 T</b>			<b>1-2:50 PM</b>	
	L. SCOTT		\$378.00	\$39.00	\$39.00	\$456.00
	Two books. One is an online textbook included in section fees, the second is available at the Bookstore. This class meets: 4/1, 4/15, 4/29, 5/13, 5/27, and 6/10.					

**Educational Focus Area**

**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.

OC LCT	<b>EFA-101J-01</b>	<b>336002 W</b>			<b>3-4:50 PM</b>	
	Y. SMITH		\$252.00	\$26.00	\$0.00	\$278.00
	No textbook required.					

**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-114 ELECTRONIC EQUIPMENT AND ASSEMBLY III, 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

This is the third course in a three course sequence with a focus on soldering skills. Through-hole and SMT techniques will be introduced.

**Prerequisites:** EET-113

OC	<b>EET-114-01</b>	<b>336537 MW</b>				<b>4:30 -5:20 PM</b>
	W. SELLEVAAG		\$126.00	\$13.00	\$43.75	\$182.75

**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	<b>EET-139-01</b>	<b>340227 MW</b>				<b>1-4:00 PM</b>
	S. PAVEY		\$252.00	\$26.00	\$87.00	\$365.00

**EET-142 ELECTRICAL FUNDAMENTALS III, 4 CREDITS**

Covers sinusoidal functions and phasors and complex impedance. Analyze systems to determine AC circuit parameters and complex power. Circuits contain voltage and current sources, resistors, inductors, and transformers.

**Prerequisites:** EET-141

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

OC	<b>EET-142-01</b>	<b>336539 MW</b>				<b>12-3:50 PM</b>
	W. SELLEVAAG		\$504.00	\$52.00	\$174.00	\$730.00

**EET-234 PROGRAMMABLE LOGIC CONTROLLERS II, 3 CREDITS**

An advanced course of study that will develop the student's understanding of Programmable Logic Controllers (PLC) in more detailed Industrial applications through lectures, labs and hands-on examples. This course will emphasize advanced PLC functions and data sets, networking schemes and human machine interfaces.

**Prerequisites:** EET-233

OC	<b>EET-234-01</b>	<b>336543 TH</b>				<b>6-8:50 PM</b>
	B. GARDNER		\$378.00	\$39.00	\$131.25	\$548.25

**EET-235 MECHATRONICS II, 2 CREDITS**

This course expands on advanced electromechanical principles with applications in manufacturing and industrial systems. Students will study the applications of Proportional Integral Differential (PID) controllers for motion and process control and the electromechanical components that are integral to industrial machinery.

**Prerequisites:** EET-225

OC	<b>EET-235-01</b>	<b>336544 MW</b>				<b>1-2:50 PM</b>
	M. MATTSON		\$252.00	\$26.00	\$87.50	\$365.50

**EET-250 LINEAR CIRCUITS, 3 CREDITS**

Introduction to the operation and functions of operational amplifiers and linear devices. Design and circuit analysis of op-amps, comparators, converters and special purpose linear devices. Industry standard devices will be used.

**Prerequisites:** EET-227

OC	<b>EET-250-01</b>	<b>336546 MW</b>				<b>5:30 -8:20 PM</b>
	W. SELLEVAAG		\$378.00	\$39.00	\$130.50	\$547.50

**EET-254 INTRODUCTION TO MICROCONTROLLERS, 3 CREDITS**

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

Introduction to processor architecture and microcontrollers. Internal structure, registers, busses, control unit. Clock, machine and instruction cycling timing, interrupts and DMA. Instruction set, mnemonics, functions, and assembly language programming. Interfacing to external memory and I/O on-chip peripherals.

**Prerequisites:** EET-157  
**Recommended Prerequisites:** EET-257

OC	EET-254-01	336547	MW	5:30 -8:20 PM
	J. LEE	\$378.00	\$39.00	\$130.50 \$547.50

**SM-170 SEMICONDUCTOR PROCESSING III, 2 CREDITS**

Covers the essential process and equipment issues related to the etching, diffusion and ion implantation. Troubleshooting of common equipment and process related problems are emphasized.

**Recommended Prerequisites:** SM-150

ONL	SM-170-01	336788		
	W. SELLEVAAG	\$252.00	\$26.00	\$87.00 \$365.00

**SM-229 VACUUM TECHNOLOGY, 2 CREDITS**

Focuses on elementary theory and practice of vacuum equipment for microelectronics processing. Students study vacuum fundamentals, pumps, and equipment used in vacuum systems.

**Recommended Prerequisites:** SM-150

ONL	SM-229-01	336789		
	W. SELLEVAAG	\$252.00	\$26.00	\$87.00 \$365.00

**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. Required: Student Petition.

**Corequisites:** CWE-281

ONL	SM-280-01	336790		
	C. CONNORS	\$756.00	\$78.00	\$255.00 \$1,089.00V

Required: Student Petition. Restricted: Microelectronics or electronics students. Corequisite: Take 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.

**Required:** Acceptance into the current EMT cohort

**Prerequisites:** EMT-105 with a C or better

**Prerequisites:** MTH-060 with a C or better or placement in MTH-065

**Prerequisites:** WRD-098 with a C or better or placement in WR-121Z

HAR	EMT-101-01	340017	MWF	6-9:20 PM
	T. SAWZAK	\$756.00	\$78.00	\$400.00 \$1,234.00

Required: Student Petition.

**EMT-102 EMERGENCY MEDICAL TECHNICIAN PART II, 6 CREDITS**

This course is the second of the two-part series that will prepare students to enter the workforce as an emergency medical service provider. Topics include patient assessment, treatment/stabilization for environmental and trauma emergencies, providing emergency care to special patient populations, and EMS operations. Includes 20 hours of observational time in an emergency department and with an EMS unit. Upon successful completion, students will qualify to take the National Registry of Emergency Medical Technicians cognitive certification exam. Required: Student Petition.

**Required:** Completion and documentation of all OHA Health Profession Student Clinical Training Administrative Requirements

**Prerequisites:** EMT-101 with a C or better

HAR	EMT-102-01	335863	MWF	1-4:20 PM
	T. SAWZAK	\$756.00	\$78.00	\$400.00 \$1,234.00

Required: Student Petition.

**EMT-105 INTRODUCTION TO EMERGENCY MEDICAL SERVICES, 3 CREDITS**

Introduces the student to Emergency Medical Services (EMS). Explores the career pathways for EMTs and Paramedics. Examines the history, structure, and function of our modern-day EMS system. Includes provider roles and responsibilities, operations, safety, legal considerations, and career opportunities. In addition, this class provides a foundation for the EMT certification course by including a review of anatomy and physiology; where things are and how they are supposed to work, pathophysiology; what happens when disease or injury causes those systems to fail, and patient assessment; how EMS providers evaluate for those conditions and make treatment and transport decisions.

ONL	EMT-105-01	335864		
	T. SAWZAK	\$378.00	\$39.00	\$0.00 \$417.00
ONL	EMT-105-02	340018		
	T. SAWZAK	\$378.00	\$39.00	\$0.00 \$417.00

**EMT-109 EMERGENCY RESPONSE COMMUNICATION/DOCUMENTATION, 2 CREDITS**

Covers principles of communication via verbal, written and electronic modes in the provision of EMS. Documentation of the elements of patient assessment, patient care and transport, communication systems, radio types, reports, codes and correct techniques.

**Prerequisites:** EMT-101

ONL	EMT-109-01	335865		
	S. COOPER	\$252.00	\$26.00	\$0.00 \$278.00

**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-111Z or higher

OC LCT	ENGR-111-01	336549	MW	4-5:20 PM
	TBA	\$378.00	\$39.00	\$10.00 \$427.00

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

**Campus Locations:**

- HAR:** Harmony Community Campus
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**ESPAÑOL:** Enseñado en español

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

Introduction to basic scientific and engineering computing. 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>336553 MW</b>			<b>1-2:20 PM</b>	
	E. LEE	\$378.00	\$39.00	\$0.00		\$417.00

**ENGR-115 ENGINEERING GRAPHICS, 3 CREDITS**

This course will emphasize the practical application of engineering graphics techniques for the design, maintenance, and modification of mechanical parts and assemblies. Students will both generate new models based on design intent and translate existing physical objects into graphical 3D models, documenting their work with 2D engineering drawings according to ASME standards. Includes isometric views, dimensioning, and simulation.

**Prerequisites:** MTH-060 or higher

oc	<b>ENGR-115-01</b>	<b>336555 TTH</b>			<b>8:30 -9:50 AM</b>	
	C. CONNORS	\$378.00	\$39.00	\$35.00		\$452.00

**ENGR-201 ELECTRICAL FUNDAMENTALS, 4 CREDITS**

A study of basic electrical circuit theory. Analysis of voltage and current relationships. Covers circuit parameters of resistance, inductance, and capacitance. Includes basic DC, AC, and natural response of circuits. This course is not intended for Electrical or Computer Engineering majors.

**Corequisites:** ENGR-201L

**Prerequisites:** MTH-252

oc	<b>ENGR-201-01</b>	<b>336556 MW</b>			<b>9-10:20 AM</b>	
	E. LEE	\$504.00	\$52.00	\$0.00		\$556.00

**ENGR-201L ELECTRICAL FUNDAMENTALS LAB, 0 CREDIT**

Lab course for ENGR-201

**Corequisites:** ENGR-201

oc	<b>ENGR-201L-01</b>	<b>336558 MW</b>			<b>10:30 -11:50 AM</b>	
	E. LEE	\$0.00	\$0.00	\$0.00		\$0.00

**ENGR-213 STRENGTH OF MATERIALS, 4 CREDITS**

Introduces the relation of externally applied loads and their internal effects on deformable bodies, such as columns, shafts, beams and statically indeterminate structures or systems made up of such members.

**Prerequisites:** ENGR-211

oc	<b>ENGR-213-01</b>	<b>336560 MW</b>			<b>3-4:50 PM</b>	
	E. LEE	\$504.00	\$52.00	\$20.00		\$576.00

**ENGR-223 ELECTRICAL CIRCUIT ANALYSIS III, 4 CREDITS**

Final course in the electrical circuits sequence. The main emphases of the course are frequency response of circuits, the design and analysis of filters, Laplace transform analysis, and the Fourier series. The laboratory portion of the course will consist of one project involving significant design and analysis.

**Prerequisites:** ENGR-222

**Corequisites:** ENGR-223L

**Recommended Prerequisite or Corequisite:** MTH-256

oc	<b>ENGR-223-01</b>	<b>336561 TTH</b>			<b>9-10:20 AM</b>	
	E. LEE	\$504.00	\$52.00	\$52.00		\$608.00

**Campus Locations:**  
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**VAR:** Variable credit class

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

**ENGR-223L ELECTRICAL CIRCUIT ANALYSIS III LAB, 0 CREDIT**

Lab course for ENGR-223

**Corequisites:** ENGR-223

**Recommended Prerequisite or Corequisite:** MTH-256

oc	<b>ENGR-223L-01</b>	<b>336564 TTH</b>			<b>10:30 -11:50 AM</b>	
	E. LEE	\$0.00	\$0.00	\$0.00		\$0.00

**ENGR-271 DIGITAL SYSTEMS, 4 CREDITS**

The second course in digital design. Explores synchronous state machine and memory system design and analysis. Timing analysis and design for test techniques are introduced. Uses computer-based tools for logic system development and simulation. Reinforces systemic design methodology.

**Prerequisites:** ENGR-171

**Recommended Prerequisites:** ENGR-112

oc	<b>ENGR-271-01</b>	<b>336566 TTH</b>			<b>12:30 -3:20 PM</b>	
	W. SELLEVAAG	\$504.00	\$52.00	\$0.00		\$556.00

**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. Aligns with the Oregon Adult English Language Proficiency Standards, Level 1 and the Oregon Adult College and Career Readiness Standards Reading Foundational Skills. Variable Hours: 48-66 hours. Required: Student Petition.

OC LCT	<b>ESOL-012-01</b>	<b>335978 MW</b>			<b>9-11:50 AM</b>	
	D. VERMILLION	\$0.00	\$0.00	\$60.00		\$60.00

Required: Student Petition.

OC LCT	<b>ESOL-012-02</b>	<b>339969 MW</b>			<b>9-11:50 AM</b>	
	T. NIKOLOPOULOS	\$0.00	\$0.00	\$60.00		\$60.00

Required: Student Petition.

HAR LCT	<b>ESOL-012-06</b>	<b>335981 MW</b>			<b>6-8:50 PM</b>	
	K. STECKMEST	\$0.00	\$0.00	\$60.00		\$60.00

Required: Student Petition.

HAR LCT	<b>ESOL-012-07</b>	<b>335985 MW</b>			<b>6-8:50 PM</b>	
	K. HOLLOWAY	\$0.00	\$0.00	\$60.00		\$60.00

Required: Student Petition.

**ESOL-013 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. Aligns with the Oregon Adult English Language Proficiency Standards, Level 1 and the Oregon Adult College and Career Readiness Standards Reading Foundational Skills. This course introduces the same skills as ESOL-012, but provides fewer hours toward developing mastery. Required: Student Petition.

REM LCT	<b>ESOL-013-06</b>	<b>340219 MW</b>			<b>7:30 -8:50 PM</b>	
	J. STENSETH	\$0.00	\$0.00	\$30.00		\$30.00

Required: Student Petition.

**ESOL-015 BEGINNING READING, WRITING, AND GRAMMAR, 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 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. Aligns with the Oregon Adult English Language Proficiency Standards, Level 1. Variable hours: 48-66 hours. Required: Student Petition.

OC LCT	<b>ESOL-015-01 335988 TTH</b>	J. RUEDA	\$0.00	\$0.00	\$65.00	\$65.00
	Required: Student Petition.					
HAR LCT	<b>ESOL-015-06 335990 TTH</b>	O. TREHUBOVA	\$0.00	\$0.00	\$65.00	\$65.00
	Required: Student Petition.					
HAR LCT	<b>ESOL-015-07 339964 TTH</b>	L. ROWE	\$0.00	\$0.00	\$65.00	\$65.00
	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. Aligns with the Oregon Adult English Language Proficiency Standards, Level 1. Required: Student Petition.

OC LCT	<b>ESOL-020-01 335992 TTH</b>	J. RUEDA	\$0.00	\$0.00	\$35.00	\$35.00
	Required: Student Petition.					
HAR LCT	<b>ESOL-020-06 335996 MW</b>	O. TREHUBOVA	\$0.00	\$0.00	\$35.00	\$35.00
	Required: Student Petition.					
REM LCT	<b>ESOL-020-07 339973 MW</b>	A. FRANZONI	\$0.00	\$0.00	\$35.00	\$35.00
	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. Aligns with the Oregon Adult English Language Proficiency Standards, Level 2. Required: Student Petition.

OC LCT	<b>ESOL-024-01 335999 TTH</b>	T. NIKOLOPOULOS	\$0.00	\$0.00	\$60.00	\$60.00
	Required: Student Petition.					
HAR LCT	<b>ESOL-024-06 336004 TTH</b>	K. HOLLOWAY	\$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, and advice. Aligns with the Oregon Adult English Language Proficiency Standards, Level 2. Required: Student Petition.

OC LCT	<b>ESOL-030-01 336007 TTH</b>	S. MUNRO	\$0.00	\$0.00	\$30.00	\$30.00
	Required: Student Petition.					
REM LCT	<b>ESOL-030-06 336011 MW</b>	P. MROZEK	\$0.00	\$0.00	\$30.00	\$30.00
	Required: Student Petition.					

**ESOL-031 INTERMEDIATE GRAMMAR B, 0 CREDIT**

One of a two-part series. English language learners study and practice simple past and present perfect verb forms with time expressions, and comparative and superlative adjectives in written and spoken English. Aligns with the Oregon Adult English Language Proficiency Standards, Level 2. Required: Student Petition.

**Campus Locations:**  
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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	

HAR LCT	<b>ESOL-031-06 339975 MW</b>	K. EMENS-HESSLINK	\$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. Aligns with the Oregon Adult English Language Proficiency Standards, Levels 2 and 3. Required: Student Petition.

OC LCT	<b>ESOL-032-01 336015 MW</b>	A. FRANZONI	\$0.00	\$0.00	\$30.00	\$30.00
	Required: Student Petition.					
HAR LCT	<b>ESOL-032-06 336020 MW</b>	K. EMENS-HESSLINK	\$0.00	\$0.00	\$30.00	\$30.00
	Required: Student Petition.					
REM LCT	<b>ESOL-032-07 340220 MW</b>	A. FRANZONI	\$0.00	\$0.00	\$30.00	\$30.00
	Required: Student Petition.					

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

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. Aligns with the Oregon Adult English Language Proficiency Standards, Levels 2 and 3. Required: Student Petition.

OC LCT	<b>ESOL-034-01 336025 TTH</b>	D. VERMILLION	\$0.00	\$0.00	\$60.00	\$60.00
	Required: Student Petition.					
HAR LCT	<b>ESOL-034-06 336030 TTH</b>	L. NARDONE	\$0.00	\$0.00	\$60.00	\$60.00
	Required: Student Petition.					

**ESOL-042 UPPER INTERMEDIATE CONVERSATION 1, 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. Aligns with the Oregon Adult English Language Proficiency Standards, Levels 3 and 4. Required: Student Petition.

OC LCT	<b>ESOL-042-01 336033 MW</b>	S. MUNRO	\$0.00	\$0.00	\$30.00	\$30.00
	Required: Student Petition.					
HAR LCT	<b>ESOL-042-06 336036 MW</b>	S. CAISSE	\$0.00	\$0.00	\$30.00	\$30.00
	Required: Student Petition.					
REM LCT	<b>ESOL-042-07 339972 MW</b>	P. MROZEK	\$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. Aligns with the Oregon Adult English Language Proficiency Standards, Levels 3 and 4. Required: Student Petition.

OC LCT	<b>ESOL-044-01 336037 TTH</b>	L. JOYCE	\$0.00	\$0.00	\$70.00	\$70.00
	Required: Student Petition.					
HAR LCT	<b>ESOL-044-06 336040 TTH</b>	J. STENSETH	\$0.00	\$0.00	\$70.00	\$70.00
	Required: Student Petition.					

**Other Coding Translations:**  
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**LCT:** Low-Cost Text

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

**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. Aligns with the Oregon Adult English Language Proficiency Standards, Levels 2, 3 and 4. Required: Student Petition.

OC LCT	<b>ESOL-046-01</b>	<b>336043</b>	<b>TTH</b>		<b>9-11:50 AM</b>	
	K. LONG	\$0.00	\$0.00	\$60.00	\$60.00	
	Required: Student Petition.					
HAR LCT	<b>ESOL-046-06</b>	<b>336045</b>	<b>TTH</b>		<b>6-8:50 PM</b>	
	S. CAISSE	\$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. Aligns with the Oregon Adult English Language Proficiency Standards, Levels 3 and 4. Required: Student Petition.

OC LCT	<b>ESOL-051-01</b>	<b>339965</b>	<b>TTH</b>		<b>12:30 -1:50 PM</b>	
	K. LONG	\$0.00	\$0.00	\$30.00	\$30.00	
	Required: Student Petition.					
HAR LCT	<b>ESOL-051-06</b>	<b>339974</b>	<b>MW</b>		<b>7:30 -8:50 PM</b>	
	S. CAISSE	\$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. Aligns with the Oregon Adult English Language Proficiency Standards, Level 4 & 5. Required: Student Petition.

OC LCT	<b>ESOL-052-01</b>	<b>336053</b>	<b>MW</b>		<b>10:30 -11:50 AM</b>	
	J. RUEDA	\$0.00	\$0.00	\$30.00	\$30.00	
	Required: Student Petition.					
HAR LCT	<b>ESOL-052-06</b>	<b>336056</b>	<b>MW</b>		<b>6-7:20 PM</b>	
	I. FERGUSON	\$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. Aligns with the Oregon Adult English Language Proficiency Standards, Levels 4 and 5. Required: Student Petition.

OC LCT	<b>ESOL-054-01</b>	<b>336058</b>	<b>TTH</b>		<b>9-11:50 AM</b>	
	S. MUNRO	\$0.00	\$0.00	\$70.00	\$70.00	
	Required: Student Petition.					
HAR LCT	<b>ESOL-054-06</b>	<b>336062</b>	<b>TTH</b>		<b>6-8:50 PM</b>	
	I. FERGUSON	\$0.00	\$0.00	\$70.00	\$70.00	
	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 higher-level academics and everyday life. (Aligns with the Oregon Adult English Language Proficiency Standards, Levels 2-4; and Oregon Adult College and Career Readiness Reading Fundamentals) Required: Student Petition.

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

OC LCT	<b>ESOL-062-01</b>	<b>339967</b>	<b>MW</b>		<b>12:30 -1:50 PM</b>	
	K. LONG	\$0.00	\$0.00	\$30.00	\$30.00	
	Required: Student Petition.					

**ESOL-069 PRONUNCIATION: PATTERNS OF AMERICAN ENGLISH, 0 CREDIT**

English language learners develop pronunciation skills and knowledge to improve speech clarity, listening effectiveness, and pronunciation of written words. This course focuses on the speech patterns of American English. Required: Student Petition.

OC LCT	<b>ESOL-069-01</b>	<b>336067</b>	<b>MW</b>		<b>9-10:20 AM</b>	
	S. MUNRO	\$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, accessing student portal and email, student responsibilities, and community resources. Students are tested to determine their language levels and class placement. Students select courses with a faculty advisor. This course is used administratively to identify new students in the ESOL department. Required: Student Petition.

ONL	<b>ESOL-082-01</b>	<b>336070</b>				
	L. JOYCE	\$0.00	\$0.00	\$0.00	\$0.00	
	Required: Student Petition.					
ONL	<b>ESOL-082-06</b>	<b>336072</b>				
	L. JOYCE	\$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 faculty advisors to review their progress, revisit their goals, choose next term's classes, and learn how to transition to other educational and training opportunities at the college and in other community programs. This course is used administratively to identify returning students in the ESOL department. Required: Student Petition.

ONL	<b>ESOL-083-01</b>	<b>336073</b>				
	L. JOYCE	\$0.00	\$0.00	\$0.00	\$0.00	
	Required: Student Petition.					
ONL	<b>ESOL-083-06</b>	<b>336076</b>				
	L. JOYCE	\$0.00	\$0.00	\$0.00	\$0.00	
	Required: Student Petition.					

**PIE-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. Aligns with the Oregon Adult English Language Proficiency Standards, Level 1. Required: Student Petition.

oc	<b>PIE-020-01</b>	<b>336077</b>	<b>TTH</b>		<b>12:30 -1:50 PM</b>	
	J. RUEDA	\$378.00	\$39.00	\$240.00	\$657.00	
	Required: Student Petition.					

**PIE-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. Aligns with the Oregon Adult English Language Proficiency Standards, Level 2. Required: Student Petition.

**Campus Locations:**  
**HAR:** Harmony Community Campus  
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**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>PIE-024-01 336080 TTH</b> T. NIKOLOPOULOS Required: Student Petition.		\$756.00	\$78.00	\$480.00	\$1,314.00

**PIE-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, and advice. Aligns with the Oregon Adult English Language Proficiency Standards, Level 2. Required: Student Petition.

oc	<b>PIE-030-01 336083 TTH</b> S. MUNRO Required: Student Petition.		\$378.00	\$39.00	\$240.00	\$657.00
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**PIE-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. Aligns with the Oregon Adult English Language Proficiency Standards, Levels 2 and 3. Required: Student Petition.

oc	<b>PIE-032-01 336085 MW</b> A. FRANZONI Required: Student Petition.		\$378.00	\$39.00	\$240.00	\$657.00
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**PIE-034 INTERMEDIATE READING & WRITING, 0 CREDIT**  
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. Aligns with the Oregon Adult English Language Proficiency Standards, Levels 2 and 3. Required: Student Petition.

oc	<b>PIE-034-01 336087 TTH</b> D. VERMILLION Required: Student Petition.		\$756.00	\$78.00	\$480.00	\$1,314.00
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**PIE-042 UPPER INTERMEDIATE CONVERSATION 1, 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. Aligns with the Oregon Adult English Language Proficiency Standards, Levels 3 and 4. Required: Student Petition.

oc	<b>PIE-042-01 336089 MW</b> S. MUNRO Required: Student Petition.		\$378.00	\$39.00	\$240.00	\$657.00
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**PIE-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. Aligns with the Oregon Adult English Language Proficiency Standards, Levels 3 and 4. Required: Student Petition.

oc	<b>PIE-044-01 336091 TTH</b> L. JOYCE Required: Student Petition.		\$756.00	\$78.00	\$480.00	\$1,314.00
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**PIE-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. Aligns with the Oregon Adult English Language Proficiency Standards, Levels 2, 3 and 4. 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			
oc	<b>PIE-046-01 336093 TTH</b> K. LONG Required: Student Petition.		\$756.00	\$78.00	\$480.00	\$1,314.00

**PIE-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. Aligns with the Oregon Adult English Language Proficiency Standards, Levels 3 and 4. Required: Student Petition.

oc	<b>PIE-051-01 339966 TTH</b> K. LONG Required: Student Petition.		\$378.00	\$39.00	\$240.00	\$657.00
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**PIE-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. Aligns with the Oregon Adult English Language Proficiency Standards, Level 4 & 5. Required: Student Petition.

oc	<b>PIE-052-01 336096 MW</b> J. RUEDA Required: Student Petition.		\$378.00	\$39.00	\$240.00	\$657.00
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**PIE-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. Aligns with the Oregon Adult English Language Proficiency Standards, Levels 4 and 5. Required: Student Petition.

oc	<b>PIE-054-01 336098 TTH</b> S. MUNRO Required: Student Petition.		\$756.00	\$78.00	\$480.00	\$1,314.00
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**PIE-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 higher-level academics and everyday life. (Aligns with the Oregon Adult English Language Proficiency Standards, Levels 2-4; and Oregon Adult College and Career Readiness Reading Fundamentals) Required: Student Petition.

oc	<b>PIE-062-01 339968 MW</b> K. LONG Required: Student Petition.		\$378.00	\$39.00	\$240.00	\$657.00
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**PIE-069 PRONUNCIATION: PATTERNS OF AMERICAN ENGLISH, 0 CREDIT**  
English language learners develop pronunciation skills and knowledge to improve speech clarity, listening effectiveness, and pronunciation of written words. This course focuses on the speech patterns of American English. Required: Student Petition.

oc	<b>PIE-069-01 336103 MW</b> S. MUNRO Required: Student Petition.		\$378.00	\$39.00	\$240.00	\$657.00
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## English Literature

**ENG-106Z INTRODUCTION TO POETRY, 4 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

The study of poetry invites us to delve into the biggest questions about life and culture alongside the seemingly smallest issues of words and sounds. ENG-106Z provides opportunities for the appreciation of poetry, including deeper awareness of craft and insight into how reading poetry can lead to self-enrichment. Students read a variety of types of poetry and poetic forms, from diverse perspectives and eras, and develop their skills in discussion, literary analysis, and critical thinking.

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

OC LCT	ENG-106Z-01	336473	MW			10-11:50 AM
	J. DAVIS	\$504.00	\$52.00	\$0.00		\$556.00

**ENG-109 WORLD LITERATURE: THE 19TH THROUGH 21ST CENTURIES, 4 CREDITS**

Literature of the 19th through 21st centuries, in a variety of genres. Through class discussion, research, and written work, students practice close reading and literary interpretation, explore the readings' contemporary relevance, relate the readings to their own lives and the world, and engage in academic conversations about the literature.

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

ONL	ENG-109-01	338044				
	A. WARREN	\$504.00	\$52.00	\$0.00		\$556.00

**ENG-195 AMERICAN FILM, 4 CREDITS**

This course will focus on the history and theory of American filmmaking from 1895 to the present. Film will be viewed as a visual language and an evolving art form that expresses and influences American culture.

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

oc	ENG-195-01	336474	MW			1-2:50 PM
	R. DAVIS	\$504.00	\$52.00	\$0.00		\$556.00

**ENG-218 ARTHURIAN LITERATURE, 4 CREDITS**

Explores the origins and development of Arthurian literature, focusing on the historical, cultural, social, and literary significance of original texts. Considers the Arthurian body of literature in the larger context of Western civilization and literary traditions, including its influence on contemporary literature, film, and art. Introduces theoretical approaches to literature and basic literary elements and terminology.

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

oc	ENG-218-01	338045	TTH			1-2:50 PM
	C. BURNELL	\$504.00	\$52.00	\$0.00		\$556.00

**ENG-226 POPULAR LITERATURE, 4 CREDITS**

Focuses on genre work within prose, film, comics and/or videogames that is specific in theme and targeted towards a more mass audience than traditional literary work. Genres might include but not necessarily be limited to horror, fantasy, science fiction, romance, and/or westerns. May be repeated for up to 8 credits.

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

oc	ENG-226-01	340196	TTH			10-11:50 AM
	A. WARREN	\$504.00	\$52.00	\$0.00		\$556.00
	Exploring popular literature with a focus on the horror genre.					

**ENG-261 LITERATURE OF SCIENCE FICTION, 4 CREDITS**

Explores historical, cultural, social, and literary significance of science fiction literature; places science fiction into the larger context of World literature and literary tradition. Considers how science fiction is often a lens to examine cultural themes such as gender, sexuality, race, and other ways that humans focus on difference; introduces theoretical approaches and basic literary elements and terminology.

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

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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

ONL	ENG-261-01	336481				
	N. ROSEVEAR	\$504.00	\$52.00	\$0.00		\$556.00

**ENG-270 INTRODUCTION TO LITERARY CRITICISM, 4 CREDITS**

Students will closely study famous literary texts through a variety of critical approaches such as structuralism, Feminist criticism, Psychoanalytic criticism, Marxist criticism, and queer theory.

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

ONL	ENG-270-01	336482				
	T. DONNELLY	\$504.00	\$52.00	\$0.00		\$556.00

**ENG-280 ENGLISH/CWE, 2-6 CREDITS**

Cooperative work experience. Provides students with on-the-job experience in the field of English studies. Required: Student Petition.

**Corequisites:** CWE-281

ONL LCT	ENG-280-01	336484				
	A. COFFEY	\$756.00	\$78.00	\$45.00		\$879.00V
	Required: Student Petition. Corequisite: Take 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	336490				
	A. COFFEY	\$126.00	\$13.00	\$0.00		\$139.00

**Environmental Science**

**ESR-173 INTRODUCTION TO SUSTAINABILITY, 4 CREDITS**

Introduction to environmental, ecological and human sustainability. Focus on human impacts on environmental degradation and methods to approach sustainability and environmental justice. The laboratory assignments will focus on applied introductory sustainability topics.

**Corequisites:** ESR-173L

**Recommended Prerequisites:** MTH-060 or MTH-098 with a C or better, or placement in MTH-065

**Recommended Prerequisites:** WRD-098

oc	ESR-173-01	336568	TTH			1-2:20 PM
	E. CAVALIERE	\$504.00	\$52.00	\$55.00		\$611.00
	Corequisite: Take 1 of the following ESR-173L-01, ESR-173L-02, ESR-173L-03.					

ONL	ESR-173-02	336570				
	E. CAVALIERE	\$504.00	\$52.00	\$55.00		\$611.00
	This section has an in-person lab requirement. Corequisite: Take 1 of the following ESR-173L-01, ESR-173L-02, ESR-173L-03.					

ONL	ESR-173-15	336572				
	E. CAVALIERE	\$504.00	\$52.00	\$55.00		\$611.00
	Corequisite: Take the following ESR-173L-15.					

**ESR-173L INTRODUCTION TO SUSTAINABILITY LAB, 0 CREDIT**

Lab course for ESR-173

**Corequisites:** ESR-173



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	<b>ESR-173L-01 336573 T</b> E. CAVALIERE Corequisite: Take 1 of the following ESR-173-01, ESR-173-02.					\$0.00	\$0.00	9-11:50 AM	\$0.00	\$0.00
OC	<b>ESR-173L-02 336574 W</b> E. CAVALIERE Corequisite: Take 1 of the following ESR-173-01, ESR-173-02.					\$0.00	\$0.00	1-3:50 PM	\$0.00	\$0.00
OC	<b>ESR-173L-03 336576 TH</b> E. CAVALIERE Corequisite: Take 1 of the following ESR-173-01, ESR-173-02.					\$0.00	\$0.00	2-5:20 PM	\$0.00	\$0.00
HAR	<b>ESR-173L-15 336578 TH</b> S. BALLEW Corequisite: Take the following ESR-173-15.					\$0.00	\$0.00	6-8:50 PM	\$0.00	\$0.00

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 336615</b> C. BAKER					\$378.00	\$39.00	\$0.00	\$0.00	\$417.00
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**HDF-260ES ENTENDER EL ABUSO Y LA NEGLIGENCIA INFANTIL, 3 CREDITS**

Este curso ofrece una descripción general del abuso y la negligencia infantil. Los estudiantes examinarán los tipos y las causas de abuso, como también el perfil típico de un niño abusado y de los padres abusivos. Se examinarán igualmente el tratamiento, la educación y prevención, y los recursos disponibles para ayudar a niños y familias. Se hace hincapié en la intervención y los informes obligatorios, así como en las investigaciones sobre el abuso y las consideraciones legales.

ONL ESPAÑOL	<b>HDF-260ES-01 336616</b> M. SWARTHOUT					\$378.00	\$39.00	\$0.00	\$0.00	\$417.00
ONL ESPAÑOL	<b>HDF-260ES-02 336617</b> M. SWARTHOUT					\$378.00	\$39.00	\$0.00	\$0.00	\$417.00

**Family Studies**

**HDF-140 CONTEMPORARY AMERICAN FAMILIES, 3 CREDITS**

This course focuses on the diversity of the American family today and a historical overview of changes in the family environment and structure. Topics will include internal/external factors that influence families such as parenting, culture, gender, divorce, remarriage, economics, and culture. Course has a focus on issues of equity, diversity, and inclusion.

OC HYB LCT	<b>HDF-140-01 336603 W</b> Y. SMITH Meets: 4/2, 4/16, 4/30, 5/14, 5/28.					\$378.00	\$39.00	\$0.00	\$0.00	\$417.00
ONL	<b>HDF-140-02 336607</b> Y. SMITH					\$378.00	\$39.00	\$0.00	\$0.00	\$417.00

**HDF-247 PRESCHOOL THROUGH ADOLESCENT CHILD DEVELOPMENT, 3 CREDITS**

This course focuses on principles of development in children three years old through adolescence, including physical, cognitive, language, and social and emotional growth. Explores major historical theories of child development and current research and practices. A focus on how culture, family dynamics, and socio-economic status impact growth and development are included.

**Prerequisites:** HDF-225

ONL	<b>HDF-247-01 336613</b> D. HENDRICKS This is an accelerated five-week online course which meets: 5/5 - 6/14.					\$378.00	\$39.00	\$0.00	\$0.00	\$417.00
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**HDF-247ES DESARROLLO Y CRECIMIENTO EN LA NIÑEZ: PREESCOLAR HASTA LA ADOLESCENCIA, 4 CREDITS**

Este curso se enfoca en los principios del desarrollo en niños de tres años hasta la adolescencia, incluyendo el crecimiento, y la evolución física, cognitiva, social y emocional. Explora las principales teorías históricas del desarrollo infantil y las investigaciones y prácticas actuales. Se incluye un enfoque en cómo la cultura, la dinámica familiar y el estatus socioeconómico impactan el crecimiento y el desarrollo de los niños.

**Prerequisites:** ECE-150ES, FYE-101ES, and HDF-225ES

REM ESPAÑOL	<b>HDF-247ES-01 340016 M</b> Y. SANCHEZ La clase se reúne cinco lunes por Zoom (4/7, 4/21, 5/5, 5/19, 6/12) de 6:00PM a 7:50PM.					\$504.00	\$52.00	\$0.00	\$0.00	\$556.00
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**HDF-260 UNDERSTANDING CHILD ABUSE AND NEGLECT, 3 CREDITS**

**Fire Science (Wildland)**

**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	<b>FRP-130-01 339932 T</b> J. GULLEY					\$252.00	\$26.00	\$50.00	\$0.00	\$328.00
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**FRP-131 ADVANCED FIREFIGHTER TRAINING (S-131/S-133), 1 CREDIT**

This course provides instruction that meets the training requirements for the Wildland Firefighter Type 1 position and/or Incident Commander Type 5 (ICT5).

**Prerequisites:** FRP-130 (S-130/S-190/L-180)

OC	<b>FRP-131-01 336236 SU</b> J. GULLEY Meets: 4/6-4/7.					\$126.00	\$13.00	\$20.00	\$0.00	\$159.00
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**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 HYB	<b>FRP-200-01 339933 TH</b> J. GULLEY					\$504.00	\$52.00	\$0.00	\$0.00	\$556.00
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**Campus Locations:**

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**Distance Education Notification:**

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- 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

**FRP-201 ADVANCED FOREST MANAGEMENT, 3 CREDITS**

Discuss and explore forest management concepts and principles through classroom lecture and field trips. Contrast forest management decisions made dependent on public or private landowner objections, economics and federal and state laws that provide for protection of soil, water, air, fish, and wildlife and consideration of recreation values.

**Prerequisites:** FRP-101 and FRP-102

oc	<b>FRP-201-01</b>	<b>339934 W</b>				<b>9-12:00 PM</b>
	G. CLINE	\$378.00	\$39.00	\$0.00		\$417.00

**FRP-211 PORTABLE PUMPS AND WATER USE (S-211), 2 CREDITS**

This course is designed to provide knowledge and skills to design, setup, operate, troubleshoot, and shut down portable water delivery systems. The focus is on portable pumps; it does not address water delivery for engines. There is also a field exercise where students will apply what they learned in the classroom.

**Prerequisites:** FRP-130 (S-130/S-190/L-180)

oc	<b>FRP-211-01</b>	<b>339935 FS</b>				<b>8-5:00 PM</b>
	J. GULLEY	\$252.00	\$26.00	\$50.00		\$328.00
	Meets: 4/11-4/12.					

**FRP-212 WILDFIRE POWER SAWS (S-212), 2 CREDITS**

The course lessons provide introduction to the function, maintenance, and use of internal combustion engine-powered chainsaws, and their tactical wildland fire application. Field exercises support entry-level training for firefighters with little or no previous experience in operating a chainsaw, providing hands-on cutting experience in surroundings similar to fireline situations. Required: Student Petition.

**Prerequisites:** FRP-130 (S-130/S-190/L-180), FRP-250

**Required:** Students must be at least 18 years of age. Must have current first aid, CPR and AED certification

oc	<b>FRP-212-01</b>	<b>336241 MFSSU</b>				<b>8-5:00 PM</b>
	J. GULLEY	\$252.00	\$26.00	\$225.00		\$503.00
	Meets: 5/2-5/5.					
oc	<b>FRP-212-02</b>	<b>340178 M</b>				<b>8-12:00 PM</b>
	J. GULLEY	\$252.00	\$26.00	\$225.00		\$503.00

**FRP-249 FOLLOWERSHIP TO LEADERSHIP (L-280), 2 CREDITS**

The course prepares the student for a basic field operations leadership role. Students will be able demonstrate basic leadership skills through interactive classroom discussions and scenario based exercises.

oc	<b>FRP-249-01</b>	<b>336250 MSU</b>				<b>8-5:00 PM</b>
	J. GULLEY	\$252.00	\$26.00	\$30.00		\$308.00
	Meets: 4/27-4/28.					

**FRP-255 PHYSICAL FITNESS AND NUTRITION FOR FIRST RESPONDERS, 2 CREDITS**

This course will assist the student in meeting the physical fitness requirements for work in firefighting, and emergency medical services. Includes individual conditioning strategies, nutritional guidelines, basic exercise principles, pre-employment and lifelong fitness and conditioning. The course will prepare students for activities like the Candidate Physical Abilities Test (CPAT), work capacity test and other physical ability tests required for first responders. May be repeated for up to 6 credits.

**Required:** Complete a physical performed by a licensed physician prior to attending

**Recommended:** Have adequate outdoor exercise attire and be prepared for arduous physical activity

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

**Distance Education Notification:**  
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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>FRP-255-01</b>	<b>340179 WTH</b>				<b>8-10:00 AM</b>
	J. GULLEY	\$252.00	\$26.00	\$0.00		\$278.00

**FRP-270 BASIC AIR OPERATIONS (S-270), 1 CREDIT**

The course introduces students to basic air operations including the different types of aircraft used in wildland firefighting operations along with mission planning, risk management, safety, and communications.

oc	<b>FRP-270-01</b>	<b>336255 TH</b>				<b>12:30 -2:00 PM</b>
	J. GULLEY	\$126.00	\$13.00	\$30.00		\$169.00

**FRP-290 INTERMEDIATE WILDLAND FIRE BEHAVIOR (S-290), 3 CREDITS**

This course provides the student with the basic skills to determine the characteristics of fuels(vegetation) when involved in a wildland fire, the effects weather has on a wildland fire, the various topographic features that impact wildland fire and the fire behavior patterns of a wildland fire.

**Prerequisites:** FRP-130 (S-130/S-190/L-180)

oc	<b>FRP-290-01</b>	<b>339931 SSU</b>				<b>8-5:00 PM</b>
	B. REID	\$378.00	\$39.00	\$50.00		\$467.00
	Meets: 4/5, 4/6, 4/12, and 4/13.					

**First Year Experience (FYE)**

**FYE-101 FIRST YEAR EXPERIENCE LEVEL I, 2 CREDITS**

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>336497 MW</b>				<b>9-9:50 AM</b>
	D. GREEN	\$0.00	\$0.00	\$93.00		\$93.00
oc	<b>FYE-101-03</b>	<b>336504 T</b>				<b>9-10:50 AM</b>
	C. SIMS	\$0.00	\$0.00	\$93.00		\$93.00
ONL	<b>FYE-101-04</b>	<b>336508</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>336515 M</b>				<b>5-6:50 PM</b>
	S. DIAZ-ZAVALA	\$0.00	\$0.00	\$93.00		\$93.00

**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.

**Other Coding Translations:**  
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**VAR:** Variable credit class

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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>FN-110-01 335866</b>		T. SCOLLARD			\$378.00	\$39.00	\$82.25		\$499.25
	Online textbook included in section fees.									

**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 335867</b>		T. SCOLLARD			\$504.00	\$52.00	\$105.84		\$661.84
	Online textbook included in section fees.									
ONL	<b>FN-225-02 335868</b>		J. PAVLINAC			\$504.00	\$52.00	\$105.84		\$661.84
	Online textbook included in section fees. Contact: health-sciences-questions@clackamas.edu.									

**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 LCT ESPAÑOL	<b>GED-011-01 336528 MW</b>							<b>5:30 -7:50 PM</b>		
	A. ARISTIZABAL	\$0.00	\$0.00	\$50.00	\$50.00	Requerido: petición del estudiante. For registration information contact Adriana Aristizabal at 503-594-3916 or register at first class.				
HAR LCT ESPAÑOL	<b>GED-011-02 336532 TTH</b>							<b>6-8:50 PM</b>		
	C. SANCHEZ	\$0.00	\$0.00	\$50.00	\$50.00	Requerido: petición del estudiante.				

**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.

HAR HYB LCT	<b>GED-015-67 336538 MW</b>							<b>10-11:50 AM</b>		
	M. NICKAS	\$0.00	\$0.00	\$55.00	\$55.00	Required: Student Petition.				
ONL LCT	<b>GED-015-68 336540</b>									
	S. HATSWELL	\$0.00	\$0.00	\$55.00	\$55.00	Required: Student Petition.				

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ONL LCT	<b>GED-015-69 336541</b>		A. SMITH			\$0.00	\$0.00	\$55.00		\$55.00
	Required: Student Petition.									
OC LCT	<b>GED-015-80 336542 MTWTH</b>		J. NIELSON			\$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.

REM LCT ESPAÑOL	<b>GED-049-02 336545 TTH</b>							<b>6-8:50 PM</b>		
	A. ARISTIZABAL	\$0.00	\$0.00	\$50.00	\$50.00	Requerido: petición del estudiante.				
HAR LCT ESPAÑOL	<b>GED-049-03 336548 MW</b>							<b>9-11:50 AM</b>		
	C. SANCHEZ	\$0.00	\$0.00	\$50.00	\$50.00	Requerido: petición del estudiante. For registration information contact Camilo Sanchez at 503-594-3029 or register at first class.				
HAR LCT ESPAÑOL	<b>GED-049-04 336550 S</b>							<b>9-11:50 AM</b>		
	M. ROSAS DELGADO	\$0.00	\$0.00	\$30.00	\$30.00	Requerido: petición del estudiante.				
HAR LCT ESPAÑOL	<b>GED-049-04NF 336551 S</b>							<b>9-11:50 AM</b>		
	M. ROSAS DELGADO	\$0.00	\$0.00	\$0.00	\$0.00	Requerido: petición del estudiante.				

**General Science**

**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	<b>GS-107-40 336602</b>		T. STUFFLEBEAM			\$504.00	\$52.00	\$25.00		\$581.00
	Corequisite: Take the following GS-107L-40.									

**GS-107L ASTRONOMY LAB, 0 CREDIT**

Lab course for GS-107

**Corequisites:** GS-107

ONL	<b>GS-107L-40 336604</b>		T. STUFFLEBEAM			\$0.00	\$0.00	\$0.00		\$0.00
	Corequisite: Take the following GS-107-40.									

**Geographic Information Systems**

*All degree seeking students should arrange to speak to a faculty advisor prior to registering. Call 503-594-3678 for more information, or contact Advising, 503-594-3475.*

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>GIS-101</b>	<b>PRINCIPLES OF GEOSPATIAL TECHNOLOGY, 2 CREDITS</b>					
<p>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.</p>						
ONL LCT	<b>GIS-101-01</b>	<b>339936</b>				
	A. ARMEN	\$252.00	\$26.00	\$30.00		\$308.00

<b>GIS-232</b>	<b>DATA COLLECTION &amp; APPLICATION, 2 CREDITS</b>					
<p>This course introduces data collection techniques and application of those techniques. This course explores different techniques to collect spatial and attribute data. The class focuses on GPS (Global Positioning System) data collection using a combination of recreational/mapping-grade GPS units and standard mobile devices (with embedded GPS) used in industry. The class will emphasize the capabilities and strengths of each type of data collection equipment.</p>						
<b>Prerequisites:</b> GIS-101						
ONL	<b>GIS-232-01</b>	<b>336257</b>				
	A. KELLEY	\$252.00	\$26.00	\$30.00		\$308.00

<b>GIS-286</b>	<b>REMOTE SENSING, 3 CREDITS</b>					
<p>This course is an introduction to the science of remote sensing. The course explores the techniques used to acquire, interpret, and process remotely sensed data. It provides a historical analysis of the technology, the interpretation of remotely sensed data, and the use of remote sensing data in GIS. Active and passive systems are explored as well as methodologies to transform and rectify remotely sensed raster data. Students explore applications of remote sensing using real-world examples and data.</p>						
<b>Prerequisites:</b> GIS-201						
REM	<b>GIS-286-01</b>	<b>336261</b>	<b>TTH</b>	<b>5-7:50 PM</b>		
	A. ARMEN	\$378.00	\$39.00	\$20.00		\$437.00

## Geography

<b>GEO-110</b>	<b>CULTURAL &amp; HUMAN GEOGRAPHY, 4 CREDITS</b>					
<p>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.</p>						
<b>Recommended Prerequisites:</b> WRD-090 or placement in WRD-098						
ONL LCT	<b>GEO-110-01</b>	<b>336554</b>				
	C. FELDMAN	\$504.00	\$52.00	\$0.00		\$556.00
Online textbook provided first day of class.						
<b>GEO-130</b>	<b>INTRODUCTION TO ENVIRONMENTAL GEOGRAPHY, 4 CREDITS</b>					
<p>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.</p>						
<b>Recommended Prerequisites:</b> WRD-090 or placement in WRD-098						
ONL	<b>GEO-130-01</b>	<b>336557</b>				
	A. ARMEN	\$504.00	\$52.00	\$109.99		\$665.99
Online textbook included in section fees.						

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Instructor	Tuition	Fee	Crs. Fee			

<b>GEO-208</b>	<b>GEOGRAPHY OF THE UNITED STATES &amp; CANADA, 4 CREDITS</b>					
<p>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.</p>						
<b>Recommended Prerequisites:</b> WRD-090 or placement in WRD-098						
ONL	<b>GEO-208-01</b>	<b>338067</b>				
	C. FELDMAN	\$504.00	\$52.00	\$0.00		\$556.00

<b>GEO-280</b>	<b>GEOGRAPHY/CWE, 2-6 CREDITS (VAR)</b>					
<p>Cooperative work experience. Provides students with on-the-job work experience in the field of geography. Required: Student Petition.</p>						
<b>Corequisites:</b> CWE-281						
oc	<b>GEO-280-01</b>	<b>336559</b>				
	C. FELDMAN	\$756.00	\$78.00	\$45.00		\$879.00V
	D. LOUGEE					
Required: Student Petition. Corequisite: Take the following CWE-281-06.						

## Geology

<b>G-103</b>	<b>GENERAL GEOLOGY, 4 CREDITS</b>					
<p>For non-science majors. A lab course that examines the geological development of the North American continent through topics such as geologic time, plate tectonics, mountain building earthquakes/faults, and fossils. Examines important events in each geologic era and includes fossil ID, compass use, field techniques and GPS.</p>						
<b>Corequisites:</b> G-103L						
<b>Recommended Prerequisites:</b> WRD-090 or placement in WRD-098						
OC HYB LCT	<b>G-103-01</b>	<b>336579</b>	<b>MW</b>	<b>3-4:20 PM</b>		
	A. KOTASH	\$504.00	\$52.00	\$50.00		\$606.00
Corequisite: Take 1 of the following G-103L-01, G-103L-02.						
oc	<b>G-103-02</b>	<b>336581</b>	<b>TTH</b>	<b>10-11:20 AM</b>		
	B. WALKER	\$504.00	\$52.00	\$50.00		\$606.00
Corequisite: Take 1 of the following G-103L-01, G-103L-02.						
HAR LCT	<b>G-103-20</b>	<b>336583</b>	<b>T</b>	<b>6-8:50 PM</b>		
	J. WOODCOCK	\$504.00	\$52.00	\$50.00		\$606.00
Corequisite: Take the following G-103L-20.						

<b>G-103L</b>	<b>GENERAL GEOLOGY LAB, 0 CREDIT</b>					
Lab course for G-103						
<b>Corequisites:</b> G-103						
OC LCT	<b>G-103L-01</b>	<b>336585</b>	<b>T</b>	<b>1-3:50 PM</b>		
	A. KOTASH	\$0.00	\$0.00	\$0.00		\$0.00
Corequisite: Take 1 of the following G-103-01, G-103-02.						
OC LCT	<b>G-103L-02</b>	<b>336587</b>	<b>TH</b>	<b>1-3:50 PM</b>		
	B. WALKER	\$0.00	\$0.00	\$0.00		\$0.00
Corequisite: Take 1 of the following G-103-01, G-103-02.						
HAR LCT	<b>G-103L-20</b>	<b>336590</b>	<b>TH</b>	<b>6-8:50 PM</b>		
	J. WOODCOCK	\$0.00	\$0.00	\$0.00		\$0.00
Corequisite: Take the following G-103-20.						

<b>G-203</b>	<b>GENERAL GEOLOGY, 4 CREDITS</b>					
<p>For science majors. A lab course that examines the geological development of the North American continent through topics such as geologic time, plate tectonics, mountain building earthquakes/faults, and fossils. Examines important events in each geologic era and includes fossil ID, compass use, field techniques and GPS.</p>						



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:** G-202 with a C or better  
**Corequisites:** G-203L  
**Recommended Prerequisites:** MTH-065 or placement in MTH-080 or MTH-095

OC HYB LCT	<b>G-203-01</b>	<b>336591 MW</b>			<b>3-4:20 PM</b>	
	A. KOTASH	\$504.00	\$52.00	\$50.00	\$606.00	
	Corequisite: Take 1 of the following G-203L-01, G-203L-02.					
OC	<b>G-203-02</b>	<b>336593 TTH</b>			<b>10-11:20 AM</b>	
	B. WALKER	\$504.00	\$52.00	\$50.00	\$606.00	
	Corequisite: Take 1 of the following G-203L-01, G-203L-02.					
HAR LCT	<b>G-203-20</b>	<b>336595 T</b>			<b>6-8:50 PM</b>	
	J. WOODCOCK	\$504.00	\$52.00	\$50.00	\$606.00	
	Corequisite: Take the following G-203L-20.					

**G-203L GENERAL GEOLOGY LAB, 0 CREDIT**

Lab course for G-203

**Corequisites:** G-203

OC LCT	<b>G-203L-01</b>	<b>336596 T</b>			<b>1-3:50 PM</b>	
	A. KOTASH	\$0.00	\$0.00	\$0.00	\$0.00	
	Corequisite: Take 1 of the following G-203-01, G-203-02.					
OC LCT	<b>G-203L-02</b>	<b>336598 TH</b>			<b>1-3:50 PM</b>	
	B. WALKER	\$0.00	\$0.00	\$0.00	\$0.00	
	Corequisite: Take 1 of the following G-203-01, G-203-02.					
HAR LCT	<b>G-203L-20</b>	<b>336600 TH</b>			<b>6-8:50 PM</b>	
	J. WOODCOCK	\$0.00	\$0.00	\$0.00	\$0.00	
	Corequisite: Take the following G-203-20.					

**Gerontology**

**GRN-183 DEATH AND DYING, 3 CREDITS**

Introduces effective interaction with those experiencing death or grief process. Includes: historical and cross cultural perspectives, funeral and death rites, grief across the lifespan, hospice and palliative care, ethical considerations and physician aid in dying.

ONL LCT	<b>GRN-183-01</b>	<b>335848</b>				
	Y. SMITH	\$378.00	\$39.00	\$0.00	\$417.00	

**GRN-280 GERONTOLOGY/CWE, 2-6 CREDITS (VAR)**

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. May be repeated for up to 6 credits. Required: Student Petition.

**Prerequisite or Corequisite:** HS-170

**Corequisites:** HS-270

HAR	<b>GRN-280-01</b>	<b>335850</b>				
	J. LOVELESS	\$756.00	\$78.00	\$45.00	\$879.00V	
	Required: Student Petition.					

**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.

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**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  
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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

ONL	<b>HE-163-01</b>	<b>336605</b>				
	T. PANTAGES	\$378.00	\$39.00	\$0.00	\$417.00	
ONL	<b>HE-163-02</b>	<b>336606</b>				
	T. PANTAGES	\$378.00	\$39.00	\$0.00	\$417.00	

**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

ONL	<b>HE-164-01</b>	<b>336608</b>				
	T. PANTAGES	\$378.00	\$39.00	\$0.00	\$417.00	

**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>	<b>336610</b>				
	T. NELSON	\$378.00	\$39.00	\$0.00	\$417.00	

**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>	<b>336612</b>				
	J. BUEL	\$378.00	\$39.00	\$0.00	\$417.00	

**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>	<b>336619</b>				
	T. NELSON	\$378.00	\$39.00	\$0.00	\$417.00	

**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>	<b>336621</b>				
	J. BUEL	\$378.00	\$39.00	\$0.00	\$417.00	

**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>	<b>336622 MW</b>			<b>1-2:20 PM</b>	
	K. WOODS	\$378.00	\$39.00	\$0.00	\$417.00	

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

**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.

ONL	<b>HE-250-02</b>	<b>336627</b>				
	J. RHODEN		\$378.00	\$39.00	\$0.00	\$417.00
ONL	<b>HE-250-03</b>	<b>336629</b>				
	J. RHODEN		\$378.00	\$39.00	\$0.00	\$417.00
	Meets: 5/11-6/14.					

**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>	<b>336631</b>				
	K. WOODS		\$378.00	\$39.00	\$35.00	\$452.00
ONL	<b>HE-252-02</b>	<b>336632</b>				
	K. ARIZO		\$378.00	\$39.00	\$35.00	\$452.00
ONL	<b>HE-252-04</b>	<b>336633</b>				
	T. NELSON		\$378.00	\$39.00	\$35.00	\$452.00

**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. May be repeated for up to 12 credits. Required: Student Petition.

**Corequisites:** CWE-281

ONL	<b>HE-280-01</b>	<b>336634</b>				
	T. NELSON		\$756.00	\$78.00	\$45.00	\$879.00
	Required: Student Petition. Review the registration process and complete the online application to the program at <a href="http://www.clackamas.edu/CWE-Students.aspx">http://www.clackamas.edu/CWE-Students.aspx</a> prior to registering. Corequisite: Take 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>	<b>336676</b>				
	J. RHODEN		\$378.00	\$39.00	\$30.00	\$447.00

## Health Professions

**HP-100 HEALTHCARE PROVIDER BLS/CPR, FIRST AID/BLOODBORNE PATHOGENS, 1 CREDIT**

**Campus Locations:**  
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	Instructor		Tuition	Fee	Crs. Fee	

Introduces CPR, first aid, and bloodborne pathogens to individuals working in healthcare environments, home, and community settings. Covers skills to perform CPR and operate an Automatic External Defibrillator (AED) for adults/children/infants. Includes citizen-level first aid for providing initial care to persons injured or stricken by sudden illness where help is not immediately available. Covers how to minimize communicable disease transmission while providing emergency care.

**Recommended:** Computer access with internet capabilities  
**Recommended Prerequisites:** WRD-098

HAR HYB	<b>HP-100-01</b>	<b>340186 TBA</b>				
	S. COOPER		\$126.00	\$13.00	\$15.00	\$154.00
	Additional costs associated with this course include: \$22 Bloodborne Pathogens Certificate, \$36 CPR Card, \$16.50 First Aid Certificate for a total of \$74.50 additional cost. The section will meet for four hours on a date TBD. More information will be given in the first couple weeks of class.					

**HP-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.

ONL	<b>HP-110-01</b>	<b>337507</b>				
	T. BOYD		\$504.00	\$52.00	\$60.00	\$616.00
ONL	<b>HP-110-02</b>	<b>337508</b>				
	T. BOYD		\$504.00	\$52.00	\$60.00	\$616.00
ONL	<b>HP-110-03</b>	<b>337509</b>				
	T. BOYD		\$504.00	\$52.00	\$60.00	\$616.00

**HP-120 INTRODUCTION TO HEALTH SCIENCES, 3 CREDITS**  
 This course introduces students to Career Technical Education (CTE) Programs within Health Professions and prepares students for next steps in applying for competitive program entry.

**Prerequisites:** WRD-098 or placement in WR-101

ONL	<b>HP-120-01</b>	<b>340184</b>				
	S. DAVENPORT		\$378.00	\$39.00	\$0.00	\$417.00

## High School Diploma (AHSD)

*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**  
 High school credit only. 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 LCT	<b>ASE-042-03</b>	<b>336211 M</b>				
	M. TIZO		\$0.00	\$0.00	\$0.00	\$0.00
	Required: Student Petition.					

**Other Coding Translations:**  
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**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

**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.

<b>HAR HYB LCT</b>	<b>XASE-0001-03 336993 MW</b>					<b>10-11:50 AM</b>
	L. NIELSON	\$0.00	\$0.00	\$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

<b>ONL LCT</b>	<b>HST-101-01 336635</b>					
	P. MCFARLAND	\$504.00	\$52.00	\$0.00	\$556.00	

Online textbook provided first day of class.

**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

<b>OC HYB LCT</b>	<b>HST-103-01 336640 W</b>					<b>10-11:50 AM</b>
	P. MCFARLAND	\$504.00	\$52.00	\$0.00	\$556.00	

Online textbook provided first day of class.

<b>ONL LCT</b>	<b>HST-103-02 338068</b>					
	P. MCFARLAND	\$504.00	\$52.00	\$0.00	\$556.00	

Online textbook provided first day of class.

**HST-132 HISTORY OF LANGUAGE AND THE WRITTEN WORD IN WESTERN CIVILIZATION, 4 CREDITS**

Explores the topics of language and the written word 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

<b>ONL</b>	<b>HST-132-01 336642</b>					
	P. MCFARLAND	\$504.00	\$52.00	\$0.00	\$556.00	

**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

<b>ONL</b>	<b>HST-201-01 336644</b>					
	J. FLOWERS	\$504.00	\$52.00	\$59.41	\$615.41	

Online textbook included in section fees.

**HST-203 HISTORY OF THE UNITED STATES, 4 CREDITS**

Covers the period of United States history since and including WWI.

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		Instructor		Tuition	Fee	Crs. Fee

**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

<b>OC</b>	<b>HST-203-01 336646 TTH</b>					<b>10-11:50 AM</b>
	J. FLOWERS	\$504.00	\$52.00	\$59.41	\$615.41	

Online textbook included in section fees.

<b>ONL</b>	<b>HST-203-02 336649</b>					
	J. FLOWERS	\$504.00	\$52.00	\$59.41	\$615.41	

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. Required: Student Petition.

**Corequisites:** CWE-281

<b>OC</b>	<b>HST-280-01 336651</b>					
	J. FLOWERS	\$756.00	\$78.00	\$45.00	\$879.00V	

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

**Horticulture/Arboriculture/Landscape/Organic Farming**

For more information call 503-594-3292 or email [horticulture@clackamas.edu](mailto:horticulture@clackamas.edu)

**HOR-112 HORTICULTURE CAREER EXPLORATION, 2 CREDITS**

This course is a survey of the various career options available to students in the horticulture industry, with emphasis on nursery and greenhouse production, retail nursery, organic fruit and vegetable production, and landscape maintenance/installation. Includes field trips to local businesses. Oregon State University transfer course.

<b>OC LCT</b>	<b>HOR-112-01 336636 TH</b>					<b>1-3:50 PM</b>
	F. KILDERS	\$252.00	\$26.00	\$50.00	\$328.00	

Meets: Thursdays 4/3-5/22.

**HOR-120 PESTICIDE LAWS & SAFETY, 1 CREDIT**

This course engages students with the laws, regulations, and best management practices used to control pests, weeds, and diseases. Focus on applicator safety, environmental protection, and storage and handling requirements. Prepares students to sit for the Oregon Pesticide Laws & Safety exam.

<b>ONL LCT</b>	<b>HOR-120-01 336638</b>					
	J. WENTWORTH-PLATO	\$126.00	\$13.00	\$50.00	\$189.00	

Meets: Online 3/31-5/4.

**HOR-123 LANDSCAPE MAINTENANCE, 3 CREDITS**

Principles and practices of sustainable landscape maintenance, plant growth and development, soil-water-fertilizer management, pruning, turf, pest control, diagnosis of problems in trees and shrubs, and maintenance scheduling.

<b>OC</b>	<b>HOR-123-01 336639 W</b>					<b>8-11:50 AM</b>
	A. CHASTAIN	\$378.00	\$39.00	\$40.00	\$457.00	

**HOR-135 PROPAGATION OF EDIBLE PLANTS, 3 CREDITS**

Reproduce food plants using a variety of methods, including seed, cutting and grafting techniques. Instruction will focus on methods suitable for sustainable farm operations.

**Other Coding Translations:**  
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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 LCT	<b>HOR-135-01</b> G. LOEFFLER	<b>336641 W</b>		<b>8-11:50 AM</b>	\$378.00 \$39.00 \$70.00 \$487.00

**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> D. FRANEK	<b>336643 W</b>		<b>1-3:50 PM</b>	\$378.00 \$39.00 \$65.00 \$482.00
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**HOR-141 ORGANIC FARMING PRACTICUM/SPRING, 4 CREDITS**

Essential organic farming practices, including seasonal activities such as production of transplants, direct seeding, pest, disease, and weed management strategies, bed preparation, equipment operations, and soil, water and fertilizer management. Class lecture, field trips, and lab are all included in this course. This format has been selected to create a hands-on experience for each student in seasonal crop production.

OC LCT	<b>HOR-141-01</b> D. ROSTAD	<b>336645 TTH</b>		<b>8-11:50 AM</b>	\$504.00 \$52.00 \$80.00 \$636.00
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**HOR-142 GREENHOUSE II, 3 CREDITS**

Detailed study of environmental influences on individual crops, their requirements, scheduling, including annual, biennial, and perennial plant production.

**Prerequisites:** HOR-122

oc	<b>HOR-142-01</b> F. KILDERS	<b>336647 TH</b>		<b>8-11:50 AM</b>	\$378.00 \$39.00 \$50.00 \$467.00
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**HOR-143 HORTICULTURE PRACTICUM/SPRING, 2 CREDITS**

Practical experience with seasonal (spring) horticulture activities in the areas of container nurseries, greenhouses, and landscape management.

**Prerequisites:** HOR-133

oc	<b>HOR-143-01</b> A. CHASTAIN F. KILDERS	<b>336648 F M</b>		<b>11:30 -4:30 PM</b> <b>8-11:50 AM</b>	\$252.00 \$26.00 \$50.00 \$328.00
	Required attendance on Friday 5/9.				

**HOR-214 ORGANIC CUT FLOWER FARMING, 2 CREDITS**

Essential organic flower farming techniques, including seasonal activities such as planning, propagation of cut flowers, transplanting, direct seeding, weeding, harvesting, bed preparation, and soil, water, and fertilizer management as they pertain to cut flower growing. Class lecture, field trips, and lab are all included in this course. This format has been selected to create a hands-on experience for each student in producing cut flowers for market.

OC HYB	<b>HOR-214-01</b> D. ROSTAD	<b>340259 F</b>		<b>8-11:50 AM</b>	\$252.00 \$26.00 \$40.00 \$318.00
	Hybrid. Meets: Fridays 5/16-6/13; additional hours online.				

**HOR-215 HERBACEOUS PERENNIALS, 3 CREDITS**

The identification, propagation, selection and garden culture as well as individual attributes of herbaceous perennial plants, including the evolution of perennial garden design and current gardening styles. Oregon State University transfer course.

oc	<b>HOR-215-01</b> L. BEUTLER	<b>336650 T</b>		<b>1-4:50 PM</b>	\$378.00 \$39.00 \$45.00 \$462.00
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**HOR-228 PLANT IDENTIFICATION/SPRING, 4 CREDITS**

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>HOR-228-01</b> F. KILDERS	<b>336652 T</b>		<b>8-11:50 AM</b>	\$504.00 \$52.00 \$45.00 \$601.00

OC HYB LCT	<b>HOR-228-02</b> J. WENTWORTH-PLATO	<b>336653 W</b>		<b>6-8:30 PM</b>	\$504.00 \$52.00 \$25.00 \$581.00
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**HOR-234 ADVANCED LANDSCAPE DESIGN, 3 CREDITS**

Further skill development in drawing, site analysis, and design, including two & three dimensional design concepts. Graphic exercises will be included as well as the study of creative and practical solutions for various site and program requirements of small commercial and residential landscape sites.

**Prerequisites:** HOR-229

**Recommended Prerequisites:** Prior Plant ID knowledge or HOR-226, HOR-227, and HOR-228

OC HYB LCT	<b>HOR-234-01</b> M. MELCO	<b>337969 T</b>		<b>6-8:50 PM</b>	\$378.00 \$39.00 \$45.00 \$462.00
	On campus labs Tuesdays 4/1, 5/6, 6/10, all other dates Remote at time listed.				

**HOR-240 IRRIGATION PRACTICES, 3 CREDITS**

Materials, equipment, and methods used to install and repair irrigation systems in landscape areas.

**Recommended Prerequisites:** HOR-231

OC HYB LCT	<b>HOR-240-01</b> A. CHASTAIN G. KUNKLE	<b>336655 W</b>		<b>6-8:50 PM</b>	\$378.00 \$39.00 \$45.00 \$462.00
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**HOR-246 ORGANIC GARDENING, 2 CREDITS**

Growing organically addresses two of today's common concerns: health and sustainability. Learn organic gardening skills like how to create a garden plan, build healthy soil, make and use your own compost, add fertility with cover crops, choose the best crop varieties for our region, and practice proper planting and harvest techniques. This class is great for beginners, and gardeners who are looking to take their skills to a deeper level.

OC LCT	<b>HOR-246-01</b> G. LOEFFLER	<b>336658 M</b>		<b>1-4:50 PM</b>	\$252.00 \$26.00 \$50.00 \$328.00
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**HOR-249 LANDSCAPE BIDDING AND ESTIMATING, 1 CREDIT**

This class is an introduction to bidding and estimating landscape projects. Students will interpret and measure landscape plans in order to perform take-offs and calculate quantities of materials needed; calculate direct costs using price lists and production rates; calculate and analyze overhead costs, net and gross profit margins, and break-even points; and review computer software options.

**Recommended Prerequisite or Corequisite:** HOR-123 or HOR-224

oc	<b>HOR-249-01</b> A. CHASTAIN	<b>336659 M</b>		<b>3-4:50 PM</b>	\$126.00 \$13.00 \$15.00 \$154.00
	Meets: Mondays 3/31-4/28.				

**HOR-250 ORGANIC HERB GROWING, 1 CREDIT**

Study of herb propagation, growing, and use. Identification of herbs, planning, site requirements and care of plants are covered. Learn how to plan for garden, small-scale, and larger farm production.

**Campus Locations:**  
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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	
OC LCT	<b>HOR-250-01</b>	<b>336660 F</b>			<b>8-11:50 AM</b>	OC	<b>HOR-282-01</b>	<b>336667</b>				
	D. ROSTAD		\$126.00	\$13.00	\$30.00		G. LOEFFLER		\$378.00	\$39.00	\$45.00	\$462.00
	Meets: Fridays 4/4-5/2.						Required: Student Petition. Contact: gentiana.loeffler@clackamas.edu. Corequisite: Take the following CWE-281-06.					
<b>HOR-261 TREE DIAGNOSTICS, 2 CREDITS</b>						<b>HOR-285 ORGANIC FARMING/CWE, 3 CREDITS</b>						
Theory and practice in diagnosing specific biotic and abiotic causes of poor tree health. Includes identification of symptoms, use of monitoring tools and effective customer communications.						On-the-job experience working with an agricultural business/farm. Students are expected to work a minimum of 90 job site hours. May be repeated for up to 6 credits. Required: Student Petition.						
<b>Prerequisites:</b> HOR-120, HOR-216, HOR-225. HOR-236 or HOR-237						<b>Corequisites:</b> CWE-281						
OC LCT	<b>HOR-261-01</b>	<b>336661 TH</b>			<b>1-4:50 PM</b>	<b>Required:</b> Students are expected to work a minimum of 90 job site hours	OC	<b>HOR-285-01</b>	<b>336674</b>			
	J. WENTWORTH-		\$252.00	\$26.00	\$90.00		G. LOEFFLER		\$378.00	\$39.00	\$45.00	\$462.00
	PLATO						Required: Student Petition. Contact: gentiana.loeffler@clackamas.edu. Corequisite: Take the following CWE-281-06.					
	If you have arboriculture industry experience and wish to take this class, contact jimwp@clackamas.edu.											
<b>HOR-263 PLANT HEALTH CARE PRACTICUM, 2 CREDITS</b>						<b>XHOR-0005 FRUIT TREE GRAFTING: BEGINNING, 0 CREDIT</b>						
Experience best management practices in Plant Health Care for trees and shrubs of the Pacific Northwest. Synthesize information from prerequisite courses to evaluate work sites for risk, plant health, and pathogens. Propose maintenance schedules and adapt them based on customer interaction. Working as a team, maintain landscapes on CCC properties using hand and power tools such as shears, saws, mowers, chippers, and sprayers.						Hands-on explanation and practice in bench grafting of fruit trees under the supervision of experienced HOEC grafters. Each student will leave the workshop with a grafted apple tree on dwarf rootstock.						
<b>Prerequisites:</b> HOR-115, HOR-131 and HOR-216. HOR-236 or HOR-237												
OC LCT	<b>HOR-263-01</b>	<b>336662 M</b>			<b>8-11:50 AM</b>	OC	<b>XHOR-0005-</b>	<b>336904 S</b>			<b>9:30 -11:30 AM</b>	
	J. WENTWORTH-		\$252.00	\$26.00	\$95.00		<b>01</b>				T. LORDY	
	PLATO						Required: Student Petition. Meets: Saturday 4/5. Register at <a href="https://bit.ly/horteventbrite">https://bit.ly/horteventbrite</a> Fee: \$40. Contact Loretta at lorettam@clackamas.edu with questions.					
<b>HOR-280 HORTICULTURE/CWE, 3 CREDITS</b>						<b>XHOR-0005-</b>						
On-the-job experience in the student's major course of study. Students are expected to work a minimum of 90 job site hours. May be repeated for up to 6 credits. Required: Student Petition.						<b>02</b>						
<b>Corequisites:</b> CWE-281						T. LORDY						
OC	<b>HOR-280-01</b>	<b>336663</b>					Required: Student Petition. Meets: Saturday 4/5. Register at <a href="https://bit.ly/horteventbrite">https://bit.ly/horteventbrite</a> Fee: \$40. Contact Loretta at lorettam@clackamas.edu with questions.					
	G. LOEFFLER		\$378.00	\$39.00	\$45.00							
	Required: Student Petition. Contact: gentiana.loeffler@clackamas.edu. Corequisite: Take the following CWE-281-06.											
<b>HOR-281 HORTICULTURE/CWE, 6 CREDITS</b>						<b>XHOR-0026 LANDSCAPE IRRIGATION SYSTEM INSTALLATION &amp; MAINTENANCE, 0.80 CEUS</b>						
On-the-job experience in the student's major course of study. Students are expected to work a minimum of 180 job site hours. May be repeated for up to 12 credits. Required: Student Petition.						Learn the basics of hydraulics and irrigation system installation and maintenance. This full-day learning session covers an overview of irrigation system components and how they operate. Learn about solvent welding and repairing PVC pipe, installing nozzles and adjusting heads, setting and repairing electric valves, and field and controller wiring techniques. Combined with industry experience, this class serves as a review for those planning to take the Irrigation Association (IA) Certified Irrigation Technician exam.						
<b>Corequisites:</b> CWE-281												
OC	<b>HOR-281-01</b>	<b>336665</b>				OC	<b>XHOR-C026-</b>	<b>336913 S</b>			<b>8-5:00 PM</b>	
	G. LOEFFLER		\$756.00	\$78.00	\$45.00		<b>01</b>				K. MCCALED	
	Required: Student Petition. Contact: gentiana.loeffler@clackamas.edu. Corequisite: Take the following CWE-281-06.						Required: Student Petition. Meets: Saturday 4/12. Register at <a href="https://bit.ly/horteventbrite">https://bit.ly/horteventbrite</a> Fee: \$80. Contact Loretta Mills at lorettam@clackamas.edu with questions.					
<b>HOR-282 HORTICULTURE/CWE, 3 CREDITS</b>						<b>XHOR-C036 LANDSCAPE BOULDER SETTING, 0.40 CEUS</b>						
On-the-job experience in the student's major course of study. Students are expected to work a minimum of 90 job site hours. May be repeated for up to 6 credits. Required: Student Petition.						Learn the art of boulder setting for landscapes with Masa Mizuno, a highly-respected master of Japanese garden cultivation. He has worked for decades with established Japanese gardens throughout the Pacific Northwest, and has led his own landscape design/install firm for over 30 years. This workshop is intended to train your eye to view and then place boulders in an artistic way. Participants will be working outdoors with boulders. Wear appropriate clothing, closed toed shoes and bring gloves.						
<b>Corequisites:</b> CWE-281												
<b>Required:</b> Students are expected to work a minimum of 90 job site hours												

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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	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>XHOR-C036-01</b> M. MIZUNO Required: Student Petition. Meets: Friday 4/25. Details and registration at <a href="https://bit.ly/horteventbrite">https://bit.ly/horteventbrite</a> Fee: \$40. Contact Loretta at <a href="mailto:lorettam@clackamas.edu">lorettam@clackamas.edu</a> with questions.	<b>336915 F</b>			<b>1-5:00 PM</b>								
<b>XHOR-C040</b>	<b>FLOWERING PLANT IDENTIFICATION, 0.30 CEUS</b> Join us for a morning of plant awareness. We'll start in the classroom, discussing features of some major plant families and locally grown genera and species of plants. We'll enjoy a stroll around the Oregon City campus looking at flowering plants and trees and how they're used in our landscape. We'll finish with a low-stakes quiz to see if you can identify all 30 samples we've talked about in the last few hours. You'll be provided with an internet link to the walk we took, showing the location and names of the plants we discussed.												
OC	<b>XHOR-C040-01</b> J. WENTWORTH-PLATO Required: Student Petition. Meets: Saturday 5/3. Register at <a href="https://bit.ly/horteventbrite">https://bit.ly/horteventbrite</a> Fee: \$20.	<b>340205 S</b>	\$0.00	\$0.00	\$0.00	<b>9-12:00 PM</b>	\$0.00						
<b>HAR</b>	<b>HS-216-01</b> T. BOYLE-GALESTIANTZ	<b>336624 M</b>	\$378.00	\$39.00	\$0.00	<b>4-5:20 PM</b>	\$417.00						
OC HYB LCT	<b>HS-206-01</b> C. BAKER Meets: 4/3, 4/17, 5/1, 5/15, 5/29.	<b>335851 TH</b>	\$378.00	\$39.00	\$0.00	<b>1-2:50 PM</b>	\$417.00						
<b>HS-216</b>	<b>GROUP COUNSELING SKILLS, 3 CREDITS</b> This course provides students with strategies and skills for group work with a variety of clients. Explores leadership styles and skills, group formation and stages, and the ethics of working with groups. The course will address the knowledge needed to develop, run, and evaluate groups for a variety of human service topics, including substance use treatment. Theories of therapeutic group work will also be discussed. <b>Prerequisites:</b> HS-156 with a C or better												
<b>HS-100</b>	<b>INTRODUCTION TO HUMAN SERVICES, 3 CREDITS</b> 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	<b>HS-100-01</b> Y. SMITH Meets: 4/8, 4/22, 5/6, 5/20, 6/3.	<b>336618 T</b>	\$378.00	\$39.00	\$0.00	<b>10-11:50 AM</b>	\$417.00						
<b>HS-156</b>	<b>CONDUCTING HUMAN SERVICE INTERVIEWS, 3 CREDITS</b> Provides the specific techniques required for entry-level interviewing in human service settings. Addresses issues raised in working with clients from diverse backgrounds.												
HAR HYB LCT	<b>HS-156-01</b> Y. SMITH	<b>336620 W</b>	\$378.00	\$39.00	\$0.00	<b>1-2:50 PM</b>	\$417.00						
<b>HS-170</b>	<b>PREPARATION FOR FIELD EXPERIENCE IN HUMAN SERVICES, 1 CREDIT</b> This course prepares students to complete fieldwork in Human Services. Covers developing learning objectives and creating successful field placements as well as the specific steps required to complete a Cooperative Work Experience at Clackamas Community College. Required: Student Petition. <b>Prerequisites:</b> HS-100 or HS-154 <b>Recommended Prerequisites:</b> At least 30 credits of the Human Services program, including 6 credits from HS-100, HS-103, HS-154, HS-156, and HS-206												
ONL	<b>HS-170-01</b> Y. SMITH Required: Student Petition.	<b>336623</b>	\$126.00	\$13.00	\$0.00		\$139.00						
<b>HS-206</b>	<b>TRAUMA INFORMED PRACTICES, 3 CREDITS</b>												
<b>OC HYB LCT</b>	<b>HS-280-01</b> J. LOVELESS Required: Student Petition.	<b>336626</b>	\$756.00	\$78.00	\$45.00		\$879.00V						
<b>HS-232</b>	<b>CASE MANAGEMENT, 3 CREDITS</b> Introduces case management techniques used by corrections and human services professionals in one-on-one and group contacts with clients. Explores a variety of case management materials, with an emphasis placed upon objective case planning and monitoring. <b>Prerequisite or Corequisite:</b> HS-156 and HS-210												
ONL LCT	<b>HS-232-01</b> C. BAKER	<b>335852</b>	\$378.00	\$39.00	\$0.00		\$417.00						
<b>HS-270</b>	<b>HUMAN SERVICES PRACTICUM SEMINAR, 2 CREDITS</b> Focuses on field experience for students in a variety of human service settings, paralleling duties regularly assigned to human service workers. The course offers students a chance to discuss issues faced in the field, and apply human services concepts and theories to their work. Students will reflect on program curriculum and how their knowledge influences the work in the field. May be repeated for up to 6 credits. Required: Student Petition. <b>Corequisites:</b> GRN-280, HS-280, HS-281, or HS-282												
REM	<b>HS-270-01</b> C. BAKER Required: Student Petition. Meets: 4/3, 4/17, 5/1, 5/15, 5/29.	<b>336625 TH</b>	\$252.00	\$26.00	\$0.00	<b>10-11:50 AM</b>	\$278.00						
<b>HS-280</b>	<b>HUMAN SERVICES GENERALIST I: CWE/PRACTICUM, 2-6 CREDITS (VAR)</b> 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. May be repeated for up to 12 credits. Required: Student Petition. <b>Prerequisites:</b> HS-170 <b>Corequisites:</b> HS-270												

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		Instructor		Tuition	Fee	Crs. Fee

**HS-281 HUMAN SERVICES GENERALIST II: CWE/PRACTICUM, 2-6 CREDITS (VAR)**

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. May be repeated for up to 12 credits. Required: Student Petition.

**Prerequisites:** HS-170

**Corequisites:** HS-270

OC LCT	<b>HS-281-01</b>	<b>336628</b>				
	J. LOVELESS	\$756.00	\$78.00	\$45.00	\$879.00V	
	Required: Student Petition.					

**HS-282 HUMAN SERVICES GENERALIST III: CWE/PRACTICUM, 2-6 CREDITS (VAR)**

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. May be repeated for up to 12 credits. Required: Student Petition.

**Corequisites:** CWE-281

**Prerequisites:** HS-170. HS-280 or HS-281

OC LCT	<b>HS-282-01</b>	<b>336630</b>				
	J. LOVELESS	\$756.00	\$78.00	\$45.00	\$879.00V	
	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 LCT	<b>HUM-235-01</b>	<b>336654 TTH</b>			<b>1-2:50 PM</b>	
	J. FLOWERS	\$504.00	\$52.00	\$0.00	\$556.00	
	No textbook required.					

**Industrial Maintenance Technology**

**IMT-108 RIGGING AND LIFTING, 2 CREDITS**

This course provides instruction in rigging and lifting techniques including usage and inspection of rigging equipment, developing lift plans, anchoring to concrete, and heavy machinery installation. Students will be expected to perform lifts independently and in groups.

**Prerequisites:** MTH-050

OC	<b>IMT-108-01</b>	<b>336678 MW</b>			<b>5:30 -7:20 PM</b>	
	C. CONNORS	\$252.00	\$26.00	\$102.50	\$380.50	

**IMT-110 PREVENTATIVE MAINTENANCE, 2 CREDITS**

This course will introduce students to the basics of preventative maintenance programs in an industrial environment. Students will learn about how maintenance departments are organized, how projects and tasks are defined and delegated. Topics will include maintenance organization, work order systems, maintenance planning, scheduling, quality control, controlling parts and materials costs.

**Prerequisites:** MTH-050

OC	<b>IMT-110-01</b>	<b>336681 TTH</b>			<b>2-3:50 PM</b>	
	C. CONNORS	\$252.00	\$26.00	\$102.50	\$380.50	

**IMT-220 INDUSTRIAL MACHINERY II, 3 CREDITS**

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		Instructor		Tuition	Fee	Crs. Fee

This second course in industrial machinery will focus on advanced concepts in machinery trouble shooting, repair and maintenance. Students will learn about the integration of mechanical, fluid power and electrical systems, their characteristics and repair. Additionally, mechanical concepts of laser shaft alignment, vibration analysis and thermal diagnosis will be covered. Other topics will include electromechanical systems, lock-out tag-out, advanced mechanical diagnosis, motors and motor controls.

**Prerequisites:** IMT-120

OC	<b>IMT-220-01</b>	<b>336684 TTH</b>			<b>5-7:50 PM</b>	
	C. CONNORS	\$378.00	\$39.00	\$153.75	\$570.75	

**IMT-223 INSTRUMENTATION & CONTROLS, 3 CREDITS**

Introduction to control systems and instrumentation. Includes open and closed loop systems. Focuses on the use of switches, sensors, and relays to control processes.

**Prerequisites:** EET-137 or MFG-130

**Recommended Prerequisites:** EET-141 or MFG-131

OC	<b>IMT-223-01</b>	<b>336685 TTH</b>			<b>1-3:50 PM</b>	
	B. HOFFMAN	\$378.00	\$39.00	\$153.75	\$570.75	

**Journalism**

**J-134 PHOTOJOURNALISM, 4 CREDITS**

Introduces the student to photojournalism, emphasizing composition, lighting and creative ways to illustrate a news story through photography.

REM	<b>J-134-01</b>	<b>336005 T</b>			<b>10-11:50 AM</b>	
	J. SONNENMAIR	\$504.00	\$52.00	\$10.00	\$566.00	

**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

OC	<b>J-211-01</b>	<b>336008 T</b>			<b>6-9:50 PM</b>	
	M. JONES	\$504.00	\$52.00	\$10.00	\$566.00	

**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>336012 MW</b>			<b>1-2:50 PM</b>	
	M. JONES	\$504.00	\$52.00	\$10.00	\$566.00	

**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.

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:** J-215  
**Recommended Prerequisites:** Placement in WR-121Z

OC LCT	<b>J-225-01</b>	<b>336017 MW</b>				<b>1-2:50 PM</b>
	M. JONES	\$504.00	\$52.00	\$0.00		\$556.00

**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	<b>J-226-01</b>	<b>336018 T</b>				<b>1-4:50 PM</b>
	M. JONES	\$504.00	\$52.00	\$10.00		\$566.00

**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	<b>J-227-01</b>	<b>336023 T</b>				<b>1-4:50 PM</b>
	M. JONES	\$504.00	\$52.00	\$0.00		\$556.00

**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	<b>J-228-01</b>	<b>336026 T</b>				<b>1-4:50 PM</b>
	M. JONES	\$504.00	\$52.00	\$0.00		\$556.00

**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>336029 MW</b>				<b>1-2:50 PM</b>
	M. JONES	\$504.00	\$52.00	\$0.00		\$556.00

**J-280 JOURNALISM/CWE, 2-6 CREDITS**

Cooperative work experience. Provides the student with on-the-job experience and training related to journalism. Required: Student Petition.

**Corequisites:** CWE-281

ONL	<b>J-280-01</b>	<b>336031</b>				
	M. JONES	\$756.00	\$78.00	\$45.00		\$879.00V

Required: Student Petition.

**J-280A PUBLIC RELATIONS/CWE, 2-6 CREDITS**

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		Instructor		Tuition	Fee	Crs. Fee

Cooperative work experience. Provides the student with on-the-job experience and training related to public relations. Required: Student Petition.

**Corequisites:** CWE-281

ONL	<b>J-280A-01</b>	<b>336041</b>				
	M. JONES	\$756.00	\$78.00	\$45.00		\$879.00V

Required: Student Petition.

**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</b>	<b>336686</b>				
	TBA	\$0.00	\$0.00	\$0.00		\$0.00
	Meets: 3/31-5/31.					
ONL LCT	<b>LIB-101-02</b>	<b>336687</b>				
	TBA	\$0.00	\$0.00	\$0.00		\$0.00
	Meets: 3/31-5/31.					
ONL LCT	<b>LIB-101-03</b>	<b>336688</b>				
	TBA	\$0.00	\$0.00	\$0.00		\$0.00
	Meets: 3/31-5/31.					

**Machine Tool Technology**

**MTT-112 MANUAL MACHINING II, 4 CREDITS**

This course is a continuation of machine tool operations. It covers set-up and operation of the vertical milling machine, lathe boring techniques, surface grinding and screw thread nomenclature.

**Prerequisites:** MTT-111

OC	<b>MTT-112-01</b>	<b>336708 MW</b>				<b>5-8:50 PM</b>
	J. TRAVER	\$504.00	\$52.00	\$205.00		\$761.00

**MTT-113 MANUAL MACHINING III, 4 CREDITS**

This course is a continuation of machine tool operations. Topics covered include offset boring heads, rotary tables, indexing devices, taper attachments and cylindrical grinding. Additional emphasis is also placed on inspections technique, technical math and optical comparators.

**Prerequisites:** MTT-112

OC	<b>MTT-113-01</b>	<b>336710 MW</b>				<b>7:30 -11:20 AM</b>
	J. TRAVER	\$504.00	\$52.00	\$205.00		\$761.00

**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</b>	<b>339942 TTH</b>				<b>8-11:50 AM</b>
	J. CARLSTON	\$504.00	\$52.00	\$205.00		\$761.00

**MTT-122 CNC II: PROGRAMMING AND OPERATION, 4 CREDITS**

This is the second course in the CNC sequence. Students will learn G&M-code programming for milling and turning while they build their set-up and operation skills. There will also be an introduction to set-up probing, 4-axis mill programming and machining, sub-programming and process documentation.

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Instructor	Tuition	Fee	Crs. Fee			

**Prerequisites:** MTT-111, MTT-121, MTH-050

oc	<b>MTT-122-01</b>	<b>336711</b>	<b>TTH</b>		<b>5:30 -9:20 PM</b>	
	J. CARLSTON	\$504.00	\$52.00	\$205.00	\$761.00	

**MTT-141 CAD/CAM I, 4 CREDITS**

This course is the first in the CAM series and will introduce students to computer-aided part creation and programming. Students will use CAD/CAM software to generate Numerical Control (NC) code to produce machined products. Model creation, process verification, code generation, and CAD/CAM integration will be covered.

**Recommended Prerequisites:** MTT-121

oc	<b>MTT-141-01</b>	<b>336712</b>	<b>TTH</b>		<b>12-3:50 PM</b>	
	C. LETTENMAIER	\$504.00	\$52.00	\$205.00	\$761.00	

**MTT-254 MILL/TURN MACHINING, 3 CREDITS**

This class will introduce students to CNC mill-turn machines, their programming, and setup procedures. The course will explore limitations, advantages, and configurations of typical mill/turn machines including rotation style and set-up orientation. Post processing and virtual machine simulation will also be discussed.

**Prerequisites:** MTT-122

oc	<b>MTT-254-01</b>	<b>336714</b>	<b>MW</b>		<b>1-3:50 PM</b>	
	C. LETTENMAIER	\$378.00	\$39.00	\$153.75	\$570.75	

**MTT-269 CAPSTONE MACHINING II, 3 CREDITS**

This final course in the capstone project series will continue to allow students to demonstrate mastery of core skills that are learned in the machining program while manufacturing a complex product. Special emphasis will be given to 4 and 5-axis CNC machining and programming, material preparation for CNC machining, and precision surface grinding. May be repeated for up to 3 credits.

**Prerequisites:** MTT-268

oc	<b>MTT-269-01</b>	<b>336717</b>	<b>MW</b>		<b>5:30 -8:20 PM</b>	
	C. LETTENMAIER	\$378.00	\$39.00	\$153.75	\$570.75	

**Manufacturing Engineering 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.*

**MET-112 INTRODUCTION TO ENGINEERING AND TECHNOLOGY CAREERS, 2 CREDITS**

This course is designed to provide an overview of five major engineering disciplines, their subsets and their respective career pathways. The course will also introduce students to the economic, environmental, social, political, ethical, as well as the health and safety realities of the engineering work environment. This course is intended to guide students in making appropriate career choices by exploring the following topics: engineering job demands, earning potential, marketability, licensure, and continuing education requirements.

ONL	<b>MET-112-01</b>	<b>336689</b>				
	S. PAVEY	\$252.00	\$26.00	\$102.50	\$380.50	

**MET-170 INTRODUCTION TO MANUFACTURING PROCESSES, 3 CREDITS**

This is a survey course to introduce students to the fundamental processes that are used to manufacture everyday products. Includes machining, casting, forming, welding, molding, composites and microelectronics fabrication.

**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	<b>MET-170-01</b>	<b>336690</b>	<b>MW</b>		<b>3:30 -4:50 PM</b>	
	C. CONNORS	\$378.00	\$39.00	\$153.75	\$570.75	

**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 or higher

oc	<b>MFG-103-01</b>	<b>339941</b>	<b>TTH</b>		<b>2-4:50 PM</b>	
	J. CARLSTON	\$378.00	\$39.00	\$153.75	\$570.75	

**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>336691</b>	<b>TTH</b>		<b>4-5:15 PM</b>	
	TBA	\$378.00	\$39.00	\$153.75	\$570.75	

**MFG-107 INDUSTRIAL SAFETY & FIRST AID, 3 CREDITS**

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>336693</b>	<b>F</b>		<b>2-4:50 PM</b>	
	L. HILLYARD	\$378.00	\$39.00	\$153.75	\$570.75	

**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>336697</b>	<b>F</b>		<b>8-10:50 AM</b>	
	A. ARISTIZABAL	\$378.00	\$39.00	\$270.12	\$687.12	
	Online textbook included in section fees.					

**MFG-132 BASIC ELECTRICITY III, 3 CREDITS**

This course offers continued study in the control of industrial electric motors. Concepts in the application of relays, motor starters, switches and overload protection are explored from both a practical and theoretical viewpoint. Wiring techniques and electrical devices for residential, commercial and industrial facilities are presented along with hands-on activities. Additional topics include: electrical conductors, installation materials, and the scope of work performed by licensed electricians.

**Recommended Prerequisites:** MFG-130 and MFG-131

oc	<b>MFG-132-01</b>	<b>336698</b>	<b>TH</b>		<b>5-7:50 PM</b>	
	B. KARM	\$378.00	\$39.00	\$153.75	\$570.75	

**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	

**MFG-219 ROBOTICS, 3 CREDITS**

An introduction to robotics and industrial motion control. Students will be exposed to the operation, programming and applications of a typical FANUC, six-axis industrial robot. Hands-on activities will include manual tech programming, testing with simulation software and programming of advanced movements.

**Recommended Prerequisites:** MFG-209 and MTH-050

oc	<b>MFG-219-01</b>	<b>336699 TTH</b>			<b>1-3:50 PM</b>	
	M. MATTSON	\$378.00	\$39.00	\$153.75	\$570.75	

**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>336702 MW</b>			<b>5-7:50 PM</b>	
	M. MATTSON	\$378.00	\$39.00	\$153.75	\$570.75	

**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. May be repeated for up to 6 credits. Required: Student Petition.

**Corequisites:** CWE-281

ONL	<b>MFG-280-01</b>	<b>336706</b>				
	C. CONNORS	\$756.00	\$78.00	\$75.00	\$909.00V	
	Required: Student Petition. Contact: Mike Mattson at mattsonm@clackamas.edu or 503-594-3322. Corequisite: Take the following CWE-281-06.					

**XMFG-0008 WORK SESSIONS: MAKERSPACE, 0 CREDIT**

The de Asis Makerspace workshop where creative people from all walks of life can have access to the tools they will need to create prototypes, models and masterpieces. Participants will have the ability to use equipment ranging from basic woodworking machinery and 3-D printing to CNC milling, plasma and laser.

oc	<b>XMFG-0008-01</b>	<b>340208 F</b>			<b>5-8:50 PM</b>	
	C. CONNORS	\$0.00	\$0.00	\$0.00	\$0.00	
	Meets: 4/4.					
oc	<b>XMFG-0008-02</b>	<b>340209 F</b>			<b>5-8:50 PM</b>	
	C. CONNORS	\$0.00	\$0.00	\$0.00	\$0.00	
	Meets: 4/11.					
oc	<b>XMFG-0008-03</b>	<b>340210 F</b>			<b>5-8:50 PM</b>	
	C. CONNORS	\$0.00	\$0.00	\$0.00	\$0.00	
	Meets: 4/18.					
oc	<b>XMFG-0008-04</b>	<b>340211 F</b>			<b>5-8:50 PM</b>	
	C. CONNORS	\$0.00	\$0.00	\$0.00	\$0.00	
	Meets: 4/25.					
oc	<b>XMFG-0008-05</b>	<b>340212 F</b>			<b>5-8:50 PM</b>	
	C. CONNORS	\$0.00	\$0.00	\$0.00	\$0.00	
	Meets: 5/2.					

**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	<b>XMFG-0008-06</b>	<b>340213 F</b>			<b>5-8:50 PM</b>	
	C. CONNORS	\$0.00	\$0.00	\$0.00	\$0.00	
	Meets: 5/9.					
oc	<b>XMFG-0008-07</b>	<b>340214 F</b>			<b>5-8:50 PM</b>	
	C. CONNORS	\$0.00	\$0.00	\$0.00	\$0.00	
	Meets: 5/16.					
oc	<b>XMFG-0008-08</b>	<b>340215 F</b>			<b>5-8:50 PM</b>	
	C. CONNORS	\$0.00	\$0.00	\$0.00	\$0.00	
	Meets: 5/23.					
oc	<b>XMFG-0008-09</b>	<b>340216 F</b>			<b>5-8:50 PM</b>	
	C. CONNORS	\$0.00	\$0.00	\$0.00	\$0.00	
	Meets: 5/30.					
oc	<b>XMFG-0008-10</b>	<b>340217 F</b>			<b>5-8:50 PM</b>	
	C. CONNORS	\$0.00	\$0.00	\$0.00	\$0.00	
	Meets: 6/6.					
oc	<b>XMFG-0008-11</b>	<b>340207 F</b>			<b>5-8:50 PM</b>	
	C. CONNORS	\$0.00	\$0.00	\$0.00	\$0.00	
	Meets: 6/13.					

**Mathematics**

**MTH-010 FUNDAMENTALS OF ARITHMETIC I, 4 CREDITS**

This first course in arithmetic reviews operations on whole numbers, basic fractions, decimals, measurement, and basic geometry.

oc LCT	<b>MTH-010-01</b>	<b>336657 MW</b>			<b>1-2:50 PM</b>	
	TBA	\$504.00	\$52.00	\$20.00	\$576.00	

**MTH-020 FUNDAMENTALS OF ARITHMETIC II, 4 CREDITS**

This second course in arithmetic is a prerequisite for the three math pathways. It reviews mathematical foundations such as fractions, percents, geometry, and effective study skills.

**Prerequisites:** MTH-010 with a C or better, or placement in MTH-020

oc LCT	<b>MTH-020-01</b>	<b>336666 TTH</b>			<b>10-11:50 AM</b>	
	M. NICKAS	\$504.00	\$52.00	\$20.00	\$576.00	
ONL LCT	<b>MTH-020-02</b>	<b>336669</b>				
	M. NICKAS	\$504.00	\$52.00	\$20.00	\$576.00	
	Meets: 4/14-6/14.					

**MTH-020ES FUNDAMENTOS DE ARITMÉTICA II, 4 CREDITS**

Este segundo curso de aritmética es un requisito previo para las tres vías de matemáticas. Revisa fundamentos matemáticos como fracciones, porcentajes, geometría y habilidades de estudio efectivas.

**Prerequisites:** MTH-010 con una C o mejor, o ubicación en MTH-020

HAR LCT ESPAÑOL	<b>MTH-020ES-01</b>	<b>340175 TTH</b>			<b>1-2:50 PM</b>	
	A. ARISTIZABAL	\$504.00	\$52.00	\$20.00	\$576.00	
	Requerido: petición del estudiante.					

**MTH-050 TECHNICAL MATHEMATICS I, 4 CREDITS**

Designed for career-technical students. Topics focus on critical thinking, problem solving, and mathematical communication using applications of arithmetic, measurement, geometry, and statistics and probability.

**Prerequisites:** MTH-020 with a C or better, or placement in MTH-050 or higher

**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-050-01</b> <b>336671 MW</b>				<b>1-2:20 PM</b>	
	M. CHASE		\$504.00	\$52.00	\$20.00	\$576.00
OC HYB LCT	<b>MTH-050-02</b> <b>336673 TTH</b>				<b>10-11:20 AM</b>	
	M. CHASE		\$504.00	\$52.00	\$20.00	\$576.00

**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	MTH-050ES-	336680 F				
ESPAÑOL	01					
	A. ARISTIZABAL		\$504.00	\$52.00	\$20.00	\$576.00

**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 LCT	<b>MTH-060-01</b> <b>336683 MW</b>				<b>1-2:50 PM</b>	
	M. JOSI		\$504.00	\$52.00	\$20.00	\$576.00
HAR LCT	<b>MTH-060-15</b> <b>336694 TTH</b>				<b>9-10:50 AM</b>	
	A. ARISTIZABAL		\$504.00	\$52.00	\$20.00	\$576.00
HAR LCT	<b>MTH-060-16</b> <b>336695 TTH</b>				<b>6-7:50 PM</b>	
	B. WEBBER		\$504.00	\$52.00	\$20.00	\$576.00

**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 LCT	<b>MTH-065-01</b> <b>336700 MW</b>				<b>1-2:50 PM</b>	
	A. HALL		\$504.00	\$52.00	\$20.00	\$576.00
OC HYB LCT	<b>MTH-065-10</b> <b>336703 TBA</b>					
	A. ARISTIZABAL		\$504.00	\$52.00	\$20.00	\$576.00
	This is an online/asynchronous class that meets for in-person testing dates only.					
HAR LCT	<b>MTH-065-15</b> <b>336704 TTH</b>				<b>9-10:50 AM</b>	
	A. ARISTIZABAL		\$504.00	\$52.00	\$20.00	\$576.00
HAR LCT	<b>MTH-065-16</b> <b>336705 TTH</b>				<b>6-7:50 PM</b>	
	B. WEBBER		\$504.00	\$52.00	\$20.00	\$576.00

**MTH-080 TECHNICAL MATHEMATICS II, 3 CREDITS**

This course is the second in a sequence designed for career-technical students. The topics focus on critical thinking, problem solving, and mathematical communication using applications in arithmetic, algebra, geometry, and trigonometry.

**Prerequisites:** MTH-050 with a C or better

OC LCT	<b>MTH-080-01</b> <b>336707 MW</b>				<b>1-2:20 PM</b>	
	T. BIBER		\$378.00	\$39.00	\$20.00	\$437.00

**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

**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 HYB LCT	<b>MTH-095-01</b> <b>336709 MW</b>				<b>10-11:20 AM</b>	
	J. HEVEL		\$504.00	\$52.00	\$20.00	\$576.00
OC LCT	<b>MTH-095-02</b> <b>336713 TTH</b>				<b>1-2:50 PM</b>	
	A. HALL		\$504.00	\$52.00	\$20.00	\$576.00
OC HYB LCT	<b>MTH-095-10</b> <b>336718 TBA</b>					
	B. HSIAO		\$504.00	\$52.00	\$20.00	\$576.00
	This is an online/asynchronous class that meets for in-person testing dates only.					
HAR LCT	<b>MTH-095-15</b> <b>336722 TTH</b>				<b>6-7:50 PM</b>	
	TBA		\$504.00	\$52.00	\$20.00	\$576.00

**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 and communicate what these numbers mean. Students will explore ways they interact with quantitative information in daily life, learn to effectively interpret and communicate quantitative information, and apply their own knowledge and experience to quantitative reasoning. Learning happens in small student groups, with technology, and through reflective writing. The class is project-based, meaning that students complete projects to demonstrate what they have 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</b> <b>336724 TTH</b>				<b>10-11:20 AM</b>	
	B. WEBBER		\$504.00	\$52.00	\$20.00	\$576.00
OC HYB LCT	<b>MTH-098-02</b> <b>336727 MW</b>				<b>1-2:20 PM</b>	
	M. YANNOTTA		\$504.00	\$52.00	\$20.00	\$576.00
ONL LCT	<b>MTH-098-10</b> <b>336729</b>					
	E. KELLY		\$504.00	\$52.00	\$20.00	\$576.00

**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</b> <b>336735 MW</b>				<b>10-11:20 AM</b>	
	M. YANNOTTA		\$504.00	\$52.00	\$20.00	\$576.00
OC HYB LCT	<b>MTH-105Z-02</b> <b>336740 TTH</b>				<b>1-2:20 PM</b>	
	S. VALDES-FERNANDEZ		\$504.00	\$52.00	\$20.00	\$576.00
OC HYB LCT	<b>MTH-105Z-03</b> <b>336741 TTH</b>				<b>10-11:20 AM</b>	
	E. MEUSER		\$504.00	\$52.00	\$20.00	\$576.00
ONL LCT	<b>MTH-105Z-10</b> <b>336746</b>					
	M. JOSI		\$504.00	\$52.00	\$20.00	\$576.00
ONL LCT	<b>MTH-105Z-11</b> <b>336748</b>					
	M. YANNOTTA		\$504.00	\$52.00	\$20.00	\$576.00

**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.

**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:** MTH-095 with a C or better, or placement in MTH-111Z  
**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

OC LCT	<b>MTH-111Z-01</b>	<b>336750</b>	<b>TTH</b>			<b>1-2:50 PM</b>
	E. MEUSER	\$504.00	\$52.00	\$20.00	\$576.00	
OC LCT	<b>MTH-111Z-02</b>	<b>336754</b>	<b>MW</b>			<b>10-11:50 AM</b>
	S. PRUYN	\$504.00	\$52.00	\$20.00	\$576.00	
OC LCT	<b>MTH-111Z-03</b>	<b>336755</b>	<b>TTH</b>			<b>10-11:50 AM</b>
	K. AMREIN	\$504.00	\$52.00	\$20.00	\$576.00	
OC LCT	<b>MTH-111Z-04</b>	<b>340181</b>	<b>TTH</b>			<b>6-7:50 PM</b>
	K. PHILLIPS	\$504.00	\$52.00	\$20.00	\$576.00	
OC HYB LCT	<b>MTH-111Z-10</b>	<b>336761</b>	<b>TBA</b>			
	C. WARNER	\$504.00	\$52.00	\$20.00	\$576.00	
	This is an online/asynchronous class that meets for in-person testing dates only.					

**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 LCT	<b>MTH-112Z-01</b>	<b>336766</b>	<b>MW</b>			<b>10-11:50 AM</b>
	F. CARTER	\$504.00	\$52.00	\$20.00	\$576.00	
OC LCT	<b>MTH-112Z-02</b>	<b>336772</b>	<b>TTH</b>			<b>1-2:50 PM</b>
	F. CARTER	\$504.00	\$52.00	\$20.00	\$576.00	
OC HYB LCT	<b>MTH-112Z-10</b>	<b>336774</b>	<b>TBA</b>			
	M. HAUGEN	\$504.00	\$52.00	\$20.00	\$576.00	
	This is an online/asynchronous class that meets for in-person testing dates only.					

**MTH-212 FUNDAMENTALS OF ELEMENTARY MATH II, 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 modeling and working with integers, fractions, decimals, ratios, percents, and the real numbers. Introduces elementary algebra and statistics. MTH-212 and MTH-213 can be taken in any order.

**Prerequisites:** MTH-211

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

HAR LCT	<b>MTH-212-15</b>	<b>336777</b>	<b>TTH</b>			<b>6-7:50 PM</b>
	S. VALDES-FERNANDEZ	\$504.00	\$52.00	\$20.00	\$576.00	

**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, measurement, geometric mapping, probability, and counting techniques. MTH-212 and MTH-213 can be taken in any order.

**Prerequisites:** MTH-211

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

OC LCT	<b>MTH-213-01</b>	<b>336781</b>	<b>MW</b>			<b>10-11:50 AM</b>
	E. KELLY	\$504.00	\$52.00	\$20.00	\$576.00	

**MTH-244 STATISTICS II, 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

**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 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.

**Prerequisites:** STAT-243Z with a C or better

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

OC LCT	<b>MTH-244-01</b>	<b>336783</b>	<b>MW</b>			<b>10-11:50 AM</b>
	T. BIEBER	\$504.00	\$52.00	\$20.00	\$576.00	

**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>336787</b>	<b>MW</b>			<b>8-9:50 AM</b>
	M. PRICE	\$630.00	\$65.00	\$20.00	\$715.00	
OC HYB LCT	<b>MTH-251-02</b>	<b>336791</b>	<b>TTH</b>			<b>1-2:50 PM</b>
	K. PHILLIPS	\$630.00	\$65.00	\$20.00	\$715.00	

**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>336796</b>	<b>TTH</b>			<b>10-11:50 AM</b>
	M. PARTNOF	\$630.00	\$65.00	\$20.00	\$715.00	
OC HYB LCT	<b>MTH-252-02</b>	<b>336799</b>	<b>MW</b>			<b>3-4:50 PM</b>
	M. PARTNOF	\$630.00	\$65.00	\$20.00	\$715.00	

**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>336800</b>	<b>MW</b>			<b>3-4:50 PM</b>
	S. PRUYN	\$630.00	\$65.00	\$20.00	\$715.00	

**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>336802</b>	<b>MW</b>			<b>10-11:50 AM</b>
	A. HALL	\$630.00	\$65.00	\$20.00	\$715.00	

**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.



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:** MTH-252 with a C or better  
**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

OC LCT	<b>MTH-261-01</b>	<b>336809</b>	<b>TTH</b>			<b>10-11:50 AM</b>
	M. HAUGEN	\$504.00	\$52.00	\$20.00	\$576.00	

**Medical Assistant**

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

**MA-100 INTRODUCTION TO MEDICAL ASSISTING, 2 CREDITS**

Introduces the knowledge, skills, and attributes of a successful Medical Assistant while exploring the connection between patient experience and patient outcomes. Summarizes the clinical and employability skills required for providing clinical care while introducing content for career exploration.

ONL	<b>MA-100-01</b>	<b>335869</b>				
	S. DAVENPORT	\$252.00	\$26.00	\$0.00	\$278.00	

**MA-166 PHLEBOTOMY II, 1 CREDIT**

The focus of this course builds upon the foundational skills introduced in Phlebotomy I. The course will focus on advanced phlebotomy techniques such as blood specimen processing, techniques for syringe draws, collection into the correct evacuated tube (additive), specimen handling procedures, collections of newborn screen blood cultures, and advanced phlebotomy techniques.

**Prerequisites:** MA-156, MA-156L, MA-160, MA-162, MA-162L, MA-164, MA-164L, and MA-168

**Corequisites:** MA-166L, MA-174, MA-174L, MA-178, and MA-188

**Required:** Student must be enrolled in current Medical Assistant cohort

ONL	<b>MA-166-01</b>	<b>335874</b>				
	T. BOYD	\$126.00	\$13.00	\$250.00	\$389.00	

**MA-166L PHLEBOTOMY II LAB, 1 CREDIT**

The focus of this course is to demonstrate appropriate blood specimen procurement techniques using vacutainer, syringe, 'winged infusion/butterfly with syringe and capillary puncture methods and associated safety techniques. Other specifics of the blood specimen testing requirements, such as collection into the correct evacuated tube (additive), specimen handling procedures, collections of newborn screen and collection documentation are also covered; while assuring a safe, confidential and professional environment for the patient, and as the phlebotomy technician.

**Prerequisites:** MA-156, MA-156L, MA-160, MA-162, MA-162L, MA-164, MA-164L, and MA-168

**Corequisites:** MA-166, MA-174, MA-174L, MA-178, and MA-188

**Required:** Student must be enrolled in current Medical Assistant cohort

HAR	<b>MA-166L-01</b>	<b>335875</b>	<b>TTH</b>			<b>9-11:50 AM</b>
	T. BOYD	\$126.00	\$13.00	\$94.00	\$233.00	
	S. DAVENPORT					

**MA-174 CLINICAL LAB PROCEDURES II, 1 CREDIT**

Designed to instill a basic understanding of simple, common laboratory terminology and procedures used in a general medical office laboratory to aid the physician in the diagnosis and treatment of disease. Laboratory safety, the prevention of blood born disease transmission and scope of practice will be emphasized. Continuation of the Clinical Laboratory Procedures series.

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:** MA-156, MA-156L, MA-160, MA-162, MA-162L, MA-164, MA-164L, and MA-168

**Corequisites:** MA-166, MA-166L, MA-174L, MA-178, and MA-188

**Required:** Student must be enrolled in current Medical Assistant cohort

ONL	<b>MA-174-01</b>	<b>335876</b>				
	S. DAVENPORT	\$126.00	\$13.00	\$50.00	\$189.00	

**MA-174L CLINICAL LAB PROCEDURES II LAB, 1 CREDIT**

This lab course is designed to instill a basic understanding of common laboratory terminology and procedures used in a general medical office laboratory to aid the physician in the diagnosis and treatment of the disease. Laboratory safety, the prevention of bloodborne disease transmission and scope of practice will be emphasized. Continuation of the Clinical Laboratory Procedures series.

**Prerequisites:** MA-156, MA-156L, MA-160, MA-162, MA-162L, MA-164, MA-164L, and MA-168

**Corequisites:** MA-166, MA-166L, MA-174, MA-178, and MA-188

**Required:** Student must be enrolled in current Medical Assistant cohort

HAR	<b>MA-174L-01</b>	<b>335877</b>	<b>TTH</b>			<b>1-3:50 PM</b>
	S. DAVENPORT	\$126.00	\$13.00	\$0.00	\$139.00	

**MA-178 MEDICAL ASSISTANT PRACTICUM, 9 CREDITS**

Under supervision within the ambulatory care setting, the student will apply both administrative and clinical knowledge and practices as attained within the medical assistant course curriculum.

**Prerequisites:** MA-156, MA-156L, MA-160, MA-162, MA-162L, MA-164, MA-164L, and MA-168

**Corequisites:** MA-166, MA-166L, MA-174, MA-174L, and MA-188

**Required:** Student must be enrolled in current Medical Assistant cohort

HAR HYB	<b>MA-178-01</b>	<b>335878</b>	<b>W</b>			<b>9-10:50 AM</b>
	S. PARKER	\$1,134.00	\$117.00	\$50.00	\$1,301.00	
			<b>MTWTFH</b>			<b>8-5:00 PM</b>
						0

**MA-188 CERTIFICATION EXAM REVIEW, 2 CREDITS**

This course is a medical assistant study prep course designed to prepare students for their national credentialing examination.

**Prerequisites:** MA-156, MA-156L, MA-160, MA-162, MA-162L, MA-164, MA-164L, and MA-168

**Corequisites:** MA-166, MA-166L, MA-174, MA-174L, and MA-178

**Required:** Student must be enrolled in current Medical Assistant cohort

ONL	<b>MA-188-01</b>	<b>335879</b>				
	S. DAVENPORT	\$252.00	\$26.00	\$0.00	\$278.00	

**Medical Billing and Coding**

**MBC-116 INSURANCE BILLING AND REIMBURSEMENT II, 4 CREDITS**

This course will continue to discuss health insurance and insurance billing, with a focus on healthcare reimbursement. Students will practice the principles of accounts receivable management from claim submission and follow-up to posting payments received. Students will apply payments to patient accounts and track claims for correct payment. Legal and regulatory issues as they pertain to healthcare reimbursement are reviewed as well as the differences in reimbursement methods. Practical application of Insurance billing and Medical coding skills learned throughout the program via examinations and practice scenarios. Required: Student Petition.

**Prerequisites:** MBC-115 with a C or better

**Required:** Medical Billing and Coding students only

**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		Days (M,T,W,Th,F,S,SU)		Time	Total
Section No	Crs Reg.	Tuition	Fee	Crs. Fee		
REM	<b>MBC-116-01</b>	<b>335880 M</b>			<b>6-9:00 PM</b>	
	C. GARNER	\$504.00	\$52.00	\$200.00		\$756.00
	Required: Student Petition.					

**MBC-125 ICD-10 CODING I, 2 CREDITS**

This course will discuss fundamental medical coding skills for professional services, such as physicians, mid-level providers, etc., and how to apply them. The student will be introduced to the basics of diagnostic medical coding related to the International Classification of Diseases, Revision 10-Clinical Modification (ICD-10- CM) Code Set. Required: Student Petition.

**Prerequisites:** MBC-120 with a C or better

**Corequisites:** MBC-126

**Required:** Medical Billing and Coding students only

ONL	<b>MBC-125-01</b>	<b>335881</b>				
	C. GARNER	\$252.00	\$26.00	\$200.00		\$478.00
	Required: Student Petition.					

**MBC-126 CPT/HCPCS CODING I, 4 CREDITS**

This course reviews fundamental medical coding skills for professional services, such as physicians, mid-level providers, etc. The student will explore the basics of procedural medical coding related to the Current Procedural Terminology (CPT) and Healthcare Common Procedure Coding System (HCPCS) Code Sets. Required: Student Petition.

**Prerequisites:** MBC-120 with a C or better

**Corequisites:** MBC-125

**Required:** Medical Billing and Coding students only

REM	<b>MBC-126-01</b>	<b>335882 W</b>			<b>6-9:00 PM</b>	
	C. GARNER	\$504.00	\$52.00	\$0.00		\$556.00
	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>335895 TTH</b>			<b>3-4:50 PM</b>	
	L. CAMPBELL	\$252.00	\$26.00	\$0.00		\$278.00

**MUP-104 JAZZ COMBO, 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

OC LCT	<b>MUP-104-01</b>	<b>335896 M</b>			<b>12-12:50 PM</b>	
	C. DOGGETT	\$126.00	\$13.00	\$0.00		\$139.00

**MUP-105 JAZZ ENSEMBLE, 2 CREDITS**

Course No	Course Title, Credits		Days (M,T,W,Th,F,S,SU)		Time	Total
Section No	Crs Reg.	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>335897 MW</b>			<b>3-4:50 PM</b>	
	L. CAMPBELL	\$252.00	\$26.00	\$0.00		\$278.00

**MUP-122 VOCAL ENSEMBLE, 2 CREDITS**

An introductory performance ensemble open to all students wishing to sing in a choral ensemble. Designed for non-majors and majors who need preparation for MUP-125.

**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>335898 TTH</b>			<b>3-4:50 PM</b>	
	K. HOLLINGSWORTH	\$252.00	\$26.00	\$52.00		\$330.00
	Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 4/1 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions.					

**MUP-125 ADVANCED VOCAL ENSEMBLE, 2 CREDITS**

An advanced vocal performance ensemble open by audition only. Open to majors and students with vocal experience, sight-reading ability. AVE will travel to perform and a minimum three-term commitment is highly encouraged.

OC LCT	<b>MUP-125-01</b>	<b>335899 MW</b>			<b>3-4:50 PM</b>	
	K. HOLLINGSWORTH	\$252.00	\$26.00	\$52.00		\$330.00
	Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 4/1 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions.					

**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>335902 MW</b>			<b>1-2:50 PM</b>	
	K. DEITZ	\$252.00	\$26.00	\$50.00		\$328.00
	K. HOLLINGSWORTH	Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 4/1 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions.				

**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>335903 TH</b>			<b>1-2:50 PM</b>	
	D. TUTMARK	\$126.00	\$13.00	\$85.00		\$224.00
	Guitar Ensemble.					
OC LCT	<b>MUP-158-02</b>	<b>335906 T</b>				
	G. HARRIS	\$126.00	\$13.00	\$85.00		\$224.00
	Saxophone Quartet.					

**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	
oc	<b>MUP-158-03 339996 TBA</b> TBA Brass Quintet.				\$126.00	\$13.00	\$85.00	\$224.00
oc	<b>MUP-158-04 339997 TBA</b> TBA Woodwind Quintet.				\$126.00	\$13.00	\$85.00	\$224.00
oc	<b>MUP-158-05 339998 TBA</b> Y. MIYAMA Piano Chamber Ensemble.				\$126.00	\$13.00	\$85.00	\$224.00

**MUP-202 WIND ENSEMBLE, 2 CREDITS**

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 335966 TTH</b> L. CAMPBELL				\$252.00	\$26.00	\$0.00	\$278.00
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**MUP-204 JAZZ COMBO, 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

oc LCT	<b>MUP-204-01 335967 M</b> C. DOGGETT				\$126.00	\$13.00	\$0.00	\$139.00
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**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 335973 MW</b> L. CAMPBELL				\$252.00	\$26.00	\$0.00	\$278.00
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**MUP-222 VOCAL ENSEMBLE, 2 CREDITS**

Second year beginning vocal ensemble open to all students wishing to sing in a choral ensemble. Designed for non-majors and majors who need preparation for MUP-225. Performs various genres of vocal music. Emphasis on sight reading, basic vocal production and ensemble singing. May be repeated for up to 6 credits.

**Prerequisites:** MUP-122 (6 credits)

oc LCT	<b>MUP-222-01 335974 TTH</b> K. HOLLINGSWORTH				\$252.00	\$26.00	\$52.00	\$330.00
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Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 4/1 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions.

**MUP-225 ADVANCED VOCAL 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

**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	

Second year advanced vocal performance ensemble open by audition only. Open to majors and students with vocal experience, sight-reading ability. AVE will travel to perform, will record in the studio and a minimum three-term commitment is highly encouraged. May be repeated for up to 6 credits.

**Prerequisites:** MUP-125 (6 credits)

oc LCT	<b>MUP-225-01 335976 MW</b> K. HOLLINGSWORTH				\$252.00	\$26.00	\$52.00	\$330.00
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**3-4:50 PM**  
Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 4/1 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions.

**MUS-101 MUSIC FUNDAMENTALS, 3 CREDITS**

Introduction to fundamentals of reading and writing music. Designed for non-majors or majors needing substantial preparation for MUS-111.

ONL	<b>MUS-101-01 336078</b> J. HEDBERG				\$378.00	\$39.00	\$10.00	\$427.00
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**MUS-104 APPLIED MUSIC FUNDAMENTALS, 3 CREDITS**

The final sequence of a 3 course introduction to fundamentals of music theory. Designed for MPT/MT or AS Transfer students who need substantial preparation for MUS-111 and interested non-majors.

**Prerequisites:** MUS-103

oc	<b>MUS-104-01 340003 T</b> TH				\$378.00	\$39.00	\$0.00	\$417.00
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**10-11:20 AM**  
K. HOLLINGSWORTH

**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 336084</b> J. HEDBERG				\$378.00	\$39.00	\$0.00	\$417.00
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**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	<b>MUS-106-01 340190 F</b> S				\$126.00	\$13.00	\$99.00	\$238.00
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**6:30 -8:20 PM**  
**9-5:20 PM**  
D. BADSTUBNER  
Meets: 4/25 & 4/26.

**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 336090 M</b> D. BADSTUBNER				\$378.00	\$39.00	\$99.00	\$516.00
oc	<b>MUS-107-02 340189 M</b> D. BADSTUBNER				\$378.00	\$39.00	\$99.00	\$516.00

**6:30 -9:20 PM**  
**1-3:50 PM**

**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>336094 T</b>			<b>6:30 -9:20 PM</b>	
	D. BADSTUBNER	\$378.00	\$39.00	\$99.00		\$516.00

**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>336100 T</b>			<b>6:30 -9:20 PM</b>	
	D. BADSTUBNER	\$378.00	\$39.00	\$99.00		\$516.00

**MUS-113 MUSIC THEORY I, 3 CREDITS**

For non-majors and music majors. Presents the diatonic and chromatic structure of tonal music in theory from the common practice period through written exercises, compositions, listening, and analysis. This is the third term of a three-term sequence, which includes chord progressions, use of triad inversions, seventh chords, secondary harmony, tonicization, and modulation to closely related keys.

**Prerequisites:** MUS-112

**Corequisites:** MUS-113L, MUS-116, and MUS-129 for AS in music degree seekers. This requirement does not affect non-music majors or MPT Majors

oc LCT	<b>MUS-113-01</b>	<b>336105 TTH</b>			<b>10-11:20 AM</b>	
	R. OLASON	\$378.00	\$39.00	\$0.00		\$417.00

**MUS-113L MUSIC NOTATION SOFTWARE I, 1 CREDIT**

Continues an introduction to Finale (music notation software) on Macintosh computers.

oc LCT	<b>MUS-113L-01</b>	<b>336107 M</b>			<b>10-11:50 AM</b>	
	D. FLESCHNER	\$126.00	\$13.00	\$44.00		\$183.00

**MUS-116 AURAL SKILLS I, 2 CREDITS**

Third of three courses in a year-long sequence. Diatonic sight singing in major keys using solfège syllables and moveable 'do'. Melodic dictation and aural recognition of intervals, triads, and 7th chords.

**Corequisites:** MUS-113

**Prerequisites:** MUS-115

oc LCT	<b>MUS-116-01</b>	<b>336108 TTH</b>			<b>1-1:50 PM</b>	
	R. OLASON	\$252.00	\$26.00	\$0.00		\$278.00

**MUS-129 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.

**Corequisites:** MUS-113, MUS-113L, and MUS-116

**Prerequisites:** MUS-128

oc LCT	<b>MUS-129-01</b>	<b>336109 TTH</b>			<b>2-2:50 PM</b>	
	R. OLASON	\$252.00	\$26.00	\$10.00		\$288.00

**MUS-133 GROUP PIANO: PIANO FOR PLEASURE, 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	

Third 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 LCT	<b>MUS-133-01</b>	<b>336111 TTH</b>			<b>9-9:50 AM</b>	
	T. STOJANOVIC	\$126.00	\$13.00	\$85.00		\$224.00

**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>336114 TH</b>			<b>10-11:50 AM</b>	
	D. TUTMARK	\$126.00	\$13.00	\$85.00		\$224.00

**MUS-138 GROUP GUITAR II, 1 CREDIT**

For intermediate to advanced players. Covers finger picking, lead guitar, rock and popular styles, music reading, and music theory. Students provide their own instrument.

**Prerequisites:** MUS-137

oc LCT	<b>MUS-138-01</b>	<b>336116 TH</b>			<b>10-11:50 AM</b>	
	D. TUTMARK	\$126.00	\$13.00	\$85.00		\$224.00

**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 LCT	<b>MUS-142-01</b>	<b>336118 T</b>			<b>1-3:50 PM</b>	
	D. BADSTUBNER	\$378.00	\$39.00	\$99.00		\$516.00

**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>336119 TH</b>			<b>1-3:50 PM</b>	
	A. HAAK	\$378.00	\$39.00	\$99.00		\$516.00

**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 LCT	<b>MUS-144-01</b>	<b>336121 TH</b>			<b>1-3:50 PM</b>	
	A. HAAK	\$378.00	\$39.00	\$99.00		\$516.00

**MUS-145 LOCATION AUDIO, LIVESTREAMING, AND ADVANCED AUDIO EDITING TECHNIQUES, 3 CREDITS**

A look at onsite audio, both for recording as well as for broadcast, with an additional segment on more advanced audio editing techniques (can be taken in 1-credit segments; see MUS-150, MUS-151, and MUS-152).

oc LCT	<b>MUS-145-01</b>	<b>336123 TH</b>			<b>6:30 -9:20 PM</b>	
	D. BADSTUBNER	\$378.00	\$39.00	\$99.00		\$516.00

**MUS-148 LIVE SOUND ENGINEERING, 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		

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>336124 W</b>			<b>6:30 -9:20 PM</b>	
	D. BADSTUBNER	\$378.00	\$39.00	\$99.00		\$516.00

**MUS-150 LOCATION, LIVE, AND DIALOGUE SOUND RECORDING, 1 CREDIT**

Through hands-on and practical situational experience, students will be introduced to recording audio in a non-traditional studio environment. Concepts will include live concert documentation, field/location recording, and dialogue recording.

**Prerequisites:** MUS-107

oc	<b>MUS-150-01</b>	<b>340010 TH</b>			<b>6:30 -9:20 PM</b>	
	M. BAIRD	\$126.00	\$13.00	\$0.00		\$139.00
	Meets: 5/1-5/15.					

**MUS-151 VIDEO AND AUDIO FOR LIVESTREAM, 1 CREDIT**

Utilizing Open Broadcast Software and professional audio equipment, students will learn to use and manipulate video and audio for live internet broadcasts.

oc	<b>MUS-151-01</b>	<b>340011 TH</b>			<b>6:30 -9:20 PM</b>	
	B. WAGER	\$126.00	\$13.00	\$0.00		\$139.00
	Meets: 4/10-4/24.					

**MUS-152 ADVANCED AUDIO EDITING TECHNIQUES, 1 CREDIT**

Additional advanced training in Pro Tools audio software techniques. The student will learn techniques in audio editing using warp audio, Beat Detective, and other plug-ins not covered in the MUS-107 through MUS-109 series.

**Prerequisites:** MUS-107 or MUS-143 or equivalent

oc	<b>MUS-152-01</b>	<b>340012 TH</b>			<b>6:30 -9:20 PM</b>	
	D. BADSTUBNER	\$126.00	\$13.00	\$0.00		\$139.00
	Meets: 5/22-6/5.					

**MUS-161 SONGWRITING II, 2 CREDITS**

This course is a continuation of MUS-160. Further explores the elements of songwriting, focuses on creating a digital composition portfolio and public performance.

OC LCT	<b>MUS-161-01</b>	<b>336125 T</b>			<b>1-2:50 PM</b>	
	L. POLLARD	\$252.00	\$26.00	\$50.00		\$328.00

**MUS-170 INTRODUCTION TO SCORING MUSIC FOR MEDIA, 2 CREDITS**

Introduction to the analysis, writing, and production of basic film, video, and/or video game music scores and spotting music cues.

**Prerequisites:** MUS-102 or MUS-112 or MUS-143

oc LCT	<b>MUS-170-01</b>	<b>336127 W</b>			<b>10-11:50 AM</b>	
	D. FLESCHNER	\$252.00	\$26.00	\$0.00		\$278.00

**MUS-188 PERFORMANCE ATTENDANCE, 0 CREDIT**

The student is expected to attend a minimum of five live performances approved by the Music Department for each term registered.

oc	<b>MUS-188-01</b>	<b>340004 T</b>			<b>12-12:50 PM</b>	
	L. CAMPBELL	\$0.00	\$0.00	\$0.00		\$0.00
	Find free on-campus performances for students at <a href="http://clackamasmusic.eventbrite.com">clackamasmusic.eventbrite.com</a> .					

**MUS-189 PERFORMANCE & REPERTOIRE, 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

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 performance forum required for all students studying a classical instrument or voice at the MUP-171 to MUP-191 and MUP-271 to MUP-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. Required: Student Petition.

OC LCT	<b>MUS-189-01</b>	<b>336129 W</b>			<b>11-11:50 AM</b>	
	J. ISRAELS	\$126.00	\$13.00	\$0.00		\$139.00
	B. MICHAEL					

OC LCT	<b>MUS-189-02</b>	<b>336131 W</b>			<b>12-12:50 PM</b>	
	J. ISRAELS	\$126.00	\$13.00	\$0.00		\$139.00
	B. MICHAEL					

**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>336133 MW</b>			<b>10-11:50 AM</b>	
	K. DEITZ	\$504.00	\$52.00	\$0.00		\$556.00

ONL	<b>MUS-206-02</b>	<b>336135</b>				
	J. HEDBERG	\$504.00	\$52.00	\$0.00		\$556.00

**MUS-213 MUSIC THEORY II, 3 CREDITS**

For non-majors and music majors. Continuation of the study of harmony, period styles after the 18th century through written exercises, compositions, listening, and analysis. This is the third term of a three-term sequence, which includes the 19th and 20th century idioms such as Romanticism, impressionism, post-Romanticism, and serialism.

**Prerequisites:** MUS-212

**Corequisites:** MUS-216 and MUS-226

oc	<b>MUS-213-01</b>	<b>336137 MW</b>			<b>10-11:20 AM</b>	
	R. OLASON	\$378.00	\$39.00	\$269.00		\$686.00

**MUS-216 KEYBOARD SKILLS II, 2 CREDITS**

Third course in the sequential second year of advanced keyboard applications covering the materials of diatonic and chromatic music.

**Corequisites:** MUS-213

**Prerequisites:** MUS-215

OC LCT	<b>MUS-216-01</b>	<b>336138 MW</b>			<b>2-2:50 PM</b>	
	R. OLASON	\$252.00	\$26.00	\$85.00		\$363.00

**MUS-220 MPT SEMINAR III, 1 CREDIT**

Third in 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-219

oc	<b>MUS-220-01</b>	<b>336139 M</b>			<b>12-12:50 PM</b>	
	K. HOLLINGSWORTH	\$126.00	\$13.00	\$0.00		\$139.00
	Field Trip TBA.					

**MUS-226 AURAL SKILLS II, 2 CREDITS**

Third 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.

**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		
<b>Corequisites:</b> MUS-213							OC LCT	<b>MUP-100-04 335886 TBA</b>	J. ISRAELS	\$126.00	\$13.00	\$225.00	\$364.00	
<b>Prerequisites:</b> MUS-225														
OC LCT	<b>MUS-226-01 336140 MW</b>	R. OLASON	\$252.00	\$26.00	\$85.00	\$363.00								
					<b>1-1:50 PM</b>									
<b>MUS-247 SOUND FOR MEDIA, 3 CREDITS</b>							OC LCT	<b>MUP-100-05 335887 TBA</b>	B. MICHAEL	\$126.00	\$13.00	\$225.00	\$364.00	
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.														
<b>Recommended:</b> Experience using a DAW (Digital Audio Workstation) or video editing software							OC LCT	<b>MUP-100-06 335888 TBA</b>	C. AVERILL	\$126.00	\$13.00	\$225.00	\$364.00	
OC	<b>MUS-247-01 336143 W</b>	B. ROSE	\$378.00	\$39.00	\$0.00	\$417.00								
					<b>3-5:50 PM</b>									
<b>MUS-280 MUSIC/CWE, 2-6 CREDITS (VAR)</b>							OC LCT	<b>MUP-100-07 335889 TBA</b>	K. DEITZ	\$126.00	\$13.00	\$225.00	\$364.00	
Cooperative work experience. Provides students with on-the-job work experience in the field of music. Required: Student Petition.														
<b>Corequisites:</b> CWE-281							OC LCT	<b>MUP-100-08 335890 TBA</b>	D. TUTMARK	\$126.00	\$13.00	\$225.00	\$364.00	
<b>Prerequisites:</b> MUS-107, MUS-140, and MUS-142														
OC LCT	<b>MUS-280-01 336144</b>	C. DOGGETT	\$756.00	\$78.00	\$144.00	\$978.00V	OC LCT	<b>MUP-100-09 335891 TBA</b>	A. CSIKOS	\$126.00	\$13.00	\$225.00	\$364.00	
						Required: Student Petition. Corequisite: Take the following CWE-281-06.								
OC	<b>MUS-280-02 336145</b>	G. HARRIS	\$756.00	\$78.00	\$144.00	\$978.00V	OC LCT	<b>MUP-100-10 335892 TBA</b>	G. HARRIS	\$126.00	\$13.00	\$225.00	\$364.00	
						Required: Student Petition. Corequisite: Take the following CWE-281-06.								
<b>XMUP-0001 UNISTUS CHOIR, 0 CREDIT</b>							OC LCT	<b>MUP-100-11 335893 TBA</b>	J. KLAUSE	\$126.00	\$13.00	\$225.00	\$364.00	
Select vocal ensemble which rehearses and performs choral music from the Renaissance to the 20th century, including the music of Estonia. Provides preparation for entering professional fields of music and performance. Emphasis on a cappella singing applied to appropriate chamber music. Provides an environment whereby individual students, selected according to their talents and attitudes, may assist the group at large in achieving its full potential which is that of excellence in choral expression. The achievement of this potential is our goal. By audition.														
OC LCT	<b>XMUP-0001-01 336174 M</b>	L. CLINE	\$0.00	\$0.00	\$0.00	\$0.00	OC LCT	<b>MUP-100-12 335894 TBA</b>	C. DOGGETT	\$126.00	\$13.00	\$225.00	\$364.00	
					<b>6:30 -9:20 PM</b>									
<b>Music: Individual Lessons - Non-Music Majors</b>							OC	<b>MUP-100-13 339976 TBA</b>	K. GIFFORD	\$126.00	\$13.00	\$225.00	\$364.00	
<b>MUP-100 INDIVIDUAL LESSONS: NON-MUSIC MAJORS, 1 CREDIT</b>														
Private lessons for beginners, non-music majors, and students who receive a low rating in MUP-171 through MUP-191 auditions. Brass, woodwind, percussion, string and keyboard instruments, and voice. May be repeated for up to 12 credits. Required: Student Petition.							OC	<b>MUP-100-14 339977 TBA</b>	T. STOJANOVIC	\$126.00	\$13.00	\$225.00	\$364.00	
OC LCT	<b>MUP-100-01 335883 TBA</b>	K. POLITZER	\$126.00	\$13.00	\$225.00	\$364.00	OC	<b>MUP-100-15 339978 TBA</b>	C. LEE	\$126.00	\$13.00	\$225.00	\$364.00	
						Required: Student Petition. Jazz Piano Lessons.								
OC LCT	<b>MUP-100-02 335884 TBA</b>	Y. MIYAMA	\$126.00	\$13.00	\$225.00	\$364.00	OC	<b>MUP-100-16 339979 TBA</b>	B. GARDINER	\$126.00	\$13.00	\$225.00	\$364.00	
						Required: Student Petition. Piano Lessons.								
OC LCT	<b>MUP-100-03 335885 TBA</b>	D. FLECHNER	\$126.00	\$13.00	\$225.00	\$364.00	OC	<b>MUP-100-17 340008 TBA</b>	L. CAMPBELL	\$126.00	\$13.00	\$225.00	\$364.00	
						Required: Student Petition. Rock, Blues, and Pop Piano Lessons.								
OC LCT	<b>MUP-100-04 335886 TBA</b>	J. ISRAELS	\$126.00	\$13.00	\$225.00	\$364.00	OC	<b>MUP-100-21 339980 TBA</b>	K. POLITZER	\$252.00	\$26.00	\$450.00	\$728.00	
						Required: Student Petition. Rock, Blues, and Pop Piano Lessons.								
OC LCT	<b>MUP-100-05 335887 TBA</b>	B. MICHAEL	\$126.00	\$13.00	\$225.00	\$364.00	OC	<b>MUP-100-22 339981 TBA</b>	Y. MIYAMA	\$252.00	\$26.00	\$450.00	\$728.00	
						Required: Student Petition. Piano Lessons.								
OC LCT	<b>MUP-100-06 335888 TBA</b>	C. AVERILL	\$126.00	\$13.00	\$225.00	\$364.00	OC	<b>MUP-100-23 339982 TBA</b>	D. FLECHNER	\$252.00	\$26.00	\$450.00	\$728.00	
						Required: Student Petition. Rock, Blues, and Pop Piano Lessons.								
OC LCT	<b>MUP-100-07 335889 TBA</b>	K. DEITZ	\$126.00	\$13.00	\$225.00	\$364.00	OC	<b>MUP-100-24 339983 TBA</b>	J. ISRAELS	\$252.00	\$26.00	\$450.00	\$728.00	
						Required: Student Petition. Bass Lessons.								
OC LCT	<b>MUP-100-08 335890 TBA</b>	D. TUTMARK	\$126.00	\$13.00	\$225.00	\$364.00								
						Required: Student Petition. Guitar Lessons.								
OC LCT	<b>MUP-100-09 335891 TBA</b>	A. CSIKOS	\$126.00	\$13.00	\$225.00	\$364.00								
						Required: Student Petition. Guitar Lessons.								
OC LCT	<b>MUP-100-10 335892 TBA</b>	G. HARRIS	\$126.00	\$13.00	\$225.00	\$364.00								
						Required: Student Petition. Saxophone Lessons.								
OC LCT	<b>MUP-100-11 335893 TBA</b>	J. KLAUSE	\$126.00	\$13.00	\$225.00	\$364.00								
						Required: Student Petition. Trumpet Lessons.								
OC LCT	<b>MUP-100-12 335894 TBA</b>	C. DOGGETT	\$126.00	\$13.00	\$225.00	\$364.00								
						Required: Student Petition. Percussion & Drum Set Lessons.								
OC	<b>MUP-100-13 339976 TBA</b>	K. GIFFORD	\$126.00	\$13.00	\$225.00	\$364.00								
						Required: Student Petition. Flute Lessons.								
OC	<b>MUP-100-14 339977 TBA</b>	T. STOJANOVIC	\$126.00	\$13.00	\$225.00	\$364.00								
						Required: Student Petition. Piano Lessons.								
OC	<b>MUP-100-15 339978 TBA</b>	C. LEE	\$126.00	\$13.00	\$225.00	\$364.00								
						Required: Student Petition. Oboe Lessons.								
OC	<b>MUP-100-16 339979 TBA</b>	B. GARDINER	\$126.00	\$13.00	\$225.00	\$364.00								
						Required: Student Petition. Percussion Lessons.								
OC	<b>MUP-100-17 340008 TBA</b>	L. CAMPBELL	\$126.00	\$13.00	\$225.00	\$364.00								
						Required: Student Petition. Trombone Lessons.								
OC	<b>MUP-100-21 339980 TBA</b>	K. POLITZER	\$252.00	\$26.00	\$450.00	\$728.00								
						Required: Student Petition. Jazz Piano Lessons.								
OC	<b>MUP-100-22 339981 TBA</b>	Y. MIYAMA	\$252.00	\$26.00	\$450.00	\$728.00								
						Required: Student Petition. Piano Lessons.								
OC	<b>MUP-100-23 339982 TBA</b>	D. FLECHNER	\$252.00	\$26.00	\$450.00	\$728.00								
						Required: Student Petition. Rock, Blues, and Pop Piano Lessons.								
OC	<b>MUP-100-24 339983 TBA</b>	J. ISRAELS	\$252.00	\$26.00	\$450.00	\$728.00								
						Required: Student Petition. Rock, Blues, and Pop Piano Lessons.								

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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	Required: Student Petition. Voice Lessons. Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 4/1 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions. <b>MUP-100-25 339984 TBA</b> B. MICHAEL \$252.00 \$26.00 \$450.00 \$728.00 Required: Student Petition. Voice Lessons. Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 4/1 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions.									
oc	<b>MUP-100-26 339985 TBA</b> C. AVERILL \$252.00 \$26.00 \$450.00 \$728.00 Required: Student Petition. Cello Lessons.									
oc	<b>MUP-100-27 339986 TBA</b> K. DEITZ \$252.00 \$26.00 \$450.00 \$728.00 Required: Student Petition. Bass Lessons.									
oc	<b>MUP-100-28 339987 TBA</b> D. TUTMARK \$252.00 \$26.00 \$450.00 \$728.00 Required: Student Petition. Guitar Lessons.									
oc	<b>MUP-100-29 339988 TBA</b> A. CSIKOS \$252.00 \$26.00 \$450.00 \$728.00 Required: Student Petition. Jazz Guitar Lessons.									
oc	<b>MUP-100-30 339989 TBA</b> G. HARRIS \$252.00 \$26.00 \$450.00 \$728.00 Required: Student Petition. Saxophone Lessons.									
oc	<b>MUP-100-31 339990 TBA</b> J. KLAUSE \$252.00 \$26.00 \$450.00 \$728.00 Required: Student Petition. Trumpet Lessons.									
oc	<b>MUP-100-32 339991 TBA</b> C. DOGGETT \$252.00 \$26.00 \$450.00 \$728.00 Required: Student Petition. Percussion & Drumset Lessons.									
oc	<b>MUP-100-33 339992 TBA</b> K. GIFFORD \$252.00 \$26.00 \$450.00 \$728.00 Required: Student Petition. Flute Lessons.									
oc	<b>MUP-100-34 339993 TBA</b> T. STOJANOVIC \$252.00 \$26.00 \$450.00 \$728.00 Required: Student Petition. Piano Lessons.									
oc	<b>MUP-100-35 339994 TBA</b> C. LEE \$252.00 \$26.00 \$450.00 \$728.00 Required: Student Petition. Oboe Lessons.									
oc	<b>MUP-100-36 339995 TBA</b> B. GARDINER \$252.00 \$26.00 \$450.00 \$728.00 Required: Student Petition. Percussion Lessons.									
oc	<b>MUP-100-37 340009 TBA</b> L. CAMPBELL \$126.00 \$13.00 \$225.00 \$364.00 Required: Student Petition. Trombone Lessons.									
oc	<b>MUP-171-02 339999 TBA</b> T. STOJANOVIC \$252.00 \$26.00 \$450.00 \$728.00 Required: Student Petition.									
	<b>MUP-171J INDIVIDUAL LESSONS: JAZZ PIANO, 2 CREDITS</b> Required: College-level performance ability									
oc LCT	<b>MUP-171J-01 335908 TBA</b> K. POLITZER \$252.00 \$26.00 \$450.00 \$728.00 Required: Student Petition.									
	<b>MUP-171R INDIVIDUAL LESSONS: ROCK, BLUES, POP PIANO, 2 CREDITS</b> Required: College-level performance ability									
oc LCT	<b>MUP-171R-01 335909 TBA</b> D. FLESCHNER \$252.00 \$26.00 \$450.00 \$728.00 Required: Student Petition.									
	<b>MUP-172 INDIVIDUAL LESSONS: ORGAN, 2 CREDITS</b> Required: College-level performance ability Corequisites: MUS-189									
oc LCT	<b>MUP-172-01 335911 TBA</b> J. HOLLAND \$252.00 \$26.00 \$450.00 \$728.00 Required: Student Petition.									
	<b>MUP-174 INDIVIDUAL LESSONS: VOICE, 2 CREDITS</b> Required: College-level performance ability Corequisites: MUS-189									
oc LCT	<b>MUP-174-01 335913 TBA</b> J. ISRAELS \$252.00 \$26.00 \$450.00 \$728.00 Required: Student Petition. Voice Lessons. Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 4/1 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions.									
oc LCT	<b>MUP-174-02 335915 TBA</b> B. MICHAEL \$252.00 \$26.00 \$450.00 \$728.00 Required: Student Petition. Voice Lessons. Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 4/1 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions.									
	<b>MUP-174J INDIVIDUAL LESSONS: JAZZ VOICE, 2 CREDITS</b> Required: College-level performance ability Corequisites: MUS-189									
oc LCT	<b>MUP-174J-01 335916 TBA</b> J. ISRAELS \$252.00 \$26.00 \$450.00 \$728.00 Required: Student Petition. Voice Lessons. Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 4/1 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions.									
oc LCT	<b>MUP-174J-02 335918 TBA</b> B. MICHAEL \$252.00 \$26.00 \$450.00 \$728.00 Required: Student Petition. Voice Lessons. Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 4/1 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions.									
	<b>MUP-174R INDIVIDUAL LESSONS: ROCK, BLUES, POP VOICE, 2 CREDITS</b>									

**Music: Individual Lessons - Year 1**

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.

**MUP-171 INDIVIDUAL LESSONS: PIANO, 2 CREDITS**

Required: College-level performance ability

Corequisites: MUS-189

oc LCT	<b>MUP-171-01 335907 TBA</b> Y. MIYAMA \$252.00 \$26.00 \$450.00 \$728.00 Required: Student Petition.
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	Instructor	Instructor	Tuition	Fee	Crs. Fee			Instructor	Instructor	Tuition	Fee	Crs. Fee	
<b>Required:</b> College-level performance ability							<b>Required:</b> College-level performance ability						
oc	<b>MUP-174R-01 337940 TBA</b> J. ISRAELS		\$252.00	\$26.00	\$450.00	\$728.00	oc LCT	<b>MUP-179-01 335931 TBA</b> TBA		\$252.00	\$26.00	\$450.00	\$728.00
Required: Student Petition. Voice Lessons. Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 4/1 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions.							Required: Student Petition.						
oc	<b>MUP-174R-02 337941 TBA</b> B. MICHAEL		\$252.00	\$26.00	\$450.00	\$728.00	<b>MUP-180 INDIVIDUAL LESSONS: GUITAR, 2 CREDITS</b>						
Required: Student Petition. Voice Lessons. Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 4/1 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions.							<b>Required:</b> College-level performance ability						
<b>MUP-175 INDIVIDUAL LESSONS: VIOLIN, 2 CREDITS</b>							<b>Corequisites:</b> MUS-189						
<b>Required:</b> College-level performance ability							oc LCT <b>MUP-180-01 335933 TBA</b> D. TUTMARK						
<b>Corequisites:</b> MUS-189							\$252.00 \$26.00 \$450.00 \$728.00						
oc LCT	<b>MUP-175-01 335919 TBA</b> TBA		\$252.00	\$26.00	\$450.00	\$728.00	Required: Student Petition.						
Required: Student Petition.							<b>MUP-180J INDIVIDUAL LESSONS: JAZZ GUITAR, 2 CREDITS</b>						
<b>MUP-176 INDIVIDUAL LESSONS: VIOLA, 2 CREDITS</b>							<b>Required:</b> College-level performance ability						
<b>Required:</b> College-level performance ability							oc LCT <b>MUP-180J-01 335935 TBA</b> J. RADSLIFF						
<b>Corequisites:</b> MUS-189							\$252.00 \$26.00 \$450.00 \$728.00						
oc LCT	<b>MUP-176-01 335921 TBA</b> H. OSEAS		\$252.00	\$26.00	\$450.00	\$728.00	Required: Student Petition.						
Required: Student Petition.							<b>MUP-180R INDIVIDUAL LESSONS: ROCK, BLUES, POP GUITAR, 2 CREDITS</b>						
<b>MUP-177 INDIVIDUAL LESSONS: CELLO, 2 CREDITS</b>							<b>Required:</b> College-level performance ability						
<b>Required:</b> College-level performance ability							oc LCT <b>MUP-180R-01 335936 TBA</b> A. CSIKOS						
<b>Corequisites:</b> MUS-189							\$252.00 \$26.00 \$450.00 \$728.00						
oc LCT	<b>MUP-177-01 335923 TBA</b> C. AVERILL		\$252.00	\$26.00	\$450.00	\$728.00	Required: Student Petition.						
Required: Student Petition.							<b>MUP-181 INDIVIDUAL LESSONS: FLUTE, 2 CREDITS</b>						
<b>MUP-178 INDIVIDUAL LESSONS: BASS, 2 CREDITS</b>							<b>Required:</b> College-level performance ability						
<b>Required:</b> College-level performance ability							<b>Corequisites:</b> MUS-189						
oc LCT	<b>MUP-178-01 335925 TBA</b> K. DEITZ		\$252.00	\$26.00	\$450.00	\$728.00	oc LCT <b>MUP-181-01 335938 TBA</b> S. TIEDEMANN						
Required: Student Petition.							\$252.00 \$26.00 \$450.00 \$728.00						
Required: Student Petition.							Required: Student Petition.						
<b>MUP-178J INDIVIDUAL LESSONS: JAZZ BASS, 2 CREDITS</b>							<b>MUP-181J INDIVIDUAL LESSONS: JAZZ FLUTE, 2 CREDITS</b>						
<b>Required:</b> College-level performance ability							<b>Required:</b> College-level performance ability						
oc LCT	<b>MUP-178J-01 335927 TBA</b> K. DEITZ		\$252.00	\$26.00	\$450.00	\$728.00	oc LCT <b>MUP-181J-01 335939 TBA</b> G. HARRIS						
Required: Student Petition.							\$252.00 \$26.00 \$450.00 \$728.00						
oc LCT	<b>MUP-178J-02 335929 TBA</b> T. WAKELING		\$252.00	\$26.00	\$450.00	\$728.00	Required: Student Petition.						
Required: Student Petition.							<b>MUP-182 INDIVIDUAL LESSONS: OBOE, 2 CREDITS</b>						
<b>MUP-178R INDIVIDUAL LESSONS: ROCK, BLUES, POP BASS, 2 CREDITS</b>							<b>Required:</b> College-level performance ability						
<b>Required:</b> College-level performance ability							<b>Corequisites:</b> MUS-189						
oc	<b>MUP-178R-01 337942 TBA</b> K. DEITZ		\$252.00	\$26.00	\$450.00	\$728.00	oc LCT <b>MUP-182-01 335941 TBA</b> C. LEE						
Required: Student Petition.							\$252.00 \$26.00 \$450.00 \$728.00						
Required: Student Petition.							Required: Student Petition.						
<b>MUP-179 INDIVIDUAL LESSONS: HARP, 2 CREDITS</b>							<b>MUP-183 INDIVIDUAL LESSONS: CLARINET, 2 CREDITS</b>						
<b>Required:</b> College-level performance ability							<b>Required:</b> College-level performance ability						
<b>Corequisites:</b> MUS-189							<b>Corequisites:</b> MUS-189						
oc LCT	<b>MUP-183J-01 335945 TBA</b> TBA		\$252.00	\$26.00	\$450.00	\$728.00	oc LCT <b>MUP-183-01 335943 TBA</b> L. DE MARTINO						
Required: Student Petition.							\$252.00 \$26.00 \$450.00 \$728.00						
Required: Student Petition.							Required: Student Petition.						

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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		
<b>Required:</b> College-level performance ability							OC LCT	<b>MUP-184-01</b>	<b>335946 TBA</b>				
<b>Corequisites:</b> MUS-189								G. HARRIS	\$252.00	\$26.00	\$450.00	\$728.00	
Required: Student Petition.													
<b>MUP-184J INDIVIDUAL LESSONS: JAZZ SAXOPHONE, 2 CREDITS</b>													
<b>Required:</b> College-level performance ability													
OC LCT	<b>MUP-184J-01</b>	<b>335947 TBA</b>											
	G. HARRIS	\$252.00	\$26.00	\$450.00	\$728.00								
Required: Student Petition.													
<b>MUP-185 INDIVIDUAL LESSONS: BASSOON, 2 CREDITS</b>													
<b>Required:</b> College-level performance ability													
<b>Corequisites:</b> MUS-189													
OC LCT	<b>MUP-185-01</b>	<b>335948 TBA</b>											
	N. BUETTI	\$252.00	\$26.00	\$450.00	\$728.00								
Required: Student Petition.													
<b>MUP-186 INDIVIDUAL LESSONS: TRUMPET, 2 CREDITS</b>													
<b>Required:</b> College-level performance ability													
<b>Corequisites:</b> MUS-189													
OC LCT	<b>MUP-186-01</b>	<b>335950 TBA</b>											
	J. KLAUSE	\$252.00	\$26.00	\$450.00	\$728.00								
Required: Student Petition.													
<b>MUP-186J INDIVIDUAL LESSONS: JAZZ TRUMPET, 2 CREDITS</b>													
<b>Required:</b> College-level performance ability													
OC LCT	<b>MUP-186J-01</b>	<b>335951 TBA</b>											
	Q. WALKER	\$252.00	\$26.00	\$450.00	\$728.00								
Required: Student Petition.													
<b>MUP-187 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</b>	<b>335953 TBA</b>											
	R. OLASON	\$252.00	\$26.00	\$450.00	\$728.00								
Required: Student Petition.													
<b>MUP-188 INDIVIDUAL LESSONS: TROMBONE, 2 CREDITS</b>													
<b>Required:</b> College-level performance ability													
<b>Corequisites:</b> MUS-189													
OC LCT	<b>MUP-188-01</b>	<b>335954 TBA</b>											
	L. CAMPBELL	\$252.00	\$26.00	\$450.00	\$728.00								
Required: Student Petition.													
OC	<b>MUP-188-02</b>	<b>340000 TBA</b>											
	C. RENEAU	\$252.00	\$26.00	\$450.00	\$728.00								
Required: Student Petition.													
<b>MUP-188J INDIVIDUAL LESSONS: JAZZ TROMBONE, 2 CREDITS</b>													
<b>Required:</b> College-level performance ability													
OC LCT	<b>MUP-188J-01</b>	<b>335956 TBA</b>											
	L. CAMPBELL	\$252.00	\$26.00	\$450.00	\$728.00								
Required: Student Petition.													
<b>MUP-189 INDIVIDUAL LESSONS: EUPHONIUM, 2 CREDITS</b>													
<b>Required:</b> College-level performance ability													
<b>Corequisites:</b> MUS-189													

OC LCT	<b>MUP-189-01</b>	<b>335958 TBA</b>											
	TBA	\$252.00	\$26.00	\$450.00	\$728.00								
Required: Student Petition.													
<b>MUP-190 INDIVIDUAL LESSONS: TUBA, 2 CREDITS</b>													
<b>Required:</b> College-level performance ability													
<b>Corequisites:</b> MUS-189													
OC LCT	<b>MUP-190-01</b>	<b>335960 TBA</b>											
	TBA	\$252.00	\$26.00	\$450.00	\$728.00								
Required: Student Petition.													
<b>MUP-191 INDIVIDUAL LESSONS: PERCUSSION, 2 CREDITS</b>													
<b>Required:</b> College-level performance ability													
<b>Corequisites:</b> MUS-189													
OC LCT	<b>MUP-191-01</b>	<b>335962 TBA</b>											
	B. GARDINER	\$252.00	\$26.00	\$450.00	\$728.00								
Required: Student Petition.													
<b>MUP-191J INDIVIDUAL LESSONS: JAZZ PERCUSSION, 2 CREDITS</b>													
<b>Required:</b> College-level performance ability													
OC LCT	<b>MUP-191J-01</b>	<b>335964 TBA</b>											
	C. DOGGETT	\$252.00	\$26.00	\$450.00	\$728.00								
Required: Student Petition.													
<b>MUP-191R INDIVIDUAL LESSONS: ROCK, BLUES, POP DRUMSET, 2 CREDITS</b>													
<b>Required:</b> College-level performance ability													
OC	<b>MUP-191R-01</b>	<b>337943 TBA</b>											
	C. DOGGETT	\$252.00	\$26.00	\$450.00	\$728.00								
Required: Student Petition.													
<b>MUP-192T INDIVIDUAL LESSONS: AUDIO TECH, 2 CREDITS</b>													
<b>Required:</b> College-level performance ability													
OC	<b>MUP-192T-01</b>	<b>337944 TBA</b>											
	M. BAIRD	\$252.00	\$26.00	\$450.00	\$728.00								
Required: Student Petition.													
OC	<b>MUP-192T-02</b>	<b>337945 TBA</b>											
	D. BADSTUBNER	\$252.00	\$26.00	\$450.00	\$728.00								
Required: Student Petition.													
OC	<b>MUP-192T-03</b>	<b>337946 TBA</b>											
	R. SOMMERS	\$252.00	\$26.00	\$450.00	\$728.00								
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.*

<b>MUP-271 INDIVIDUAL LESSONS: PIANO, 2 CREDITS</b>														
<b>Prerequisites:</b> MUP-171 (6 credits)														
<b>Corequisites:</b> MUS-189														
<b>Required:</b> Sophomore-level performance ability														
OC LCT	<b>MUP-271-01</b>	<b>335991 TBA</b>												
	Y. MIYAMA	\$252.00	\$26.00	\$450.00	\$728.00									
OC	<b>MUP-271-02</b>	<b>340001 TBA</b>												
	T. STOJANOVIC	\$252.00	\$26.00	\$450.00	\$728.00									
<b>MUP-271J INDIVIDUAL LESSONS: JAZZ PIANO, 2 CREDITS</b>														

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	Instructor	Tuition	Fee	Crs. Fee				Instructor	Tuition	Fee	Crs. Fee			
<b>Prerequisites:</b> MUP-171J (6 credits) <b>Required:</b> Sophomore-level performance ability							OC LCT	<b>MUP-276-01</b>	<b>336013</b>	<b>TBA</b>				
	H. OSEAS	\$252.00	\$26.00	\$450.00		\$728.00								
<b>MUP-277 INDIVIDUAL LESSONS: CELLO, 2 CREDITS</b> <b>Prerequisites:</b> MUP-177 (6 credits) <b>Corequisites:</b> MUS-189 <b>Required:</b> Sophomore-level performance ability							OC LCT	<b>MUP-277-01</b>	<b>336016</b>	<b>TBA</b>				
	C. AVERILL	\$252.00	\$26.00	\$450.00		\$728.00								
<b>MUP-278 INDIVIDUAL LESSONS: BASS, 2 CREDITS</b> <b>Prerequisites:</b> MUP-178 (6 credits) <b>Corequisites:</b> MUS-189 <b>Required:</b> Sophomore-level performance ability							OC LCT	<b>MUP-278-01</b>	<b>336019</b>	<b>TBA</b>				
	K. DEITZ	\$252.00	\$26.00	\$450.00		\$728.00								
<b>MUP-278J INDIVIDUAL LESSONS: JAZZ BASS, 2 CREDITS</b> <b>Prerequisites:</b> MUP-178J (6 credits) <b>Required:</b> Sophomore-level performance ability							OC LCT	<b>MUP-278J-01</b>	<b>336021</b>	<b>TBA</b>				
	K. DEITZ	\$252.00	\$26.00	\$450.00		\$728.00								
OC LCT	<b>MUP-278J-02</b>	<b>336024</b>	<b>TBA</b>											
	T. WAKELING	\$252.00	\$26.00	\$450.00		\$728.00								
<b>MUP-278R INDIVIDUAL LESSONS: ROCK, BLUES, POP BASS, 2 CREDITS</b> <b>Prerequisites:</b> MUP-178R (6 credits) <b>Required:</b> Sophomore-level performance ability							OC	<b>MUP-278R-01</b>	<b>337949</b>	<b>TBA</b>				
	K. DEITZ	\$252.00	\$26.00	\$450.00		\$728.00								
<b>MUP-279 INDIVIDUAL LESSONS: HARP, 2 CREDITS</b> <b>Prerequisites:</b> MUP-179 (6 credits) <b>Corequisites:</b> MUS-189 <b>Required:</b> Sophomore-level performance ability							OC LCT	<b>MUP-279-01</b>	<b>336027</b>	<b>TBA</b>				
	TBA	\$252.00	\$26.00	\$450.00		\$728.00								
<b>MUP-280 INDIVIDUAL LESSONS: GUITAR, 2 CREDITS</b> <b>Prerequisites:</b> MUP-180 (6 credits) <b>Corequisites:</b> MUS-189 <b>Required:</b> Sophomore-level performance ability							OC LCT	<b>MUP-280-01</b>	<b>336028</b>	<b>TBA</b>				
	D. TUTMARK	\$252.00	\$26.00	\$450.00		\$728.00								
<b>MUP-280J INDIVIDUAL LESSONS: JAZZ GUITAR, 2 CREDITS</b> <b>Prerequisites:</b> MUP-180J (6 credits) <b>Required:</b> Sophomore-level performance ability							OC LCT	<b>MUP-280J-01</b>	<b>336032</b>	<b>TBA</b>				
	J. RADSLIFF	\$252.00	\$26.00	\$450.00		\$728.00								
<b>MUP-280R INDIVIDUAL LESSONS: ROCK, BLUES, POP GUITAR, 2 CREDITS</b> <b>Prerequisites:</b> MUP-180R (6 credits) <b>Required:</b> Sophomore-level performance ability							OC LCT	<b>MUP-280R-01</b>	<b>336034</b>	<b>TBA</b>				
	A. CSIKOS	\$252.00	\$26.00	\$450.00		\$728.00								
<b>MUP-281 INDIVIDUAL LESSONS: FLUTE, 2 CREDITS</b>														

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	Instructor		Tuition	Fee	Crs. Fee			Instructor		Tuition	Fee	Crs. Fee	
<b>Prerequisites:</b> MUP-181 (6 credits) <b>Corequisites:</b> MUS-189 <b>Required:</b> Sophomore-level performance ability							<b>Prerequisites:</b> MUP-186J (6 credits) <b>Required:</b> Sophomore-level performance ability						
OC LCT	<b>MUP-281-01</b>	<b>336035 TBA</b>					OC LCT	<b>MUP-286J-01</b>	<b>336057 TBA</b>				
	S. TIEDEMANN	\$252.00	\$26.00	\$450.00	\$728.00		Q. WALKER	\$252.00	\$26.00	\$450.00	\$728.00		
<b>MUP-281J INDIVIDUAL LESSONS: JAZZ FLUTE, 2 CREDITS</b> <b>Prerequisites:</b> MUP-181J (6 credits) <b>Required:</b> Sophomore-level performance ability							<b>MUP-287 INDIVIDUAL LESSONS: FRENCH HORN, 2 CREDITS</b> <b>Prerequisites:</b> MUP-187 (6 credits) <b>Corequisites:</b> MUS-189 <b>Required:</b> Sophomore-level performance ability						
OC LCT	<b>MUP-281J-01</b>	<b>336038 TBA</b>					OC LCT	<b>MUP-287-01</b>	<b>336060 TBA</b>				
	G. HARRIS	\$252.00	\$26.00	\$450.00	\$728.00		R. OLASON	\$252.00	\$26.00	\$450.00	\$728.00		
<b>MUP-282 INDIVIDUAL LESSONS: OBOE, 2 CREDITS</b> <b>Prerequisites:</b> MUP-182 (6 credits) <b>Corequisites:</b> MUS-189 <b>Required:</b> Sophomore-level performance ability							<b>MUP-288 INDIVIDUAL LESSONS: TROMBONE, 2 CREDITS</b> <b>Prerequisites:</b> MUP-188 (6 credits) <b>Corequisites:</b> MUS-189 <b>Required:</b> Sophomore-level performance ability						
OC LCT	<b>MUP-282-01</b>	<b>336039 TBA</b>					OC LCT	<b>MUP-288-01</b>	<b>336061 TBA</b>				
	C. LEE	\$252.00	\$26.00	\$450.00	\$728.00		L. CAMPBELL	\$252.00	\$26.00	\$450.00	\$728.00		
<b>MUP-283 INDIVIDUAL LESSONS: CLARINET, 2 CREDITS</b> <b>Prerequisites:</b> MUP-183 (6 credits) <b>Corequisites:</b> MUS-189 <b>Required:</b> Sophomore-level performance ability							<b>MUP-288J INDIVIDUAL LESSONS: JAZZ TROMBONE, 2 CREDITS</b> <b>Prerequisites:</b> MUP-188J (6 credits) <b>Required:</b> Sophomore-level performance ability						
OC LCT	<b>MUP-283-01</b>	<b>336042 TBA</b>					OC LCT	<b>MUP-288J-01</b>	<b>336064 TBA</b>				
	L. DE MARTINO	\$252.00	\$26.00	\$450.00	\$728.00		L. CAMPBELL	\$252.00	\$26.00	\$450.00	\$728.00		
<b>MUP-283J INDIVIDUAL LESSONS: JAZZ CLARINET, 2 CREDITS</b> <b>Prerequisites:</b> MUP-183J (6 credits) <b>Required:</b> Sophomore-level performance ability							<b>MUP-289 INDIVIDUAL LESSONS: EUPHONIUM, 2 CREDITS</b> <b>Prerequisites:</b> MUP-189 (6 credits) <b>Corequisites:</b> MUS-189 <b>Required:</b> Sophomore-level performance ability						
OC LCT	<b>MUP-283J-01</b>	<b>336044 TBA</b>					OC LCT	<b>MUP-289-01</b>	<b>336066 TBA</b>				
	TBA	\$252.00	\$26.00	\$450.00	\$728.00		TBA	\$252.00	\$26.00	\$450.00	\$728.00		
<b>MUP-284 INDIVIDUAL LESSONS: SAXOPHONE, 2 CREDITS</b> <b>Prerequisites:</b> MUP-184 (6 credits) <b>Corequisites:</b> MUS-189 <b>Required:</b> Sophomore-level performance ability							<b>MUP-290 INDIVIDUAL LESSONS: TUBA, 2 CREDITS</b> <b>Prerequisites:</b> MUP-190 (6 credits) <b>Corequisites:</b> MUS-189 <b>Required:</b> Sophomore-level performance ability						
OC LCT	<b>MUP-284-01</b>	<b>336047 TBA</b>					OC LCT	<b>MUP-290-01</b>	<b>336069 TBA</b>				
	G. HARRIS	\$252.00	\$26.00	\$450.00	\$728.00		TBA	\$252.00	\$26.00	\$450.00	\$728.00		
<b>MUP-284J INDIVIDUAL LESSONS: JAZZ SAXOPHONE, 2 CREDITS</b> <b>Prerequisites:</b> MUP-184J (6 credits) <b>Required:</b> Sophomore-level performance ability							<b>MUP-291 INDIVIDUAL LESSONS: PERCUSSION, 2 CREDITS</b> <b>Prerequisites:</b> MUP-191 (6 credits) <b>Corequisites:</b> MUS-189 <b>Required:</b> Sophomore-level performance ability						
OC LCT	<b>MUP-284J-01</b>	<b>336049 TBA</b>					OC LCT	<b>MUP-291-01</b>	<b>336071 TBA</b>				
	G. HARRIS	\$252.00	\$26.00	\$450.00	\$728.00		B. GARDINER	\$252.00	\$26.00	\$450.00	\$728.00		
<b>MUP-285 INDIVIDUAL LESSONS: BASSOON, 2 CREDITS</b> <b>Prerequisites:</b> MUP-185 (6 credits) <b>Corequisites:</b> MUS-189 <b>Required:</b> Sophomore-level performance ability							<b>MUP-291J INDIVIDUAL LESSONS: JAZZ PERCUSSION, 2 CREDITS</b> <b>Prerequisites:</b> MUP-191J (6 credits) <b>Required:</b> Sophomore-level performance ability						
OC LCT	<b>MUP-285-01</b>	<b>336051 TBA</b>					OC LCT	<b>MUP-291J-01</b>	<b>336074 TBA</b>				
	N. BUETTI	\$252.00	\$26.00	\$450.00	\$728.00		C. DOGGETT	\$252.00	\$26.00	\$450.00	\$728.00		
<b>MUP-286 INDIVIDUAL LESSONS: TRUMPET, 2 CREDITS</b> <b>Prerequisites:</b> MUP-186 (6 credits) <b>Corequisites:</b> MUS-189 <b>Required:</b> Sophomore-level performance ability							<b>MUP-291R INDIVIDUAL LESSONS: ROCK, BLUES, POP DRUMSET, 2 CREDITS</b> <b>Prerequisites:</b> MUP-191R (6 credits) <b>Required:</b> Sophomore-level performance ability						
OC LCT	<b>MUP-286-01</b>	<b>336054 TBA</b>					oc	<b>MUP-291R-01</b>	<b>337950 TBA</b>				
	J. KLAUSE	\$252.00	\$26.00	\$450.00	\$728.00		C. DOGGETT	\$252.00	\$26.00	\$450.00	\$728.00		
<b>MUP-286J INDIVIDUAL LESSONS: JAZZ TRUMPET, 2 CREDITS</b>													

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<b>MUP-292T</b>	<b>INDIVIDUAL LESSONS: AUDIO TECH, 2 CREDITS</b>					
<b>Prerequisites:</b> MUP-192T (6 credits)						
<b>Required:</b> Sophomore-level performance ability						
oc	<b>MUP-292T-01 337951 TBA</b>					
	M. BAIRD	\$252.00	\$26.00	\$450.00	\$728.00	
oc	<b>MUP-292T-02 337952 TBA</b>					
	D. BADSTUBNER	\$252.00	\$26.00	\$450.00	\$728.00	
oc	<b>MUP-292T-03 337953 TBA</b>					
	R. SOMMERS	\$252.00	\$26.00	\$450.00	\$728.00	

**Nursing**

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-112 FOUNDATIONS OF NURSING IN ACUTE CARE I, 2 CREDITS**

This course introduces the learner to assessment and common interventions (including relevant technical procedures) for care of patients across the lifespan who require acute care, including normal childbirth. Disease/illness trajectories and their translation into clinical practice guidelines and/or standard procedures are considered in relation to their impact on providing culturally sensitive, patient-centered care. Includes classroom and clinical learning experiences.

**Required:** Acceptance into the CCC nursing program  
**Prerequisites:** NRS-111, NRS-111C, NRS 231, and NRS-232  
**Corequisites:** NRS-112C and NRS-233

HAR	<b>NRS-112-01 336146 M</b>				<b>9-12:00 PM</b>	
	R. TARTER	\$252.00	\$26.00	\$300.00	\$578.00	
Restricted: Admitted CCC nursing students only.						

**NRS-112C FOUNDATIONS OF NURSING IN ACUTE CARE I CLINICAL, 4 CREDITS**

This course introduces the learner to assessment and common interventions (including relevant technical procedures) for care of patients across the lifespan who require acute care, including natural childbirth. Disease/illness trajectories and their translation into clinical practice guidelines and/or standard procedures are considered in relation to their impact on providing culturally sensitive, client-centered care. Includes classroom and clinical learning experiences.

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>Required:</b> Acceptance into the CCC nursing program						
<b>Prerequisites:</b> NRS-111, NRS-111C, NRS 231, and NRS-232						
<b>Corequisites:</b> NRS-112 and NRS-233						

HAR	<b>NRS-112C-01 336149 T</b>				<b>9-10:50 AM</b>	
					<b>9-11:50 AM</b>	
					<b>9-12:50 PM</b>	
					<b>9-5:30 PM</b>	
					<b>12-4:00 PM</b>	
	C. BURT	\$504.00	\$52.00	\$450.00	\$1,006.00	
	R. TARTER					
Clinical sites, times, and days may change as needed.						
HAR	<b>NRS-112C-02 336150 T</b>				<b>9-11:50 AM</b>	
					<b>11-12:50 PM</b>	
					<b>9-12:50 PM</b>	
					<b>9-5:30 PM</b>	
					<b>12-4:00 PM</b>	
	C. BURT	\$504.00	\$52.00	\$450.00	\$1,006.00	
	R. TARTER					
Clinical sites, times, and days may change as needed.						
HAR	<b>NRS-112C-03 336152 T</b>				<b>9-11:50 AM</b>	
					<b>1:30 -3:20 PM</b>	
					<b>9-12:50 PM</b>	
					<b>9-5:30 PM</b>	
					<b>12-4:00 PM</b>	
	C. BURT	\$504.00	\$52.00	\$450.00	\$1,006.00	
	R. TARTER					
Clinical sites, times, and days may change as needed.						

**NRS-224 INTEGRATIVE PRACTICUM, 2 CREDITS**

This course is designed to formalize the clinical judgments, knowledge and skills necessary in safe, registered nurse practice. Faculty/Clinical Teaching Associate/Student Triad Model provides a context that allows the student to experience the nursing role in a selected setting, balancing demands of professional nursing and lifelong learner. Analysis and reflection throughout the clinical experience provide the student with evaluative criteria against which they can judge their own performance and develop a practice framework. Includes seminar, self-directed study and clinical experience.

**Required:** Acceptance into the CCC nursing program  
**Prerequisites:** NRS-221 and NRS-221C  
**Corequisites:** NRS-224C

HAR	<b>NRS-224-01 336154 MTW</b>				<b>8-4:30 PM</b>	
					<b>8:30 -12:20 PM</b>	
	G. CONNELL	\$252.00	\$26.00	\$390.00	\$668.00	
	K. RICHARDS					

**NRS-224C INTEGRATIVE PRACTICUM CLINICAL, 7 CREDITS**

This course is designed to formalize the clinical judgments, knowledge and skills necessary in safe, registered nurse practice. Faculty/Clinical Teaching Associate/Student Triad Model provides a context that allows the student to experience the nursing work world in a selected setting, balancing demands of job and lifelong learner. Analysis and reflection throughout the clinical experience provide the student with evaluative criteria against which they can judge their own performance and develop a practice framework. Includes clinical debrief, self-directed study and clinical experience.

**Required:** Acceptance into the CCC nursing program  
**Prerequisites:** NRS-221 and NRS-221C  
**Corequisites:** NRS-224

HAR	<b>NRS-224C-01 336155 M</b>				<b>8:30 -10:30 AM</b>	
	G. CONNELL	\$882.00	\$91.00	\$275.00	\$1,248.00	
	K. RICHARDS					

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	Instructor		Tuition	Fee	Crs. Fee			Instructor		Tuition	Fee	Crs. Fee	
HAR	<b>NRS-224C-02</b> 336156 M	G. CONNELL	\$882.00	\$91.00	\$275.00	\$1,248.00	HAR HYB	<b>NUR-100-01</b> 336161 TW	S. ELLSBERG	\$819.00	\$84.50	\$300.00	\$1,203.50
		K. RICHARDS							K. STIPE				
HAR	<b>NRS-224C-03</b> 336157 M	G. CONNELL	\$882.00	\$91.00	\$275.00	\$1,248.00							
		K. RICHARDS											
HAR	<b>NRS-224C-04</b> 340019 M	G. CONNELL	\$882.00	\$91.00	\$275.00	\$1,248.00	HAR HYB	<b>NUR-100-02</b> 340021 TW	M. BAKER	\$819.00	\$84.50	\$300.00	\$1,203.50
		K. RICHARDS							S. ELLSBERG				
HAR	<b>NRS-224C-05</b> 340020 M	G. CONNELL	\$882.00	\$91.00	\$275.00	\$1,248.00			K. STIPE				
		K. RICHARDS											

**NRS-233 PATHOPHYSIOLOGICAL PROCESSES II, 3 CREDITS**

This sequel to NRS-232 continues to explore pathophysiological processes that contribute to disease states across the lifespan and human responses to those processes. Students will learn to make selected clinical decisions in the context of nursing regarding using current, reliable sources of pathophysiology information, selecting and interpreting focused nursing assessments based on knowledge of pathophysiological processes, teaching persons from diverse populations regarding pathophysiological processes, and communicating with other health professionals regarding pathophysiological processes. The course addresses additional pathophysiological processes not contained in NRS-232.

**Required:** Acceptance into the CCC nursing program  
**Prerequisites:** NRS-111, NRS-111C, NRS-231, and NRS-232  
**Corequisites:** NRS-112 and NRS-112C

HAR	<b>NRS-233-01</b> 336158 M	G. CONNELL	\$378.00	\$39.00	\$260.00	\$677.00	12:30 -2:20 PM
							Restricted: Admitted CCC nursing students only.

**NUR-100 NURSING ASSISTANT I, 6.5 CREDITS**

This course provides the student with the skills to perform basic level nursing care. Certified Nursing Assistants are defined by law as people who assist licensed nursing personnel in the provision of nursing care. Prepares the student to perform routine nursing assistant tasks to clients in sub-acute care settings as well as in the community. Includes didactic and skills lab instruction. Major topics covered include: collaboration with health care team, communication & interpersonal skills, person-centered care, infection control and prevention, safety and emergency procedures, assisting with activities of daily living, mental health and social service needs of clients, technical skills, acquiring observation and reporting skills, documentation of care provided and end-of-life care. Upon successful completion of this course, students may apply for the Oregon State Board of Nursing certification exam for nursing assistants (CNA 1). This course is approved by the Oregon State Board of Nursing. **Required:** Student Petition.

**Prerequisites:** MTH-050 or placement in MTH-060 or higher. WRD-098 or placement in WR-121Z  
**Required:** Must be at least 18 years of age; High School Diploma or equivalent; Must be formally accepted by Health Sciences Admissions and attend a mandatory orientation session. During the orientation, students will start the process for completing all non-academic requirements. Non-academic requirements include: Immunizations (MMR, Varicella, Tdap, Hep B, COVID-19, seasonal Flu); complete a Criminal Background Check; Drug Screen; Tuberculosis test; BLS/CPR for Healthcare Providers certification through American Heart Association (AHA)  
**Corequisites:** NUR-100C

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**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 clinical practicum. **Required:** Student Petition.

**Corequisites:** NUR-100

HAR	<b>NUR-100C-01</b> 336163 TBA	M. BAKER	\$0.00	\$0.00	\$0.00	\$0.00	
		K. STIPE					Required: Student Petition. Details regarding clinical schedule will be given during the mandatory orientation as well as the first few weeks of the course.
HAR	<b>NUR-100C-02</b> 340022 TBA	M. BAKER	\$0.00	\$0.00	\$0.00	\$0.00	
		K. STIPE					Required: Student Petition.
HAR	<b>NUR-100C-03</b> 340023 TBA	J. LAFRANCE	\$0.00	\$0.00	\$0.00	\$0.00	
		K. STIPE					Required: Student Petition.

**Philosophy**

**PHL-101 PHILOSOPHICAL PROBLEMS, 4 CREDITS**

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?

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

OC HYB LCT	<b>PHL-101-01</b> 338074 TH	K. SEVERSON	\$504.00	\$52.00	\$0.00	\$556.00	10-11:50 AM
							No textbook required.
ONL LCT	<b>PHL-101-02</b> 336812	K. HADDIX	\$504.00	\$52.00	\$0.00	\$556.00	
							No textbook required.

**PHL-102 ETHICS, 4 CREDITS**

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.

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

ONL LCT	<b>PHL-102-01</b> 336814	M. BAILEY	\$504.00	\$52.00	\$0.00	\$556.00	
							No textbook required.

**PHL-103 CRITICAL REASONING, 4 CREDITS**

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.

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

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ONL LCT	PHL-103-01	336818			
	K. HADDIX	\$504.00	\$52.00	\$0.00	\$556.00

**PHL-205 MORAL ISSUES, 4 CREDITS**

Examines contemporary moral issues from a selection of different philosophical perspectives. Provides some historical context as background in order to understand our current moment.

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

OC HYB LCT	PHL-205-01	338069 W		1-2:50 PM	
	M. BAILEY	\$504.00	\$52.00	\$0.00	\$556.00
No textbook required.					

**Phlebotomy**

**PHB-110 FUNDAMENTALS OF PHLEBOTOMY, 5 CREDITS**

Introduces students to the practice of phlebotomy and the role of the phlebotomist as part of the healthcare team. Students will become familiar with phlebotomy equipment and learn about basic blood collection procedures. Students will identify medical terminology, anatomy, and physiology related to phlebotomy. Students will learn about specimen collection procedures, safety protocols, quality control, and regulatory compliance related to the role of a phlebotomist. This is an online course with embedded skills demonstrations to help prepare students for the in-person skills lab.

**Corequisites:** PHB-112 and PHB-115

**Recommended Prerequisites:** BI-120, or BI-101 & BI-102, or BI-231 & BI-232 & BI-233. HP-110, and WR-101 or WR-121Z

ONL	PHB-110-01	336168			
	E. ZUNIGA	\$630.00	\$65.00	\$0.00	\$695.00
Required: Student Petition.					

**PHB-112 PHLEBOTOMY TECHNIQUES, 2 CREDITS**

Perform venipuncture, capillary puncture, and specimen processing. This course is designed to provide students with active-learning experiences and hands-on training necessary to develop the skills of an entry-level phlebotomist. The student will learn the procedures performed by a phlebotomist and will become familiar with different types of equipment and techniques applied. Instruction on laboratory safety and standards will be emphasized.

**Corequisites:** PHB-110 and PHB-115

**Recommended Prerequisites:** BI-120, or BI-101 & BI-102, or BI-231 & BI-232 & BI-233. HP-110, and WR-101 or WR-121Z

HAR	PHB-112-01	336170 WF		9-12:00 PM	
	T. BOYD	\$252.00	\$26.00	\$100.00	\$378.00
	E. ZUNIGA	Required: Student Petition.			

HAR	PHB-112-02	336171 WF		1-4:00 PM	
	J. ALLISON	\$252.00	\$26.00	\$100.00	\$378.00
	E. ZUNIGA	Required: Student Petition.			

**PHB-115 PROFESSIONALISM FOR PHLEBOTOMISTS, 1 CREDIT**

Introduces professionalism in the healthcare setting and prepares students for clinical placement.

**Required:** Compliance with the Oregon Health Authority rules for students. Vaccination records for Tdap, MMR, Varicella, Hep B, COVID-19. Completed criminal background check, drug screen, and BLS CPR card through the American Heart Association

**Corequisites:** PHB-110 and PHB-112

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**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		Days (M,T,W,Th,F,S,SU)	Time	Total
	Section No	Crs Reg.			
ONL	PHB-115-01	336173			
	E. ZUNIGA	\$126.00	\$13.00	\$100.00	\$239.00
Required: Student Petition.					

**Physical Education**

**PE-185 PHYSICAL ACTIVITY CLASSES, 1 CREDIT**

**Recommended:** Current physical examination before enrolling

OC	BASKETBALL/POWER II, 1 CREDIT				
	PE-185-082	339947 MW		5:30 -7:20 PM	
	C. WEGNER	\$126.00	\$13.00	\$30.00	\$169.00
Required: Student Petition.					

ONL	CROSS TRAINING VI, 1 CREDIT				
	PE-185-017	339949			
	B. STAMME	\$126.00	\$13.00	\$30.00	\$169.00

OFF HYB	PICKLEBALL I, 1 CREDIT				
	PE-185-001	340025 TTH		1-2:50 PM	
	K. WOODS	\$126.00	\$13.00	\$30.00	\$169.00

OC	SOCCER CONDITIONING II, 1 CREDIT				
	PE-185-037	340026 TTH		5:30 -6:50 PM	
	TBA	\$126.00	\$13.00	\$30.00	\$169.00
Required: Student Petition.					

OC	VOLLEYBALL CONDITIONING II, 1 CREDIT				
	PE-185-071	339948 T		6-8:50 PM	
	A. ITAMI	\$126.00	\$13.00	\$30.00	\$169.00
Required: Student Petition.					

ONL	WALK, JOG, FITNESS III, 1 CREDIT				
	PE-185-002	336719			
	K. MCHONE	\$126.00	\$13.00	\$30.00	\$169.00

ONL	WEIGHT TRAINING III, 1 CREDIT				
	PE-185-040	336725			
	C. WEGNER	\$126.00	\$13.00	\$30.00	\$169.00

OC	WEIGHT TRAINING III, 1 CREDIT				
	PE-185-074	336734 TTH		10-11:20 AM	
	C. WEGNER	\$126.00	\$13.00	\$30.00	\$169.00

ONL	YOGA III, 1 CREDIT				
	PE-185-043	336728			
	E. HANCOCK	\$126.00	\$13.00	\$30.00	\$169.00

**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	336742 W		11-11:50 AM	
		TBA			
	K. MCHONE	\$378.00	\$39.00	\$0.00	\$417.00

**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	336744			
	K. MCHONE	\$378.00	\$39.00	\$0.00	\$417.00

Course No	Course Title, Credits	Section No	Instructor	Crs Reg.	Days (M,T,W,TH,F,S,SU)	Tuition	Fee	Time	Crs. Fee	Total
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**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. May be repeated for up to 12 credits. Required: Student Petition.

**Corequisites:** CWE-281

ONL	<b>PE-280-01</b>	<b>336747</b>	T. NELSON			\$756.00	\$78.00	\$45.00		\$879.00V
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Required: Student Petition. Review the registration process and complete the online application to the program at <http://www.clackamas.edu/CWE-Students.aspx> prior to registering. Corequisite: Take the following CWE-281-06.

**PE-294 PROFESSIONAL ACTIVITIES, 1 CREDIT**

Advanced 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.

**BASEBALL SKILLS & STRATEGIES, 1 CREDIT**

oc	<b>PE-294-01</b>	<b>339946 MW</b>	J. HOPPEL			\$126.00	\$13.00	\$30.00		\$169.00
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Required: Student Petition.

**SOFTBALL SKILLS & STRATEGIES, 1 CREDIT**

oc	<b>PE-294-02</b>	<b>339945 MW</b>	J. BUEL			\$126.00	\$13.00	\$30.00		\$169.00
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Required: Student Petition.

**TRACK SKILLS & STRATEGIES, 1 CREDIT**

oc	<b>PE-294-03</b>	<b>339944 MWF</b>	K. MCHONE			\$126.00	\$13.00	\$30.00		\$169.00
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Required: Student Petition.

**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

ONL LCT	<b>PH-121-40</b>	<b>336751</b>	C. SHARON			\$504.00	\$52.00	\$25.00		\$581.00
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Corequisite: Take the following PH-121L-40.

**PH-121L ASTRONOMY LAB, 0 CREDIT**

Lab course for PH-121L

**Corequisites:** PH-121

ONL	<b>PH-121L-40</b>	<b>336752</b>	C. SHARON			\$0.00	\$0.00	\$0.00		\$0.00
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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 LCT	<b>PH-122-40</b>	<b>336753</b>	C. SHARON			\$504.00	\$52.00	\$20.00		\$576.00
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Corequisite: Take the following PH-122L-40.

**PH-122L GENERAL ASTRONOMY LAB, 0 CREDIT**

Lab course for PH-122

**Corequisites:** PH-122

ONL	<b>PH-122L-40</b>	<b>336756</b>	C. SHARON			\$0.00	\$0.00	\$0.00		\$0.00
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Corequisite: Take the following PH-122-40.

**PH-123 GENERAL ASTRONOMY, 4 CREDITS**

A lab course including star clusters, the properties of our own galaxy, the other galaxies and cosmology.

**Prerequisites:** PH-122

**Corequisites:** PH-123L

ONL	<b>PH-123-40</b>	<b>336757</b>	C. SHARON			\$504.00	\$52.00	\$20.00		\$576.00
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Corequisite: Take the following PH-123L-40.

**PH-123L GENERAL ASTRONOMY LAB, 0 CREDIT**

Lab course for PH-123

**Corequisites:** PH-123

ONL	<b>PH-123L-40</b>	<b>336759</b>	C. SHARON			\$0.00	\$0.00	\$0.00		\$0.00
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Corequisite: Take the following PH-123-40.

**PH-150 PREPARATORY PHYSICS, 3 CREDITS**

This course is intended for students who have not completed high-school physics, but are intending to take either PH-201 or PH-211. Students will develop reasoning skills, and learn problem-solving strategies, measurement units, graph interpretation, and basic physics definitions needed for their General Physics courses.

**Prerequisite or Corequisite:** MTH-112Z or placement in MTH-251

OC LCT	<b>PH-150-01</b>	<b>336760 TTH</b>	TBA			\$378.00	\$39.00	\$20.00		\$437.00
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**PH-203 GENERAL PHYSICS, 5 CREDITS**

A lab course covering thermodynamics, fluids, waves, geometrical optics, wave optics, and modern physics.

**Prerequisites:** PH-202

**Corequisites:** PH-203L and PH-203S

OC	<b>PH-203-01</b>	<b>336763 MW</b>	T. STUFFLEBEAM			\$630.00	\$65.00	\$50.00		\$745.00
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Corequisite: Take 2 of the following PH-203L-01, PH-203L-02, PH-203L-03, PH-203S-01.

**PH-203L GENERAL PHYSICS LAB, 0 CREDIT**

Lab course for PH-203

**Corequisites:** PH-203 and PH-203S

oc	<b>PH-203L-01</b>	<b>336765 T</b>	T. STUFFLEBEAM			\$0.00	\$0.00	\$0.00		\$0.00
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Corequisite: Take the following PH-203S-01, PH-203-01.

oc	<b>PH-203L-02</b>	<b>336767 TH</b>	T. STUFFLEBEAM			\$0.00	\$0.00	\$0.00		\$0.00
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Corequisite: Take the following PH-203S-01, PH-203-01.

**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	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
Section No	Instructor	Tuition	Fee	Crs. Fee	
oc	<b>PH-203L-03</b> 336768 F TBA	\$0.00	\$0.00	\$0.00	\$0.00
11-1:50 PM Corequisite: Take the following PH-203S-01, PH-203-01.					

**PH-203S GENERAL PHYSICS SEMINAR, 0 CREDIT**

Seminar course for PH-203

**Corequisites:** PH-203 and PH-203L

oc	<b>PH-203S-01</b> 336769 T T. STUFFLEBEAM	\$0.00	\$0.00	\$0.00	\$0.00
12-12:50 PM Corequisite: Take 2 of the following PH-203L-01, PH-203L-02, PH-203L-03, PH-203-01.					

**PH-213 GENERAL PHYSICS WITH CALCULUS, 5 CREDITS**

A lab course covering thermodynamics, fluids, waves, geometrical optics, wave optics, and modern physics.

**Prerequisites:** PH-212

**Corequisites:** PH-213L and PH-213S

oc	<b>PH-213-01</b> 336771 MW TBA	\$630.00	\$65.00	\$50.00	\$745.00
11-12:20 PM Corequisite: Take 2 of the following PH-213S-01, PH-213S-02, PH-213S-03, PH-213L-01, PH-213L-02, PH-213L-03.					

oc	<b>PH-213-02</b> 336773 MW TBA	\$630.00	\$65.00	\$50.00	\$745.00
1-2:20 PM Corequisite: Take 2 of the following PH-213S-01, PH-213S-02, PH-213S-03, PH-213L-01, PH-213L-02, PH-213L-03.					

**PH-213L GENERAL PHYSICS WITH CALCULUS LAB, 0 CREDIT**

Lab course for PH-213

**Corequisites:** PH-213 and PH-213S

oc	<b>PH-213L-01</b> 336776 T T. STUFFLEBEAM	\$0.00	\$0.00	\$0.00	\$0.00
9-11:50 AM Corequisite: Take 2 of the following PH-213S-01, PH-213S-02, PH-213S-03, PH-213-01, PH-213-02.					

oc	<b>PH-213L-02</b> 336778 TH T. STUFFLEBEAM	\$0.00	\$0.00	\$0.00	\$0.00
12-2:50 PM Corequisite: Take 2 of the following PH-213S-01, PH-213S-02, PH-213S-03, PH-213-01, PH-213-02.					

oc	<b>PH-213L-03</b> 336779 F TBA	\$0.00	\$0.00	\$0.00	\$0.00
11-1:50 PM Corequisite: Take 2 of the following PH-213S-01, PH-213S-02, PH-213S-03, PH-213-01, PH-213-02.					

**PH-213S GENERAL PHYSICS WITH CALCULUS SEMINAR, 0 CREDIT**

Seminar course for PH-213

**Corequisites:** PH-213 and PH-213L

oc	<b>PH-213S-01</b> 336780 TH TBA	\$0.00	\$0.00	\$0.00	\$0.00
3-3:50 PM Corequisite: Take 2 of the following PH-213-01, PH-213-02, PH-213L-01, PH-213L-02, PH-213L-03.					

oc	<b>PH-213S-02</b> 336782 TH TBA	\$0.00	\$0.00	\$0.00	\$0.00
4-4:50 PM Corequisite: Take 2 of the following PH-213-01, PH-213-02, PH-213L-01, PH-213L-02, PH-213L-03.					

oc	<b>PH-213S-03</b> 336784 F TBA	\$0.00	\$0.00	\$0.00	\$0.00
2-2:50 PM Corequisite: Take 2 of the following PH-213-01, PH-213-02, PH-213L-01, PH-213L-02, PH-213L-03.					

**Political Science**

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

<b>PS-200</b>	<b>INTRODUCTION TO POLITICAL SCIENCE, 4 CREDITS</b>				
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

oc HYB	<b>PS-200-01</b> 336820 T J. HITE	\$504.00	\$52.00	\$0.00	\$556.00
1-2:50 PM					

**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	<b>PS-201-01</b> 339956 J. HITE	\$504.00	\$52.00	\$0.00	\$556.00
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**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. Required: Student Petition.

**Corequisites:** CWE-281

oc	<b>PS-280-01</b> 336822 J. HITE D. LOUGEE	\$756.00	\$78.00	\$45.00	\$879.00V
Required: Student Petition. Corequisite: Take 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	<b>PSY-101-01</b> 336826 TTH J. VELEZ	\$378.00	\$39.00	\$0.00	\$417.00
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ONL LCT	<b>PSY-101-02</b> 336830 M. MALLATT	\$378.00	\$39.00	\$0.00	\$417.00
Online textbook provided first day of class.					

ONL LCT	<b>PSY-101-03</b> 336833 M. MALLATT	\$378.00	\$39.00	\$0.00	\$417.00
Online textbook provided first day of class.					

oc LCT	<b>PSY-101-04</b> 339957 F M. MALLATT	\$378.00	\$39.00	\$0.00	\$417.00
10-12:50 PM Online textbook provided first day of class.					

**PSY-201Z INTRODUCTION TO PSYCHOLOGY I, 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	

Introduction to the science and application of psychology. Emphasis will be placed on psychological concepts, theories, and principles related to: Research Methods, Behavioral Neuroscience, Consciousness, Sensation/Perception, Learning, Memory, Thinking and Intelligence, and related topics.

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

OC LCT	<b>PSY-201Z-01</b>	<b>336836</b>	<b>MW</b>		<b>8-9:50 AM</b>	
	J. KISSLER	\$504.00	\$52.00	\$0.00	\$556.00	
	Online textbook provided first day of class.					
ONL	<b>PSY-201Z-02</b>	<b>336838</b>				
	S. TOBIN	\$504.00	\$52.00	\$0.00	\$556.00	
ONL	<b>PSY-201Z-03</b>	<b>338070</b>				
	S. TOBIN	\$504.00	\$52.00	\$0.00	\$556.00	

**PSY-202Z INTRODUCTION TO PSYCHOLOGY II, 4 CREDITS**

Introduction to the science and application of psychology. Emphasis will be placed on psychological concepts, theories, and principles related to: Personality, Social Psychology, Health and Well-Being, Motivation and Emotion, Disorders, Therapies, Lifespan Development, and related topics.

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

OC LCT	<b>PSY-202Z-01</b>	<b>336839</b>	<b>MW</b>		<b>10-11:50 AM</b>	
	J. KISSLER	\$504.00	\$52.00	\$0.00	\$556.00	
	Online textbook provided first day of class.					
ONL LCT	<b>PSY-202Z-02</b>	<b>336842</b>				
	I. MANCINELLI-FRANCONI	\$504.00	\$52.00	\$0.00	\$556.00	
	Online textbook provided first day of class.					

**PSY-215 INTRODUCTION TO DEVELOPMENTAL PSYCHOLOGY, 4 CREDITS**

Research and theories regarding the development of the individual from conception to death, including physical, social and cognitive changes.

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

**Recommended Prerequisite or Corequisite:** FYE-101

OC LCT	<b>PSY-215-01</b>	<b>336844</b>	<b>TTH</b>		<b>8-9:50 AM</b>	
	J. KISSLER	\$504.00	\$52.00	\$0.00	\$556.00	
	Online textbook provided first day of class.					
OC LCT	<b>PSY-215-02</b>	<b>336847</b>	<b>TTH</b>		<b>10-11:50 AM</b>	
	J. KISSLER	\$504.00	\$52.00	\$0.00	\$556.00	
	Online textbook provided first day of class.					
ONL LCT	<b>PSY-215-03</b>	<b>336848</b>				
	I. MANCINELLI-FRANCONI	\$504.00	\$52.00	\$0.00	\$556.00	
	Online textbook provided first day of class.					
ONL LCT	<b>PSY-215-04</b>	<b>336849</b>				
	T. THOMAS	\$504.00	\$52.00	\$0.00	\$556.00	
	Online textbook provided first day of class.					
ONL	<b>PSY-215-05</b>	<b>339958</b>				
	J. BENNETT	\$504.00	\$52.00	\$0.00	\$556.00	
	Meets: 5/5-6/6.					

**PSY-219 INTRODUCTION TO PSYCHOLOGICAL DISORDERS, 4 CREDITS**

Introduction to clinical psychology, including common mental health concerns and approaches to treatment.

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

OC HYB	<b>PSY-219-01</b>	<b>336851</b>	<b>W</b>		<b>1-2:50 PM</b>	
	S. KISER	\$504.00	\$52.00	\$0.00	\$556.00	
ONL	<b>PSY-219-02</b>	<b>336855</b>				
	S. KISER	\$504.00	\$52.00	\$0.00	\$556.00	

**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	Total
	Instructor		Tuition	Fee	Crs. Fee	

ONL	<b>PSY-219-03</b>	<b>336856</b>				
	K. KRASKA	\$504.00	\$52.00	\$100.79	\$656.79	
	Online textbook included in section fees.					

**PSY-280 PSYCHOLOGY/CWE, 2-6 CREDITS (VAR)**

Cooperative work experience. This course allows students to engage in real-world learning and apply their academic knowledge in the field of psychology. Required: Student Petition.

**Corequisites:** CWE-281

OC	<b>PSY-280-01</b>	<b>336860</b>				
	J. KISSLER	\$756.00	\$78.00	\$45.00	\$879.00V	
	Required: Student Petition. Corequisite: Take the following CWE-281-06.					

**Religion**

**R-101 JUDAISM AND FOUNDATIONS OF RELIGION, 4 CREDITS**

An introduction to religious topics, meaning of sacred, the nature of myth and story, ideas of God/god, ancient religions, and Judaism.

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

ONL	<b>R-101-01</b>	<b>338071</b>				
	J. SHELTON	\$504.00	\$52.00	\$0.00	\$556.00	

**R-210 WORLD RELIGIONS, 4 CREDITS**

Examines religions and philosophies from around the world through film, text, and/or online presentations. Introduces Hinduism, Buddhism, Chinese/Japanese religions, Christianity, Judaism, Islam, and many other religious systems.

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

ONL	<b>R-210-01</b>	<b>336869</b>				
	J. SHELTON	\$504.00	\$52.00	\$0.00	\$556.00	

**R-212 HISTORY OF THE NEW TESTAMENT, 4 CREDITS**

An introduction to the New Testament that includes the first century social, political, and religious influences on the New Testament texts, the life of Jesus, the Pauline letters, and other early Christian writings.

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

HAR	<b>R-212-15</b>	<b>336872</b>	<b>MW</b>		<b>1-2:50 PM</b>	
	J. SHELTON	\$504.00	\$52.00	\$0.00	\$556.00	

**R-280 RELIGION/CWE, 2-6 CREDITS (VAR)**

Cooperative work experience. Provides students with on-the-job work experience in the field of religion. Required: Student Petition.

**Corequisites:** CWE-281

OC	<b>R-280-01</b>	<b>336874</b>				
	D. LOUGEE	\$756.00	\$78.00	\$45.00	\$879.00V	
	J. SHELTON	Required: Student Petition. Corequisite: Take 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-209 RENEWABLE ENERGY I: ENERGY EFFICIENCY, 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	

This course concentrates on the conservation of scarce energy resources in residential, commercial and industrial applications. The course will examine the common sources of energy loss in building systems and homes, industrial processes and transportation. Students will be introduced to residential energy audits and mitigation. Topics will also include regenerative transportation systems, LEED certification, test instruments, insulation values, heat exchangers and financial payback period. Includes hands-on lab exercises.

**Recommended Prerequisites:** RET-200

oc	<b>RET-209-01</b>	<b>340206 MW</b>			<b>9-11:50 AM</b>	
	S. PAVEY	\$378.00	\$39.00	\$131.25	\$548.25	

**RET-211 RENEWABLE ENERGY II: SYSTEM FUNDAMENTALS, 3 CREDITS**

This course in renewable systems will provide in-depth understanding of the technology, economics and policies relevant to each type of energy source. Analysis techniques to evaluate renewable energy applications from a systems design and selection perspective will be presented. Topics include physical operating principles, theoretical vs. actual system output, energy storage, efficiency and cost analysis. Includes hands-on lab exercises.

**Prerequisites:** RET-209

oc	<b>RET-211-01</b>	<b>340226 TTH</b>			<b>9-11:50 AM</b>	
	S. PAVEY	\$378.00	\$39.00	\$131.25	\$548.25	

**RET-217 RENEWABLE ENERGY CAPSTONE PROJECT, 3 CREDITS**

This final class in the Renewable Energy series will concentrate on a capstone project. Students will evaluate a proposal for an alternative energy solution and then design an installation to meet the needs of the proposal. Students will be expected to perform a site survey, quantify energy requirements, select appropriate technologies, calculate the payback period and finally fabricate an actual or conceptual energy solution where appropriate.

**Prerequisites:** RET-215

oc	<b>RET-217-01</b>	<b>336785 MW</b>			<b>1-4:00 PM</b>	
	S. PAVEY	\$378.00	\$39.00	\$131.25	\$548.25	

**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. Required: Student Petition.

**Corequisites:** CWE-281

ONL	<b>RET-280-01</b>	<b>336786</b>				
	S. PAVEY	\$1,512.00	\$156.00	\$570.00	\$2,238.00	0

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

**Small Business Development Center**

**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	

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-010-01SP</b>	<b>340039 TH</b>			<b>5:30 -8:20 PM</b>	
	TBA	\$0.00	\$0.00	\$0.00	\$0.00	

**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-011-01SP</b>	<b>340040 T</b>			<b>6-7:50 PM</b>	
	TBA	\$0.00	\$0.00	\$0.00	\$0.00	

**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-020-05SP</b>	<b>340042 T</b>			<b>6:30 -9:20 PM</b>	
	J. SELBY	\$0.00	\$0.00	\$0.00	\$0.00	
REM	<b>SBM-020-06SP</b>	<b>340044 T</b>			<b>6:30 -9:20 PM</b>	
	J. SELBY	\$0.00	\$0.00	\$0.00	\$0.00	
REM	<b>SBM-020-07SP</b>	<b>340046 T</b>			<b>6:30 -9:20 PM</b>	
	J. SELBY	\$0.00	\$0.00	\$0.00	\$0.00	
REM	<b>SBM-020-08SP</b>	<b>340047 T</b>			<b>6:30 -9:20 PM</b>	
	J. SELBY	\$0.00	\$0.00	\$0.00	\$0.00	

**SBM-021C 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. The SBM class will address the challenges of creating an attractive business concept, building lasting customer relations, maintaining profitable operations, and developing strong organizational structure.

HAR HYB	<b>SBM-021C-01SP</b>	<b>340048 TH</b>			<b>1-3:50 PM</b>	
	R. CAMPBELL	\$0.00	\$0.00	\$0.00	\$0.00	
REM	<b>SBM-021C-03SP</b>	<b>340055 T</b>			<b>6:30 -7:50 PM</b>	
	D. TOURNEY	\$0.00	\$0.00	\$0.00	\$0.00	

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

**SBM-024C 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, 3 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.

HAR HYB	<b>SBM-024C-01SP</b>	<b>340049 TH</b>		<b>1-3:50 PM</b>	
	D. TOURNEY	\$0.00	\$0.00	\$0.00	\$0.00

**SBM-029C SMALL BUSINESS MANAGEMENT II FOR CONSTRUCTION CONTRACTORS, 0 CREDIT**  
 Provides information on continuing to grow a successful construction business. Teaches students about payroll and benefits and registering for government contracts in the construction industry. Discusses long term business planning.

REM	<b>SBM-029C-01SP</b>	<b>340051 W</b>		<b>6-7:20 PM</b>	
	D. TOURNEY	\$0.00	\$0.00	\$0.00	\$0.00

**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-0003-01SP</b>	<b>340027 TH</b>		<b>6:30 -9:20 PM</b>	
	J. SELBY	\$0.00	\$0.00	\$0.00	\$0.00
REM	<b>XSBM-0003-02SP</b>	<b>340028 TH</b>		<b>6:30 -9:20 PM</b>	
	J. SELBY	\$0.00	\$0.00	\$0.00	\$0.00
REM	<b>XSBM-0003-03SP</b>	<b>340029 TH</b>		<b>6:30 -9:20 PM</b>	
	J. SELBY	\$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-0011-21SP</b>	<b>340030 W</b>		<b>6-8:50 PM</b>	
	C. WEESNER	\$0.00	\$0.00	\$0.00	\$0.00

**Social Science**

**SSC-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 LCT	<b>SSC-235-01</b>	<b>336910 TTH</b>		<b>1-2:50 PM</b>	
	J. FLOWERS	\$504.00	\$52.00	\$0.00	\$556.00

No textbook required.

**Sociology**

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

**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>	<b>336877 W</b>		<b>10-11:50 AM</b>	
	E. PFEIFER	\$504.00	\$52.00	\$0.00	\$556.00
OC HYB	<b>SOC-204-02</b>	<b>336880 TH</b>		<b>1-2:50 PM</b>	
	E. PFEIFER	\$504.00	\$52.00	\$0.00	\$556.00

**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>	<b>336881 TH</b>		<b>10-11:50 AM</b>	
	E. PFEIFER	\$504.00	\$52.00	\$0.00	\$556.00
OC HYB	<b>SOC-205-02</b>	<b>336883 W</b>		<b>1-2:50 PM</b>	
	E. PFEIFER	\$504.00	\$52.00	\$0.00	\$556.00

**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

ONL LCT	<b>SOC-206-01</b>	<b>336884</b>			
	J. LOVELESS	\$504.00	\$52.00	\$0.00	\$556.00

**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

ONL	<b>SOC-210-01</b>	<b>336887</b>			
	J. LOVELESS	\$504.00	\$52.00	\$0.00	\$556.00

**SOC-225 SOCIAL PROBLEMS, 4 CREDITS**  
 Applies the sociological framework to the study of social problems, their identification, analysis of causes and possible solutions. Problems explored may include mental disorders, drug and alcohol addiction, crime and delinquency, group discrimination, inequality, poverty, alienation, domestic and international violence, environment, and energy.  
**Recommended Prerequisites:** WRD-098 or placement in WR-121Z

ONL	<b>SOC-225-01</b>	<b>336888</b>			
	J. LOVELESS	\$504.00	\$52.00	\$0.00	\$556.00

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

**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. Required: Student Petition.

**Corequisites:** CWE-281

oc	<b>SOC-280-01</b>	<b>336894</b>				
	E. PFEIFER	\$756.00	\$78.00	\$45.00	\$879.00V	
	Required: Student Petition. Corequisite: Take 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 LCT	<b>STAT-243Z-01</b>	<b>336914</b>	<b>TTH</b>		<b>10-11:50 AM</b>	
	M. PRICE	\$504.00	\$52.00	\$20.00	\$576.00	
OC HYB LCT	<b>STAT-243Z-02</b>	<b>336918</b>	<b>T</b>		<b>1-2:50 PM</b>	
	K. AMREIN	\$504.00	\$52.00	\$20.00	\$576.00	
OC LCT	<b>STAT-243Z-03</b>	<b>336920</b>	<b>MW</b>		<b>3-4:50 PM</b>	
	M. PRICE	\$504.00	\$52.00	\$20.00	\$576.00	
OC LCT	<b>STAT-243Z-04</b>	<b>338055</b>	<b>TTH</b>		<b>8-9:50 AM</b>	
	T. BIEBER	\$504.00	\$52.00	\$20.00	\$576.00	
ONL LCT	<b>STAT-243Z-10</b>	<b>336922</b>				
	K. AMREIN	\$504.00	\$52.00	\$20.00	\$576.00	

**Theatre Arts**

**TA-113 FUNDAMENTALS OF TECHNICAL THEATRE, 4 CREDITS**

Third class in a three-part series. Advanced study and practice in 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 a journal/study (12 total hours) of outside class activity and observations of Technical Theatre applications.

OC LCT	<b>TA-113-01</b>	<b>336046</b>	<b>TTH</b>		<b>1-3:50 PM</b>	
	C. WHITTEN	\$504.00	\$52.00	\$35.00	\$591.00	

**TA-123 COSTUMING III, 3 CREDITS**

Third 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.

**Recommended Prerequisites:** TA-121 or TA-122

OC LCT	<b>TA-123-01</b>	<b>336052</b>	<b>MW</b>		<b>10-12:50 PM</b>	
	A. HEMLOCK	\$378.00	\$39.00	\$0.00	\$417.00	

**TA-143 ACTING III, 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

**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			

Further studies the methods, techniques, and theories of acting as an art form. Workshop, discussion, and performance of exercises and monologues/scenes from dramatic literature with written assignments to include response and analysis papers. Advanced work on vocal and physical skills with special focus on character and creation of material. Third in a series.

**Recommended Prerequisites:** WRD-098, and TA-141 or TA-142

OC LCT	<b>TA-143-01</b>	<b>336055</b>	<b>MW</b>		<b>10-11:50 AM</b>	
	A. MOON	\$504.00	\$52.00	\$35.00	\$591.00	

**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. 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</b>	<b>336059</b>	<b>MWF</b>		<b>3-5:50 PM</b>	
	A. MOON	\$378.00	\$39.00	\$25.00	\$442.00V	
	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. May be repeated for up to 6 credits.

OC LCT	<b>TA-195-01</b>	<b>336068</b>	<b>MWF</b>		<b>12-2:50 PM</b>	
	A. MOON	\$378.00	\$39.00	\$35.00	\$452.00V	
	C. WHITTEN Meets: Improv 12-12:50PM, One-Acts 1-1:50PM, Stand-Up 2-2:50pm.					

**TA-213 TECHNICAL THEATRE STUDY, 4 CREDITS**

Third class in a three-part series. Comprehensive study and practice in presentational graphics, scene design, with specific focus in lighting design and chromatics. The full creative process of staging a production with be explored through aesthetic research and design projects. Includes hands-on participation in CCC's main stage productions. Students must participate in the focus, performance and strike (10 total hours) of a production. Students are required to maintain a journal/study (12 total hours) of outside class activity identifying and observing Technical Theatre applications.

**Prerequisites:** TA-111, TA-112, and TA-113

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

OC LCT	<b>TA-213-01</b>	<b>336075</b>	<b>TTH</b>		<b>1-3:50 PM</b>	
	C. WHITTEN	\$504.00	\$52.00	\$35.00	\$591.00	

**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. May be repeated for up to 6 credits. Required: Student Petition.

**Required:** Successful audition/interview

**Recommended Prerequisites:** TA-153

OC LCT	<b>TA-253-01</b>	<b>336079</b>	<b>MWF</b>		<b>3-5:50 PM</b>	
	A. MOON	\$378.00	\$39.00	\$25.00	\$442.00V	
	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		

**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. Required: Student Petition.

**Corequisites:** CWE-281

ONL LCT	<b>TA-280-01</b>	<b>336082</b>				
	C. WHITTEN	\$756.00	\$78.00	\$45.00	\$879.00V	
	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. May be repeated for up to 6 credits.

OC LCT	<b>TA-295-01</b>	<b>336088</b>	<b>MWF</b>	<b>12-2:50 PM</b>		
	A. MOON	\$378.00	\$39.00	\$35.00	\$452.00V	
	C. WHITTEN					
	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>337974</b>	<b>MWF</b>	<b>3-5:50 PM</b>		
	A. MOON	\$0.00	\$0.00	\$35.00	\$35.00	

**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>337975</b>	<b>MWF</b>	<b>3-5:50 PM</b>		
	A. MOON	\$0.00	\$0.00	\$35.00	\$35.00	

## Water & Environmental Technology

**WET-030 WASTEWATER OPERATIONS III, 3 CREDITS**

For professional upgrade only. Does meet the requirements for the certificate or degree. Design, operation, process control and maintenance of treatment facilities. Current treatment processes discussed in detail with particular attention given to biological sludge handling process. No lab requirement for this course.

**Prerequisites:** WET-020

oc	<b>WET-030-01</b>	<b>336792</b>	<b>M</b>	<b>4-6:50 PM</b>		
	M. LAFORCE	\$378.00	\$39.00	\$15.00	\$432.00	

**WET-031 WATER TREATMENT, 3 CREDITS**

For professional upgrade only. Does not meet the requirements for the certificate or degree. Design, operation and process control of water treatment plants. Includes water chemistry, related math, coagulation, sedimentation, filtration and disinfection procedures. Review for Oregon Operator certification exams. No lab requirement for this course. Lab includes field trips to local water treatment facilities.

**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	<b>WET-031-01</b>	<b>336794</b>	<b>T</b>	<b>4-6:50 PM</b>		
	J. NURMI	\$378.00	\$39.00	\$15.00	\$432.00	

**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>336797</b>	<b>TWTFH</b>	<b>8-4:50 PM</b>		
	J. NURMI	\$378.00	\$39.00	\$0.00	\$417.00	
	Meets: 6/10-6/13.					

**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>336798</b>	<b>MTWTFH</b>	<b>8-4:50 PM</b>		
	M. LAFORCE	\$504.00	\$52.00	\$400.00	\$956.00	
	Meets: 3/31-4/4.					

oc	<b>WET-109-02</b>	<b>336801</b>	<b>MTWTFH</b>	<b>8-4:50 PM</b>		
	M. LAFORCE	\$504.00	\$52.00	\$400.00	\$956.00	
	Meets: 6/9-6/13.					

**WET-130 WASTEWATER OPERATIONS III, 4 CREDITS**

Design, operation, process control and maintenance of treatment facilities. Current treatment processes discussed in detail with particular attention given to biological sludge treatment, and handling processes. Lab includes field trips to local wastewater facilities.

**Prerequisites:** WET-120

**Corequisites:** WET-130L

oc	<b>WET-130-01</b>	<b>336803</b>	<b>M</b>	<b>4-6:50 PM</b>		
	M. LAFORCE	\$504.00	\$52.00	\$40.00	\$596.00	

**WET-130L WASTEWATER OPERATIONS III LAB, 0 CREDIT**

The course is devoted to comprehension of the wastewater treatment process via weekly exploration of a wastewater treatment plant. We will tour a treatment plant and then go over the treatment process in lecture. We will emphasis emerging wastewater technologies, (nitrification/denitrification), sludge and bio-solids management, volatile solids reduction through the digestion (aerobic and anaerobic) processes, sludge/solids processing, solids handling, and ultimate waste solids disposal. Fundamental principles of emerging wastewater treatment process, solids handling, including disinfection and dechlorination of wastewater will be emphasized.

**Prerequisites:** WET-110 and WET-120

**Corequisites:** WET-130

oc	<b>WET-130L-01</b>	<b>336804</b>	<b>M</b>	<b>1-3:50 PM</b>		
	M. LAFORCE	\$0.00	\$0.00	\$0.00	\$0.00	

**WET-131 WATER TREATMENT, 4 CREDITS**

Design, operation and process control of water treatment plants. Includes water chemistry, related math, coagulation, flocculation, sedimentation, filtration and disinfection procedures. Review for Oregon Operator grade 1 certification exams. Lab includes field trips to local water treatment facilities.

**Prerequisites:** WET-121

**Corequisites:** WET-131L

oc	<b>WET-131-01</b>	<b>336805</b>	<b>T</b>	<b>4-6:50 PM</b>		
	J. NURMI	\$504.00	\$52.00	\$40.00	\$596.00	

**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	

**WET-131L WATER TREATMENT LAB, 0 CREDIT**  
 Lab Course for WET-131. Must be taken concurrently with WET-131.  
**Prerequisites:** WET-121  
**Corequisites:** WET-131

oc	<b>WET-131L-01</b>	<b>336807 T</b>			<b>1-3:50 PM</b>	
	J. NURMI		\$0.00	\$0.00	\$0.00	\$0.00

**WET-132 COLLECTION & DISTRIBUTION LAB, 1 CREDIT**  
 Field exposure to water distribution systems and wastewater collection systems. Weekly field visits include inspection of cross-connection inspection, distribution valving, reservoirs, water metering/repair, pumping station operations, smoke testing, and CCTV.

oc	<b>WET-132-01</b>	<b>336808 M</b>			<b>10-12:50 PM</b>	
	M. LAFORCE		\$126.00	\$13.00	\$35.00	\$174.00

**WET-134 ENVIRONMENTAL CHEMISTRY II, 3 CREDITS**  
 Water quality testing, monitoring and reporting. The course includes the theory and application of common water quality tests for surface water, groundwater, and storm water monitoring systems. The course also covers all water quality tests for ensuring correct water treatment processes.  
**Prerequisites:** WET-123

oc	<b>WET-134-01</b>	<b>336810 W</b>			<b>9-1:50 PM</b>	
	J. NURMI		\$378.00	\$39.00	\$50.00	\$467.00

**WET-180 WATER & ENVIRONMENTAL PROJECTS I, 5 CREDITS**  
 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.  
**Corequisites:** CWE-281

ONL	<b>WET-180-01</b>	<b>336811</b>				
	M. LAFORCE		\$630.00	\$65.00	\$45.00	\$740.00

Corequisite: Take the following CWE-281-02.

**XWET-C001 1-DAY CROSS CONNECTION SPECIALIST UPDATE, 0.60 CEUS**  
 Update on code information or any changes in the program.

oc	<b>XWET-C001-31</b>	<b>336916 F</b>			<b>8-3:50 PM</b>	
	J. NURMI		\$0.00	\$0.00	\$0.00	\$0.00

Registration for this section is on our Eventbrite Page. Meets: 5/9. Fee: \$100 Register at [ccc-wet.eventbrite.com/](http://ccc-wet.eventbrite.com/) Contact Amber Steele at [amber.steele@clackamas.edu](mailto:amber.steele@clackamas.edu) with questions.

**XWET-C002 1-DAY TESTER RENEWAL, 0.60 CEUS**  
 Update on OARs and hands on testing to recertify student for backflow assembly certification through the State of Oregon.

oc	<b>XWET-C002-11</b>	<b>336917 F</b>			<b>8-4:50 PM</b>	
	M. LAFORCE		\$0.00	\$0.00	\$0.00	\$0.00

Meets: 5/2 in person. Fee: \$100. Register at [ccc-wet.eventbrite.com/](http://ccc-wet.eventbrite.com/) Contact Amber Steele at [amber.steele@clackamas.edu](mailto:amber.steele@clackamas.edu) with questions.

**XWET-C003 2-DAY TESTER RETRAIN/RENEWAL, 1.20 CEUS**

**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	

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.

oc	<b>XWET-C003-21</b>	<b>336919 THF</b>			<b>8-4:50 PM</b>	
	M. LAFORCE		\$0.00	\$0.00	\$0.00	\$0.00

Meets: 5/22-5/23 in person Fee: \$200. Register at [ccc-wet.eventbrite.com/](http://ccc-wet.eventbrite.com/) Contact Amber Steele at [amber.steele@clackamas.edu](mailto:amber.steele@clackamas.edu) with questions.

**XWET-C004 4-DAY CROSS CONNECTION SPECIALIST COURSE, 3.20 CEUS**  
 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.

oc	<b>XWET-C004-41</b>	<b>336921 TWTHF</b>			<b>8-4:50 PM</b>	
	J. NURMI		\$0.00	\$0.00	\$0.00	\$0.00

Meets: 6/10-6/13 Fee: \$400. Register at [ccc-wet.eventbrite.com/](http://ccc-wet.eventbrite.com/) Contact Amber Steele at [amber.steele@clackamas.edu](mailto:amber.steele@clackamas.edu) with questions.

**XWET-C005 5-DAY BACKFLOW TESTER COURSE, 4.00 CEUS**  
 Presentation of backflow prevention assemblies used for water/wastewater system cross connection control. Class 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. Students will be able to apply to Oregon Health Authority for Certification by that agency.

oc	<b>XWET-C005-51</b>	<b>336924 MTWTHF</b>			<b>8-4:50 PM</b>	
	M. LAFORCE		\$0.00	\$0.00	\$0.00	\$0.00

Meets: 3/31-4/4 in person Fee: \$500. Register at [ccc-wet.eventbrite.com/](http://ccc-wet.eventbrite.com/) Contact Amber Steele at [amber.steele@clackamas.edu](mailto:amber.steele@clackamas.edu) with questions.

oc	<b>XWET-C005-52</b>	<b>336927 MTWTHF</b>			<b>8-4:50 PM</b>	
	M. LAFORCE		\$0.00	\$0.00	\$0.00	\$0.00

Meets 6/9-6/13 Fee: \$500 Registration for this course is on our Eventbrite Page. Register at [ccc-wet.eventbrite.com/](http://ccc-wet.eventbrite.com/) Contact Amber Steele at [amber.steele@clackamas.edu](mailto:amber.steele@clackamas.edu) with questions.

## 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**

**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>WLD-100-01 336813 TH</b>				<b>2-4:50 PM</b>	
D. PODKOWA	\$378.00	\$39.00	\$219.00			\$636.00
oc	<b>WLD-100-02 336815 T</b>				<b>6-8:50 PM</b>	
M. TIZO	\$378.00	\$39.00	\$219.00			\$636.00

**WLD-102 INTRODUCTION TO WELDING, 2 CREDITS**

Designed for the beginner and experimental welder. Includes: oxy-acetylene cutting and welding, SMAW (Shielded Metal Arc Welding), GMAW & FCAW (Gas Metal Arc Welding & Flux Core Arc Welding) and GTAW (Gas Tungsten Arc Welding) and plasma arc cutting.

oc	<b>WLD-102-01 336816 F</b>				<b>6-9:50 PM</b>	
A. TOWN	\$252.00	\$26.00	\$146.00			\$424.00
oc	<b>WLD-102-02 336819 S</b>				<b>9-12:50 PM</b>	
K. DRURY	\$252.00	\$26.00	\$146.00			\$424.00
oc	<b>WLD-102-03 336821 S</b>				<b>2-5:50 PM</b>	
K. DRURY	\$252.00	\$26.00	\$146.00			\$424.00

**WLD-102ES INTRODUCCIÓN A LA SOLDADURA, 2 CREDITS**

Diseñado para soldaderos principiantes y experimental. Incluye corte y soldadura oxiacetileno, soldadura por arco de metal blindado (SMAW), la soldadura de arco de metal y gas (GMAW) y Soldadura por Arco con Nucleo de Fundente (FCAW) y soldadura por arco de gas tungsteno (GTAW) y corte por plasma.

oc ESPAÑOL	<b>WLD-102ES-01 336823 S</b>				<b>6-9:50 PM</b>	
F. PAXTOR	\$252.00	\$26.00	\$146.00			\$424.00

**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 339921 F</b>				<b>6-9:50 PM</b>	
M. TIZO	\$252.00	\$26.00	\$146.00			\$424.00

**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 LCT	<b>WLD-110-01 336824 MW</b>				<b>8-11:50 AM</b>	
D. PODKOWA	\$504.00	\$52.00	\$432.00			\$988.00
	Required: Student Petition.					
OC LCT	<b>WLD-110-02 336827 MW</b>				<b>1-4:50 PM</b>	
D. PODKOWA	\$504.00	\$52.00	\$432.00			\$988.00
	Required: Student Petition.					
OC LCT	<b>WLD-110-03 336828 MW</b>				<b>6-9:50 PM</b>	
M. TIZO	\$504.00	\$52.00	\$432.00			\$988.00
	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>WLD-110-04 336829 TTH</b>				<b>8-11:50 AM</b>	
D. BATES	\$504.00	\$52.00	\$432.00			\$988.00
	Required: Student Petition.					
OC LCT	<b>WLD-110-05 336832 TTH</b>				<b>6-9:50 PM</b>	
B. MULLIGAN	\$504.00	\$52.00	\$432.00			\$988.00
	Required: Student Petition.					
OC LCT	<b>WLD-110-06 336835 TTH</b>				<b>1-4:50 PM</b>	
B. MULLIGAN	\$504.00	\$52.00	\$432.00			\$988.00
	Required: Student Petition.					

**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 336837 MTWTH</b>				<b>8-11:50 AM</b>	
R. THOMAS	\$1,008.00	\$104.00	\$584.00			\$1,696.00

**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 336840 MW</b>				<b>8-11:50 AM</b>	
R. THOMAS	\$504.00	\$52.00	\$292.00			\$848.00

**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 336841 TTH</b>				<b>8-11:50 AM</b>	
R. THOMAS	\$504.00	\$52.00	\$292.00			\$848.00

**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-113-02 339918 TWTHF</b>				<b>12:01 -1:50 AM</b>	
K. DRURY	\$1,008.00	\$104.00	\$584.00		<b>10-11:59 PM</b>	\$1,696.00
						0

**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-06 339919 TTH</b>				<b>12:01 -1:50 AM</b>	
K. DRURY	\$504.00	\$52.00	\$292.00		<b>10-11:59 PM</b>	\$848.00

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

**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-06</b>	<b>339920</b>	<b>TTH</b>		<b>10-11:59 PM</b>	
			<b>WF</b>		<b>12:01 -1:50 AM</b>	
	K. DRURY	\$504.00	\$52.00	\$292.00	\$848.00	

**WLD-115 GAS TUNGSTEN ARC WELDING (GTAW), 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 Tungsten Arc Welding process. Plasma arc cutting will be covered. Welding codes, standards, and specifications will be reviewed.

oc	<b>WLD-115-01</b>	<b>336843</b>	<b>MTWTH</b>		<b>6-9:50 PM</b>	
	J. PHELPS	\$1,008.00	\$104.00	\$584.00	\$1,696.00	

**WLD-115A GAS TUNGSTEN ARC WELDING (GTAW), 4 CREDITS**

The first half of WLD-115 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 Tungsten Arc Welding (GTAW) process. Plasma arc cutting will be covered.

oc	<b>WLD-115A-01</b>	<b>336845</b>	<b>MW</b>		<b>6-9:50 PM</b>	
	J. PHELPS	\$504.00	\$52.00	\$292.00	\$848.00	
oc	<b>WLD-115A-02</b>	<b>336846</b>	<b>MTWTH</b>		<b>7:30 -9:20 AM</b>	
	R. ABBOTT	\$504.00	\$52.00	\$292.00	\$848.00	
oc	<b>WLD-115A-03</b>	<b>336852</b>	<b>MTWTH</b>		<b>1:15 -3:05 PM</b>	
	R. ABBOTT	\$504.00	\$52.00	\$292.00	\$848.00	
oc	<b>WLD-115A-04</b>	<b>336854</b>	<b>MTWTH</b>		<b>3:30 -5:20 PM</b>	
	R. ABBOTT	\$504.00	\$52.00	\$292.00	\$848.00	

**WLD-115B GAS TUNGSTEN ARC WELDING (GTAW), 4 CREDITS**

The second half of WLD-115 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 Tungsten Arc Welding process. Welding codes, standards, and specifications will be reviewed.

**Prerequisites:** WLD-115A

oc	<b>WLD-115B-01</b>	<b>336859</b>	<b>TTH</b>		<b>6-9:50 PM</b>	
	J. PHELPS	\$504.00	\$52.00	\$292.00	\$848.00	
oc	<b>WLD-115B-02</b>	<b>336861</b>	<b>MTWTH</b>		<b>7:30 -9:20 AM</b>	
	R. ABBOTT	\$504.00	\$52.00	\$292.00	\$848.00	
oc	<b>WLD-115B-03</b>	<b>336863</b>	<b>MTWTH</b>		<b>1:15 -3:05 PM</b>	
	R. ABBOTT	\$504.00	\$52.00	\$292.00	\$848.00	
oc	<b>WLD-115B-04</b>	<b>336865</b>	<b>MTWTH</b>		<b>3:30 -5:20 PM</b>	
	R. ABBOTT	\$504.00	\$52.00	\$292.00	\$848.00	

**WLD-150 WELDING PROCESSES, 4 CREDITS**

Covers oxy-fuel welding, brazing, cutting, SMAW (Shielded Metal Arc Welding), GMAW & FCAW (Gas Metal Arc Welding & Flux Core Arc Welding) and GTAW (Gas Tungsten Arc Welding) and plasma arc cutting and plasma cutting. This course includes safety, electrical fundamentals, routine maintenance, minor repairs, and welding terms and definitions.

**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)  
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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>WLD-150-01</b>	<b>336867</b>	<b>MW</b>		<b>6-9:50 PM</b>	
	M. TIZO	\$504.00	\$52.00	\$292.00	\$848.00	
oc	<b>WLD-150-02</b>	<b>336870</b>	<b>MW</b>		<b>8-11:50 AM</b>	
	D. PODKOWA	\$504.00	\$52.00	\$292.00	\$848.00	

**WLD-200 WELDER'S PRINT READING II, 3 CREDITS**

Provides instruction in reading and interpretation of prints and symbols common in welding industry. Participants will learn interpretation and application of blueprint views. Includes basic layout techniques and math review. American Welding Society symbols, International Standards Organization symbols, pipe welding symbols, and inspection symbols are covered.

**Prerequisites:** WLD-100

oc	<b>WLD-200-01</b>	<b>336871</b>	<b>T</b>		<b>2-4:50 PM</b>	
	D. PODKOWA	\$378.00	\$39.00	\$219.00	\$636.00	

**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</b>	<b>336873</b>	<b>MW</b>		<b>1-4:50 PM</b>	
	D. PODKOWA	\$504.00	\$52.00	\$292.00	\$848.00	

Required: Student Petition.

**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</b>	<b>336875</b>	<b>TTH</b>		<b>8-11:50 AM</b>	
	D. BATES	\$504.00	\$52.00	\$292.00	\$848.00	

**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</b>	<b>336876</b>	<b>MW</b>		<b>1-4:50 PM</b>	
	D. PODKOWA	\$504.00	\$52.00	\$292.00	\$848.00	

Required: Student Petition.

**WLD-215 ADVANCED GAS TUNGSTEN 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 Tungsten Arc Welding (GTAW) process. Advanced welding theory and procedures will also be included.

**Prerequisites:** WLD-115; or WLD-115A and WLD-115B

oc	<b>WLD-215-01</b>	<b>336878</b>	<b>TTH</b>		<b>6-9:50 PM</b>	
	B. MULLIGAN	\$504.00	\$52.00	\$292.00	\$848.00	

**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	
<b>WLD-250</b>	<b>WELDING FABRICATION I BEGINNING PROJECT, 4 CREDITS</b>						<b>OC LCT</b>	<b>WLD-261-08 336896 TH</b>	J. PHELPS	\$252.00	\$26.00	\$146.00	\$424.00V
	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.												
	<b>Prerequisites:</b> WLD-111, WLD-113, or WLD-115												
<b>oc</b>	<b>WLD-250-01 336879 TTH</b>	B. MULLIGAN	\$504.00	\$52.00	\$292.00	\$848.00							
<b>WLD-251</b>	<b>WELDING FABRICATION II INTERMEDIATE PROJECT, 4 CREDITS</b>						<b>OC LCT</b>	<b>WLD-261-10 336897 S</b>	K. DRURY	\$252.00	\$26.00	\$146.00	\$424.00V
	This course consists of lecture and lab. Students will use the skills learned in WLD-250, 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.												
	<b>Prerequisites:</b> WLD-250												
<b>oc</b>	<b>WLD-251-01 336882 TTH</b>	B. MULLIGAN	\$504.00	\$52.00	\$292.00	\$848.00							
<b>WLD-252</b>	<b>WELDING FABRICATION III ADVANCED PROJECT, 4 CREDITS</b>						<b>OC</b>	<b>WLD-261-11 336898 S</b>	K. DRURY	\$252.00	\$26.00	\$146.00	\$424.00V
	This course consists of lecture and lab. Students will use the skills learned in WLD-250 and WLD-251, 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 responsible for all aspects of managing the project to successful completion.												
	<b>Prerequisites:</b> WLD-251												
<b>oc</b>	<b>WLD-252-01 336885 TTH</b>	B. MULLIGAN	\$504.00	\$52.00	\$292.00	\$848.00							
<b>WLD-261</b>	<b>WELDING SPECIAL PROJECTS, 1-2 CREDITS (VAR)</b>						<b>OC LCT</b>	<b>WLD-261-12 336899 T</b>	R. THOMAS	\$252.00	\$26.00	\$146.00	\$424.00V
	Allows students to improve their welding skills while working on instructor-approved projects. May be repeated for up to 12 credits.												
<b>OC LCT</b>	<b>WLD-261-01 336886 M</b>	R. THOMAS	\$252.00	\$26.00	\$146.00	\$424.00V							
<b>OC LCT</b>	<b>WLD-261-02 336889 M</b>	D. PODKOWA	\$252.00	\$26.00	\$146.00	\$424.00V							
<b>OC LCT</b>	<b>WLD-261-03 336890 M</b>	J. PHELPS	\$252.00	\$26.00	\$146.00	\$424.00V							
<b>OC LCT</b>	<b>WLD-261-04 336891 T</b>	J. PHELPS	\$252.00	\$26.00	\$146.00	\$424.00V							
<b>OC LCT</b>	<b>WLD-261-05 336892 W</b>	R. THOMAS	\$252.00	\$26.00	\$146.00	\$424.00V							
<b>OC LCT</b>	<b>WLD-261-06 336893 W</b>	D. PODKOWA	\$252.00	\$26.00	\$146.00	\$424.00V							
<b>OC LCT</b>	<b>WLD-261-07 336895 W</b>	J. PHELPS	\$252.00	\$26.00	\$146.00	\$424.00V							
<b>OC LCT</b>	<b>WLD-261-08 336896 TH</b>	J. PHELPS	\$252.00	\$26.00	\$146.00	\$424.00V							
<b>OC LCT</b>	<b>WLD-261-09 336897 S</b>	K. DRURY	\$252.00	\$26.00	\$146.00	\$424.00V							
<b>OC</b>	<b>WLD-261-10 336898 S</b>	K. DRURY	\$252.00	\$26.00	\$146.00	\$424.00V							
<b>OC LCT</b>	<b>WLD-261-11 336899 T</b>	R. THOMAS	\$252.00	\$26.00	\$146.00	\$424.00V							
<b>OC LCT</b>	<b>WLD-261-12 336900 TH</b>	R. THOMAS	\$252.00	\$26.00	\$146.00	\$424.00V							
<b>OC</b>	<b>WLD-261-13 340256 TH</b>	B. MULLIGAN	\$252.00	\$26.00	\$146.00	\$424.00V							
<b>OC</b>	<b>WLD-261-14 339924 T</b>	K. DRURY	\$252.00	\$26.00	\$146.00	\$424.00V							
<b>OC</b>	<b>WLD-261-15 340172 T</b>	K. DRURY	\$252.00	\$26.00	\$146.00	\$424.00V							
<b>OC</b>	<b>WLD-261-16 340173 W</b>	K. DRURY	\$252.00	\$26.00	\$146.00	\$424.00V							
<b>OC</b>	<b>WLD-261-17 340174 TH</b>	K. DRURY	\$252.00	\$26.00	\$146.00	\$424.00V							
<b>WLD-280</b>	<b>WELDING TECHNOLOGY/CWE, 1-6 CREDITS (VAR)</b>						<b>OC</b>	<b>WLD-280-01 336902</b>	TBA	\$756.00	\$78.00	\$45.00	\$879.00V
	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. May be repeated for up to 9 credits. Required: Student Petition.												
	<b>Corequisites:</b> CWE-281												
<b>XWLD-0001</b>	<b>AMERICAN WELDING SOCIETY (WLD) CERTIFICATION 1 PLATE TEST, 0 CREDIT</b>						<b>ONL</b>	<b>XWLD-0001-01 336928</b>	B. MULLIGAN	\$0.00	\$0.00	\$140.00	\$140.00
	Welder certification in accordance with AWS D1.1 for one position for students enrolled in any CCC welding course.												
<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.												

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ONL	<b>XWLD-0002-01</b> B. MULLIGAN Required: Student Petition.	<b>336929</b>	\$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.					
ONL	<b>XWLD-0003-01</b> B. MULLIGAN Required: Student Petition.	<b>336930</b>	\$0.00	\$0.00	\$25.00	\$25.00

**Women's Studies**

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
<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</b> K. SEVERSON No textbook required.	<b>336990 M</b>	\$504.00	\$52.00	\$0.00	\$556.00
ONL LCT	<b>WS-101-02</b> T. BOYLE- GALESTIANZ No textbook required.	<b>336991</b>	\$504.00	\$52.00	\$0.00	\$556.00

**World Languages**

Course No	Course Title, Credits	Section No	Crs Reg.	Days (M,T,W,Th,F,S,SU)	Time	Total
<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</b> A. ELLIS One-time textbook purchase for ASL-101 and ASL-102.	<b>336288 MW</b>	\$504.00	\$52.00	\$10.00	\$566.00
<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					
OC	<b>ASL-102-01</b> A. ELLIS One-time textbook purchase for ASL-101 and ASL-102.	<b>336290 MW</b>	\$504.00	\$52.00	\$10.00	\$566.00
<b>ASL-103</b>	<b>FIRST-YEAR AMERICAN SIGN LANGUAGE III, 4 CREDITS</b> Third term of a three-term introductory course. Emphasis will be on developing conversational competence. Course includes basic ASL vocabulary and grammar used for basic communication such as opening conversations, clarifying, giving reasons, narrating family history, correcting, and elaborating. <b>Prerequisites:</b> ASL-102 with a C or better					
ONL	<b>ASL-103-01</b> A. ELLIS One-time textbook purchase for ASL-103 and ASL-201.	<b>336292</b>	\$504.00	\$52.00	\$10.00	\$566.00
<b>ASL-203</b>	<b>SECOND-YEAR AMERICAN SIGN LANGUAGE III, 4 CREDITS</b> Continuation of ASL-202. Emphasizes active communication in sign language. Increased emphasis on exploring, analyzing the rules, discussing, developing, and presenting literature and poetry in sign language. <b>Prerequisites:</b> ASL-202 with a C or better					
REM	<b>ASL-203-01</b> A. ELLIS One-time textbook purchase for ASL-202 and ASL-203.	<b>336293 TTH</b>	\$504.00	\$52.00	\$10.00	\$566.00

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	Instructor		Tuition	Fee	Crs. Fee	
<b>ASL-203</b>	<b>SECOND-YEAR AMERICAN SIGN LANGUAGE III, 4 CREDITS</b> Continuation of ASL-202. Emphasizes active communication in sign language. Increased emphasis on exploring, analyzing the rules, discussing, developing, and presenting literature and poetry in sign language. <b>Prerequisites:</b> ASL-202 with a C or better					
ONL	<b>ASL-103-01</b> A. ELLIS One-time textbook purchase for ASL-103 and ASL-201.	<b>336292</b>	\$504.00	\$52.00	\$10.00	\$566.00
<b>ASL-203</b>	<b>SECOND-YEAR AMERICAN SIGN LANGUAGE III, 4 CREDITS</b> Continuation of ASL-202. Emphasizes active communication in sign language. Increased emphasis on exploring, analyzing the rules, discussing, developing, and presenting literature and poetry in sign language. <b>Prerequisites:</b> ASL-202 with a C or better					
REM	<b>ASL-203-01</b> A. ELLIS One-time textbook purchase for ASL-202 and ASL-203.	<b>336293 TTH</b>	\$504.00	\$52.00	\$10.00	\$566.00
<b>FR-103</b>	<b>FIRST-YEAR FRENCH III, 4 CREDITS</b> Third 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. <b>Prerequisites:</b> FR-102					
OC LCT	<b>FR-103-01</b> E. HERNANDEZ All materials provided first day of class.	<b>336491 TTH</b>	\$504.00	\$52.00	\$10.00	\$566.00
<b>GER-103</b>	<b>FIRST-YEAR GERMAN III, 4 CREDITS</b> Third term of a three-term foundational sequence in beginning German designed to give students basic communicative proficiency in the target language. Students will practice all four skills: listening, speaking, reading, and writing. Special attention is paid to pronunciation, essential grammar structures, and cross-cultural discussion and analysis. <b>Prerequisites:</b> GER-102 or Student Petition					
OC LCT	<b>GER-103-01</b> T. NIKOLOPOULOS All materials provided first day of class.	<b>340024 MW</b>	\$504.00	\$52.00	\$10.00	\$566.00
<b>SPN-101</b>	<b>FIRST-YEAR SPANISH I, 4 CREDITS</b> 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. <b>Recommended Prerequisites:</b> WRD-098 or placement in WR-121Z					
ONL LCT	<b>SPN-101-01</b> E. RONICK All materials provided first day of class.	<b>338072</b>	\$504.00	\$52.00	\$10.00	\$566.00
<b>SPN-102</b>	<b>FIRST-YEAR SPANISH II, 4 CREDITS</b> Second 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.					

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	Instructor		Tuition	Fee	Crs. Fee			Instructor		Tuition	Fee	Crs. Fee	
<b>Prerequisites:</b> SPN-101							OC HYB LCT	<b>WR-121Z-07</b>	<b>336941 T</b>			<b>10-11:50 AM</b>	
<b>Recommended Prerequisites:</b> WRD-098 or placement in WR-121Z								S. NIZIOLEK		\$504.00	\$52.00	\$19.00	\$575.00
OC LCT	<b>SPN-102-01</b>	<b>336900 MW</b>			<b>1-2:50 PM</b>		OC HYB LCT	<b>WR-121Z-08</b>	<b>336942 T</b>			<b>3-4:50 PM</b>	
	E. RONICK		\$504.00	\$52.00	\$10.00	\$566.00		S. WARREN		\$504.00	\$52.00	\$19.00	\$575.00
	All materials provided first day of class.						ONL LCT	<b>WR-121Z-09</b>	<b>336943</b>				
ONL LCT	<b>SPN-102-02</b>	<b>339904</b>						N. ROSEVEAR		\$504.00	\$52.00	\$19.00	\$575.00
	V. SHORT		\$504.00	\$52.00	\$10.00	\$566.00	ONL LCT	<b>WR-121Z-10</b>	<b>336944</b>				
	All materials provided first day of class.							T. DODGE		\$504.00	\$52.00	\$19.00	\$575.00
<b>SPN-103 FIRST-YEAR SPANISH III, 4 CREDITS</b>							ONL LCT	<b>WR-121Z-11</b>	<b>336945</b>				
Third 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.								T. DODGE		\$504.00	\$52.00	\$19.00	\$575.00
<b>Prerequisites:</b> SPN-102							ONL	<b>WR-121Z-12</b>	<b>336946</b>				
OC LCT	<b>SPN-103-01</b>	<b>336903 TTH</b>			<b>10-11:50 AM</b>			R. DAVIS		\$504.00	\$52.00	\$19.00	\$575.00
	A. METHADZOVIC		\$504.00	\$52.00	\$10.00	\$566.00	ONL	<b>WR-121Z-13</b>	<b>336947</b>				
	All materials provided first day of class.							R. DAVIS		\$504.00	\$52.00	\$19.00	\$575.00
ONL LCT	<b>SPN-103-02</b>	<b>336906</b>					HAR	<b>WR-121Z-15</b>	<b>340191 MW</b>			<b>10-11:50 AM</b>	
	V. SHORT		\$504.00	\$52.00	\$10.00	\$566.00		J. PONS		\$504.00	\$52.00	\$19.00	\$575.00
	All materials provided first day of class.						HAR HYB	<b>WR-121Z-16</b>	<b>340192 M</b>			<b>6-7:50 PM</b>	
<b>SPN-203 SECOND-YEAR SPANISH III, 4 CREDITS</b>								M. SCHUMACHER		\$504.00	\$52.00	\$19.00	\$575.00
Third 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.							<b>WR-122Z COMPOSITION II, 4 CREDITS</b>						
<b>Prerequisites:</b> SPN-202							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.						
ONL	<b>SPN-203-01</b>	<b>336908</b>					<b>Prerequisites:</b> WR-121Z with a C or better						
	V. SHORT		\$504.00	\$52.00	\$10.00	\$566.00	OC LCT	<b>WR-122Z-01</b>	<b>336952 MW</b>			<b>10-11:50 AM</b>	
	All materials provided first day of class.							P. CRUMRINE		\$504.00	\$52.00	\$19.00	\$575.00
<b>Writing</b>							OC LCT	<b>WR-122Z-02</b>	<b>336953 MW</b>			<b>10-11:50 AM</b>	
<b>WR-101 WORKPLACE WRITING, 4 CREDITS</b>								C. BURNELL		\$504.00	\$52.00	\$19.00	\$575.00
Students in this course learn and practice basic modes of technical writing, including summaries, process analysis, instructions, and reports.							OC LCT	<b>WR-122Z-03</b>	<b>336954 MW</b>			<b>1-2:50 PM</b>	
<b>Prerequisites:</b> WRD-098 or placement in WR-101 or WR-121Z								C. BURNELL		\$504.00	\$52.00	\$19.00	\$575.00
OC HYB LCT	<b>WR-101-01</b>	<b>336926 T</b>			<b>1-2:50 PM</b>		OC LCT	<b>WR-122Z-04</b>	<b>336955 TTH</b>			<b>10-11:50 AM</b>	
	C. ZIMMERLY-BECK		\$504.00	\$52.00	\$19.00	\$575.00		T. DONNELLY		\$504.00	\$52.00	\$19.00	\$575.00
<b>WR-121Z COMPOSITION I, 4 CREDITS</b>							OC LCT	<b>WR-122Z-05</b>	<b>336956 TTH</b>			<b>1-2:50 PM</b>	
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.								E. WILDER-TACK		\$504.00	\$52.00	\$19.00	\$575.00
<b>Prerequisites:</b> WRD-098 or placement in WR-121Z							OC HYB	<b>WR-122Z-06</b>	<b>336957 M</b>			<b>1-2:50 PM</b>	
OC LCT	<b>WR-121Z-01</b>	<b>336934 MW</b>			<b>10-11:50 AM</b>			M. SCHUMACHER		\$504.00	\$52.00	\$19.00	\$575.00
	W. DAWKINS		\$504.00	\$52.00	\$19.00	\$575.00	OC HYB LCT	<b>WR-122Z-07</b>	<b>336958 T</b>			<b>10-11:50 AM</b>	
OC LCT	<b>WR-121Z-02</b>	<b>336936 MW</b>			<b>1-2:50 PM</b>			J. DAVIS		\$504.00	\$52.00	\$19.00	\$575.00
	J. BRYANT-TRERISE		\$504.00	\$52.00	\$19.00	\$575.00	OC HYB LCT	<b>WR-122Z-08</b>	<b>336959 T</b>			<b>1-2:50 PM</b>	
OC LCT	<b>WR-121Z-03</b>	<b>336937 MW</b>			<b>1-2:50 PM</b>			R. MURPHY		\$504.00	\$52.00	\$19.00	\$575.00
	TBA		\$504.00	\$52.00	\$19.00	\$575.00	ONL LCT	<b>WR-122Z-09</b>	<b>336960</b>				
OC LCT	<b>WR-121Z-04</b>	<b>336938 TTH</b>			<b>10-11:50 AM</b>			R. MURPHY		\$504.00	\$52.00	\$19.00	\$575.00
	C. ZIMMERLY-BECK		\$504.00	\$52.00	\$19.00	\$575.00	ONL LCT	<b>WR-122Z-10</b>	<b>336961</b>				
OC LCT	<b>WR-121Z-05</b>	<b>336939 TTH</b>			<b>1-2:50 PM</b>			S. NIZIOLEK		\$504.00	\$52.00	\$19.00	\$575.00
	S. WARREN		\$504.00	\$52.00	\$19.00	\$575.00	ONL LCT	<b>WR-122Z-11</b>	<b>336962</b>				
OC HYB LCT	<b>WR-121Z-06</b>	<b>336940 M</b>			<b>1-2:50 PM</b>			R. MURPHY		\$504.00	\$52.00	\$19.00	\$575.00
	W. DAWKINS		\$504.00	\$52.00	\$19.00	\$575.00	ONL	<b>WR-122Z-12</b>	<b>336963</b>				
								L. ORMANDY		\$504.00	\$52.00	\$19.00	\$575.00
							ONL	<b>WR-122Z-13</b>	<b>336964</b>				
								M. SCHUMACHER		\$504.00	\$52.00	\$19.00	\$575.00
							HAR	<b>WR-122Z-15</b>	<b>340193 MW</b>			<b>1-2:50 PM</b>	
								E. WILDER-TACK		\$504.00	\$52.00	\$19.00	\$575.00
							<b>WR-124ES ESCRITURA DE ENSAYOS DE NIVEL UNIVERSITARIO EN ESPAÑOL, 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)	Time	Total
Instructor	Tuition	Fee	Crs. Fee			
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-098ES o tener un nivel de evaluación de WR-124ES						
ONL ESPAÑOL	<b>WR-124ES-01 340195</b>	A. DEFREESE	\$504.00	\$52.00	\$19.00	\$575.00
<b>WR-128</b>	<b>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 336967</b>	S. PESZNECKER	\$0.00	\$0.00	\$19.00	\$19.00
<b>WR-220</b>	<b>CREATIVE WRITING: COMICS, 4 CREDITS</b>	Through the discussion and analysis of dramatic structure, character development and the elements of good storytelling in both visual and written language, students will learn the basic elements of scriptwriting for comics. They will also develop skills in the reading, writing, research, discussion and editing of their own work.				
<b>Prerequisites:</b> WRD-098 or placement in WR-121Z						
<b>Recommended Prerequisites:</b> ENG-116						
OC HYB	<b>WR-220-01 340198 TH</b>	T. DODGE	\$504.00	\$52.00	\$0.00	\$556.00
<b>WR-222</b>	<b>ENGLISH COMPOSITION, 4 CREDITS</b>	A course in writing university-level research papers and pursuing lifelong learning through advanced research. Students continue to develop their information and research literacy by carrying out inquiry-driven research; this involves a variety of research skills and tools and an emphasis on locating, assessing, and working with college library resources.				
<b>Prerequisites:</b> WR-122Z						
ONL	<b>WR-222-01 340197</b>	S. PESZNECKER	\$504.00	\$52.00	\$19.00	\$575.00
<b>WR-227Z</b>	<b>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 336969 TTH</b>	L. ORMANDY	\$504.00	\$52.00	\$19.00	\$575.00

**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  
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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 HYB LCT	<b>WR-227Z-02 336970 T</b>	L. ORMANDY	\$504.00	\$52.00	\$19.00	\$575.00
ONL LCT	<b>WR-227Z-03 336971</b>	J. MCALPINE	\$504.00	\$52.00	\$19.00	\$575.00
ONL LCT	<b>WR-227Z-04 336972</b>	C. ZIMMERLY-BECK	\$504.00	\$52.00	\$19.00	\$575.00
ONL	<b>WR-227Z-05 340199</b>	S. WARREN	\$504.00	\$52.00	\$19.00	\$575.00
HAR HYB	<b>WR-227Z-15 340200 T</b>	TBA	\$504.00	\$52.00	\$19.00	\$575.00
<b>WR-240</b>	<b>CREATIVE NONFICTION WRITING I, 4 CREDITS</b>	Techniques of writing and analyzing types of creative nonfiction such as literary journalism, memoirs, nature or science writing, travel writing, and personal essays.				
<b>Prerequisites:</b> WRD-098 or placement in WR-121Z						
ONL LCT	<b>WR-240-01 336974</b>	T. DODGE	\$504.00	\$52.00	\$19.00	\$575.00
<b>WR-244</b>	<b>FICTION WRITING II, 4 CREDITS</b>	For students with previous writing experience who wish to learn advanced techniques in the theory, art and creative practice of fiction writing. Specific emphasis on the creation and revision of short prose forms, with focused attention on their publication and distribution.				
<b>Prerequisites:</b> WR-241						
OC HYB LCT	<b>WR-244-01 336975 T</b>	N. ROSEVEAR	\$504.00	\$52.00	\$19.00	\$575.00
<b>WR-262</b>	<b>INTRODUCTION TO SCREENWRITING, 4 CREDITS</b>	Explores the fundamentals of screenplay composition through the use of various writing exercises and workshop techniques. Discussion of dramatic structure and the elements of good storytelling. May be repeated for up to 8 credits.				
<b>Prerequisites:</b> WRD-098 or placement in WR-121Z						
oc	<b>WR-262-01 336977 MW</b>	R. DAVIS	\$504.00	\$52.00	\$19.00	\$575.00
<b>WR-265</b>	<b>DIGITAL STORYTELLING, 4 CREDITS</b>	Digital Storytelling is a contemporary expression of the ancient art of storytelling. In this class students will write and create unique digital first person narratives using cloud-based editing tools, photographic and film images, music, and voice. Students will further become active participants in both local and global communities of storytellers.				
<b>Recommended Prerequisites:</b> WRD-098 or placement in WR-121Z						
oc	<b>WR-265-01 338046 TTH</b>	A. COFFEY	\$504.00	\$52.00	\$40.00	\$596.00
<b>WRD-090</b>	<b>INTRODUCTORY COLLEGE READING &amp; WRITING 1, 4 CREDITS</b>	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.				
<b>Prerequisites:</b> Placement in WRD-090						
OC LCT	<b>WRD-090-01 336978 TTH</b>	J. PONS	\$504.00	\$52.00	\$19.00	\$575.00
ONL LCT	<b>WRD-090-02 336980</b>	A. WARREN	\$504.00	\$52.00	\$19.00	\$575.00
<b>WRD-098</b>	<b>INTRODUCTORY COLLEGE READING &amp; WRITING 2, 4 CREDITS</b>					



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

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>336982</b>	<b>MW</b>		<b>1-2:50 PM</b>	
	J. DAVIS		\$504.00	\$52.00	\$19.00	\$575.00
OC LCT	<b>WRD-098-02</b>	<b>336984</b>	<b>TTH</b>		<b>1-2:50 PM</b>	
	J. PONS		\$504.00	\$52.00	\$19.00	\$575.00
ONL LCT	<b>WRD-098-03</b>	<b>336986</b>				
	E. WILDER-TACK		\$504.00	\$52.00	\$19.00	\$575.00
ONL	<b>WRD-098-04</b>	<b>336988</b>				
	TBA		\$504.00	\$52.00	\$19.00	\$575.00
HAR	<b>WRD-098-15</b>	<b>340201</b>	<b>MW</b>		<b>6-7:50 PM</b>	
	TBA		\$504.00	\$52.00	\$19.00	\$575.00

**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:** Tener un nivel de evaluación de WRD-098ES

ONL ESPAÑOL	<b>WRD-098ES-01</b>	<b>340203</b>				
	A. DEFREESE		\$504.00	\$52.00	\$19.00	\$575.00

**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.

OC HYB LCT	<b>XWR-0001-01</b>	<b>336995</b>	<b>W</b>		<b>12-1:50 PM</b>	
	P. LICHEN		\$0.00	\$0.00	\$0.00	\$0.00

**Zoology**

**Z-203 GENERAL ZOOLOGY, 4 CREDITS**

A lab course covering diversity of the more complex invertebrate and vertebrate animal phyla. Includes animal anatomy/physiology, animal behavior, distribution, ecology and conservation.

**Prerequisites:** MTH-095 with a C or better or placement in MTH-111Z

**Corequisites:** Z-203L

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

oc	<b>Z-203-01</b>	<b>336931</b>	<b>MW</b>		<b>10:30 -11:50 AM</b>	
	J. BOWN		\$504.00	\$52.00	\$55.00	\$611.00
	Corequisite: Take the following Z-203L-01.					

**Z-203L GENERAL ZOOLOGY LAB, 0 CREDIT**

Lab course for Z-203

**Corequisites:** Z-203

oc	<b>Z-203L-01</b>	<b>336935</b>	<b>W</b>		<b>1-3:50 PM</b>	
	J. BOWN		\$0.00	\$0.00	\$0.00	\$0.00
	Corequisite: Take the following Z-203-01.					

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**ESPAÑOL:** Enseñado en español

**LCT:** Low-Cost Text

# WE WELCOME ALL AT CCC!

**ALL ETHNICITIES,  
ALL RELIGIONS,**

**ALL COUNTRIES  
OF ORIGIN, ALL AGES,**

**ALL ABILITIES,  
ALL GENDER IDENTITIES,**

**ALL SEXUAL  
ORIENTATIONS.**

***WE STAND WITH YOU.  
YOU BELONG HERE!***



 **Clackamas**  
Community College

# COMMUNITY EDUCATION



## Our community partners provide programming for all ages!

Clackamas Community College's Community Education Department is entering a new chapter as we welcome a new Community Education Coordinator.

With a desire for growth, we are committed to expanding and diversifying our programming to better serve the needs and interests of our local community.

As we envision the future of Community Education, we recognize that input from community members is essential to shaping the direction of our offerings.

We are excited to hear from individuals about the programs they would like to see, the skills they want to develop and the opportunities they feel would benefit the broader community.

Together with our community partners, we can create a vibrant and inclusive educational experience that reflects the dynamic needs of those we serve. To provide feedback, scan the QR code or visit [bit.ly/community-edu-survey](https://bit.ly/community-edu-survey) to complete the anonymous survey!



### Senior Discount

Seniors 62 years of age or older qualify for discounted tuition for many Community Education classes. Proof of age is required.



### CANBY

#### Bridging Cultures

503-592-3781 | [www.bridgingculturescanby.org](http://www.bridgingculturescanby.org)

### GLADSTONE

#### Gladstone Community School

503-650-2570 | [www.clackamas.edu/gladstone](http://www.clackamas.edu/gladstone)

### MILWAUKIE

#### Milwaukie Community Center

503-794-8092 | [www.ncprd.com](http://www.ncprd.com)

#### North Clackamas Parks and Recreation

503-794-8080, ext. 0 | [www.ncprd.com](http://www.ncprd.com)

### OREGON CITY

#### Oregon City Community Education

503-785-8520 | <https://ocsd62occe.org>

#### Oregon City Swimming Pool

503-657-8273 | [www.orcity.org/904/Aquatics](http://www.orcity.org/904/Aquatics)

#### Pioneer Community Center

503-657-8287 | [www.orcity.org/499/Pioneer-Community-Center](http://www.orcity.org/499/Pioneer-Community-Center)

### TEAM OREGON

#### Motorcycle/Scooter Safety Training

800-545-9944 | [www.team-oregon.org](http://www.team-oregon.org)

### WEST LINN

#### West Linn Parks and Recreation

503-557-4700 | [www.westlinnoregon.gov/parksrec](http://www.westlinnoregon.gov/parksrec)

### WILSONVILLE

#### City of Wilsonville Parks and Recreation

503-783-PLAY | [www.wilsonvilleparksandrec.com/parksrec](http://www.wilsonvilleparksandrec.com/parksrec)

#### West Linn/Wilsonville Family Empowerment Center

503-673-7690 | [www.wlww.k12.or.us/domain/3726](http://www.wlww.k12.or.us/domain/3726)

Please register for classes directly through the Community Education Partner hosting the class you would like to attend. Many partners accept online registrations on their websites. Please contact the partner if you have additional questions regarding your classes or their policy regarding refunds.

# 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)

# HOURS CCC Oregon City Campus

## ALL CAMPUSES CLOSED

May 26, Memorial Day

Most student services are available during their regular business hours through video conference, phone and email. For the most up-to-date information, visit [www.clackamas.edu/hours](http://www.clackamas.edu/hours).

### BARLOW HALL

#### ITS – Information Technology Services

Mar. 31-June 14 M-F 7 a.m.-7 p.m.

### DYE LEARNING CENTER

#### Academic Computing Lab

Limited on-campus computers available for student use, see website for specific days and times.

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

#### Library

Open in person and online. For research help, visiting hours, and access to articles, books, streaming video, and more, go to [library.clackamas.edu](http://library.clackamas.edu)

#### Writing Center, Math Lab and Other Tutoring Services

Limited on-campus and online tutoring available, see website for specific days and times.

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

#### Cougar Connect Tech Help Desk / Moodle Help

On-campus technology help is available during regular business hours; visit the [Cougar Connect Tech Help Desk](#) for specific days and times.

For virtual technology help, visit <https://www.clackamas.edu/cougarconnect> or call 503-594-6632 during regular business hours. For after hours, weekend, or bilingual support, visit [online.clackamas.edu](http://online.clackamas.edu) (see Academic Support and Essentials > Moodle Help > Extended Support).

### McLOUGHLIN HALL

#### Bookstore

Open Monday-Friday, please check the website at <https://clackamasccbookstore.com> for the current days and times.

#### Textbook Buyback & Rental Check-In

Rental Return Due Date - June 13, 2025

### PAULING CENTER

#### Workforce Development Services

Mar. 31-June 14 M-F 8 a.m.-5 p.m.

### RANDALL HALL

#### Fitness Center

(Hours vary, please check door for posted hours)

### STREETER HALL

#### Open Computing Lab

Limited on-campus computers available for student use, see website for specific days and times.

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

### WACHENO WELCOME CENTER

Wacheno welcome Center offers limited in-person services on Fridays from 9 a.m.-4 p.m.

#### Academic Advising & Career Services

Office Hours M/T/Th 9 a.m.-4 p.m.  
W 10 a.m.-4 p.m.

Remote working hours M-F 8 a.m.-5 p.m.

#### Counseling Services

Telehealth and in-person appointments available, contact [counseling@clackamas.edu](mailto:counseling@clackamas.edu) or call 503-594-3176.

Office Hours M-Th 9 a.m.-4 p.m.

Remote working hours M-F 8 a.m.-5 p.m.

#### Disability Resource Center

Office Hours M-Th 9 a.m.-4 p.m.

Remote working hours M-F 8 a.m.-5 p.m.

#### Enrollment Services & Graduation Services

Office Hours M-Th 9 a.m.-4 p.m.

Remote working hours M-F 8 a.m.-5 p.m.

#### Financial Aid Resource Lab

Available M-Th 10 a.m.-1 p.m. or by appt.

Drop-In Zoom hours: MW 11 a.m.-2 p.m.

#### Financial Aid & Scholarships

Office Hours M/T/Th 9 a.m.-4 p.m.

W 10 a.m.-4 p.m.

Remote working hours M-F 8 a.m.-5 p.m.

#### Student Life & Leadership

Office Hours M-Th 9 a.m.-4 p.m.

Remote working hours M-F 8 a.m.-5 p.m.

#### Testing & Assessment Center

(Call 503-594-3283 for specific test times)

#### Veterans Education and Training Center

Office Hours M-Th 9 a.m.-4 p.m.

Remote working hours M-F 8 a.m.-5 p.m.

## WHERE TO FIND FOOD

**Cafeteria:** Cougar Café, Wacheno Welcome Center, hours vary. The café features grill items such as burgers and fries. In addition, vending machines offer fresh-food options as well as convenience items.

**Bookstore,** McLoughlin Hall, offers a variety of grab-and-go food selections as well as convenience items and beverages, including coffee. A microwave is available in the store to heat food.

**Vending machines** in various other locations across campus will provide additional snacks.

## CCC BOOKSTORE

Oregon City campus – in McLoughlin Hall, ground floor  
503-594-6500

### 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.

#### Spring term dates to remember:

Textbook sales begin online and in-store – Mar. 3, 2025  
Last day for textbook refunds – Apr. 4, 2025 without drop;  
Apr. 25 with proof of drop  
Rental books due back – June 13, 2025

Shop with purpose at Clackamas Community College Bookstore. Every purchase directly benefits the Clackamas Community College campus community. From student scholarships to new programs, your dollars make a difference in shaping a brighter academic future.

*For campus maps, store hours, shipping costs, refund/returns policies and ordering details, see [clackamascbookstore.com](http://clackamascbookstore.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



**Cougar Alert!**

### 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:

#### Campus closure

If all campuses are closed, all classes, athletics, and events are canceled. Child care services may also close.

#### Late start

If the college issues a late start, all classes, events, and activities are canceled until a time to be determined.

#### Evening class closure

Should inclement weather hit in the afternoon or evening, a closure will be determined by 3 p.m. when possible. In the event of an evening closure, the college will close at 5 p.m. and all classes beginning at or after 4 p.m. will be canceled.

### 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.

# 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	Keely Baca	503-594-3409	M223	keely.baca@clackamas.edu
Apprenticeship	Katelyn Karch	503-594-6201	T128	kkarch@clackamas.edu
Arboriculture	Chris Konieczka	503-594-6213	C124	chrisk@clackamas.edu
Art	Nora Brodnicki	503-594-3036	AC106	norab@clackamas.edu
Automotive	Dustin Bates	503-594-3973	B259	dustinb@clackamas.edu
Business Administration	Sharon Parker	503-594-3075	S123	sharonp@clackamas.edu
Career Technical Education Licensure Prep	Megan Helzerman	503-594-0976	F108c	meganh@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	P104	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
Educación Infantil y Estudios Familiares	Ada Echevarria	503-594-1828	F112	ada.echevarria@clackamas.edu
Electronics and Microelectronics	Mike Mattson	503-594-3322	I217I	mattsonm@clackamas.edu
Emergency Medical Technology	Tana Sawzak	503-594-6025	H382	tanasa@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	RR242	amandac@clackamas.edu
English for Speakers of Other Languages	Laura Joyce	503-594-3718	D146	lauraj@clackamas.edu
Environmental Safety and Health	Mike Mattson	503-594-3322	I217I	mattsonm@clackamas.edu
Fire Science	Jordan Gulley	503-594-3683	C141	wildlandfire@clackamas.edu
GED/ABE	Lisa Nielson	503-594-3401	D144	lisan@clackamas.edu
Geography	Derek Lougee	503-594-3408	M213	derek.lougee@clackamas.edu
Gerontology	Yvonne Smith	503-594-3207	HW315	yvonne@clackamas.edu
GIS	Angela Armen	503-594-3678	M223	angela.armen@clackamas.edu
History	Jackie Flowers	503-594-3405	M217	jackief@clackamas.edu
Horticulture	Chris Konieczka	503-594-6213	C124	chrisk@clackamas.edu
Human Resource Management	Michael Moiso	503-594-3770	S128	mmoiso@clackamas.edu
Human Services	Yvonne Smith	503-594-3207	F119	yvonne@clackamas.edu
Humanities	Derek Lougee	503-594-3408	M213	derek.lougee@clackamas.edu
Humanities	Amanda Coffey	503-594-3257	RR237	amandac@clackamas.edu
Industrial Technology	Mike Mattson	503-594-3322	I217I	mattsonm@clackamas.edu
Journalism	Melissa Jones	503-594-3261	RR132	melissaj@clackamas.edu
Landscape	Chris Konieczka	503-594-6213	C124	chrisk@clackamas.edu
Management	Sharon Parker	503-594-3075	S123	sharonp@clackamas.edu
Marketing	Beverly Forney	503-594-3115	S129	beverlyf@clackamas.edu
Math	Kelly Mercer	503-594-6154	S102	kelly.mercer@clackamas.edu
Medical Assistant	Sarah Parker	503-594-6497	H381	sarah.parker@clackamas.edu
Music	Lars Campbell	503-594-3384	N131	lars.campbell@clackamas.edu
Music Technology	David Badstubner	503-594-6368	N129b	david.badstubner@clackamas.edu
Nursing	Carol Dodson	503-594-0654	H280	carold@clackamas.edu
Organic Farming	Chris Konieczka	503-594-6213	C124	chrisk@clackamas.edu
Philosophy	Derek Lougee	503-594-3408	M213	derek.lougee@clackamas.edu
Physical Education/Health	Jim Martineau	503-594-3271	R101c	martineau@clackamas.edu
Political Science	Derek Lougee	503-594-3408	M213	derek.lougee@clackamas.edu
Pre-Professional (medical, dental, pharmacy)	Eden Francis	503-594-3352	P124k	edenf@clackamas.edu
Project Management	Frank Corona	503-594-6498	S130	francisco.corona@clackamas.edu
Psychology	Jessica Kissler	503-594-6625	M210	jessica.kissler@clackamas.edu
Religion	Derek Lougee	503-594-3408	M213	derek.lougee@clackamas.edu
Reading/Study Skills	Lisa Nielson	503-594-3401	D144	lisan@clackamas.edu
Renewable Energy	Mike Mattson	503-594-3322	I217I	mattsonm@clackamas.edu
Retail Management	Beverly Forney	503-594-3115	S129	beverlyf@clackamas.edu
Science	Kelly Mercer	503-594-6154	S102	kelly.mercer@clackamas.edu
Search and Rescue	Matt Adams	503-594-3677	T125	matt.adams@clackamas.edu
Skills Development	Lisa Nielson	503-594-3401	D144	lisan@clackamas.edu
Small Business Development Center	Rob Campbell	503-594-0733	HW160E	bizcenter@clackamas.edu
Social Science	Derek Lougee	503-594-3408	M213	derek.lougee@clackamas.edu
Sociology	Erich Pfeifer	503-594-3802	M225	erichp@clackamas.edu
Theatre Arts	Chris Whitten	503-594-3153	N152	cwhitten@clackamas.edu
Undecided Major of Study	Student Support Services	503-594-3475	WC	advising@clackamas.edu
Uncrewed Aircraft Systems	Angela Armen	503-594-3678	M223	angela.armen@clackamas.edu
Water & Environmental Technology	Matt LaForce	503-594-3148	DJ210	laforce@clackamas.edu
Water & Environmental Technology	Jim Nurmi	503-594-3813	DJ211	jamesn@clackamas.edu
Welding	Dustin Bates	503-594-3973	B259	dustinb@clackamas.edu
Women's Studies	Derek Lougee	503-594-3408	M213	derek.lougee@clackamas.edu
World Languages	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
<b>ABE/GED</b>		
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
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## 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	503-594-0971
C	Arboriculture	503-594-3292
AC	Art	503-594-3034
WC	Associated Student Government	503-594-3040
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
P	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	503-594-0971
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	503-594-3306
B	Environmental Safety & Health	503-594-3322
G	Events & Conference Services - Oregon City	503-594-3308
H	Events & Conference Services - Harmony	503-594-0950
W	Events & Conference Services - Wilsonville	503-594-0970
WC	Financial Aid and Scholarship Office	503-594-6082
HW	Gerontology	503-594-3203
T	GIS	503-594-0971
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 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
T	Wildland Fire	503-594-0971
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**.

# SERVICES FOR STUDENTS



## We've got you covered.

**The Student Life & Leadership Office in Room 160 of the Wacheno Welcome Center offers lots of services to help you.**

**Free Food Pantry:** A free pantry that offers food and toiletries for students. Donations accepted! For more information, visit our website: [www.clackamas.edu/food-pantry](http://www.clackamas.edu/food-pantry).

**Grants:** There are grants available for child care, textbooks, fees, transportation and veterans gas cards and course materials. 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).

**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 WC 160.

**Fax & Phone:** Fax service is available to students in the Student Life Office. There is also a phone you can use, free of charge, in the Wacheno Welcome Center.

**Register to Vote:** It's simple and fast. Voter registration links for Oregon and Washington available on the Student Government webpage: [www.clackamas.edu/ASG](http://www.clackamas.edu/ASG)



# TRANSPORTATION OPTIONS

## Save money on your CCC commute!

Clackamas Community College connects students with a variety of transportation resources including fare assistance, ClackCo free shuttle service, carpooling matching, and multiple bus options.

The latest information and additional details can be found at [www.clackamas.edu/transportation](http://www.clackamas.edu/transportation).

### CLACKAMAS COUNTY CONNECTS FREE SHUTTLES

Free shuttles in Oregon City, Clackamas Town Center/Harmony, Clackamas Industrial Area, and Estacada. 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.

### NEAR CLACKAMAS TOWN CENTER?

Ride the CCC Xpress or Clackamas Industrial Area Shuttles. Plan your route at [rideclackamas.org](http://rideclackamas.org).



### DRIVE?

Find a carpool partner at [GetThereOregon.org](http://GetThereOregon.org).



### RIDE THE BUS?

CCC has partnered with TriMet to provide reduced or free TriMet fares. Email [transportation@clackamas.edu](mailto:transportation@clackamas.edu) or go to the Wacheno Welcome Center for more info.



#### Southbound

<b>A</b>	Clackamas Town Center	5:55	7:15	8:35	9:55	11:55	1:15	2:35	3:55	5:55	7:15
<b>B</b>	CCC Harmony Campus	6:05	7:25	8:45	10:05	12:05	1:25	2:45	4:05	6:05	7:25
<b>C</b>	Oregon City Transit Center	6:25	7:45	9:05	10:25	12:25	1:45	3:05	4:25	6:25	7:45
<b>D</b>	Clairmoet Dr. CCC Campus	6:40	8:00	9:20	10:40	12:40	2:00	3:20	4:40	6:40	8:00

#### Northbound

<b>E</b>	CCC Oregon City Campus	6:45	8:05	9:25	10:45	12:45	2:05	3:25	4:45	6:45	8:05
<b>B</b>	CCC Harmony Campus	7:00	8:20	9:40	11:00	1:00	2:20	3:40	5:00	7:00	8:20
<b>A</b>	Clackamas Town Center	7:10	8:30	9:50	11:10	1:10	2:30	3:50	5:10	7:10	8:30

The CCC Xpress Shuttle is a **free** "deviated fix-route" service. Can't make it to the main bus stop or route? **Call 24 hours in advance** to make arrangements and check availability to be picked up or dropped off within 3/4 mile from the route or in the deviation zone. You may also signal/flag the bus to get on or off the bus in-between stops.

The CCC Xpress Shuttle operates 7 days a week. The Clackamas Industrial Area Shuttle does not operate on New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, or Christmas Day.

Schedule Times in **Bold** = PM







# Clackamas Community College

## OREGON CITY CAMPUS MAP

### Having difficulty finding parking?

Although it may be tempting to park in no-parking or handicapped spaces, parking citations are issued and vehicles are subject to towing and storage fees.

Students with disabilities should pick up a state application form from the Department of Motor Vehicles.



### BUILDING CODES and SERVICES

#### Art Center (AC)

#### Barlow Hall (B)

- Human Resources

#### Clairmont Hall (C)

#### 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)

- Welding

#### 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