Clackamas Community College

Schedule



Winter 2027

Winter term classes begin Jan. 4, 2027 • *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 applic-able law. The college's commitment to nondiscrimination applies to curriculum activity and all aspects of operation of the college.

IMPORTANT DATES TO REMEMBER

CLASS START/END DATES + FINANCIAL DEADLINES *	WINTER 2027	SPRING TERM 2027	SUMMER TERM 2027
Financial aid: All required CCC financial aid documentation due to ensure funding for term	Sept. 28	Jan. 4	March 29
Registration begins	Nov. 16	Feb. 22	May 10
Classes begin	Jan. 4	March 29	June 21
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)	Jan.17	April 11	July 5
Last day to drop classes and receive a "W" automatically	Feb. 26	May 21	Aug. 13
Last day to submit petition for graduation	Feb. 12	May 7	July 30
Last day to change grading option	March 12	June 4	Aug. 27
Account balance due: $100 non-payment fee applied if not paid	Feb. 12	May 7	July 30
Final week	March 15-20	June 7-12	*Refrer to syllabus*
Last day of term	March 20	June 12	Sept. 4
Commencement: GED & Adult High School Diploma / College Certificate and Degree	Friday evening, June 11, 2027		

* *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
WINTER TERM: **Jan. 1** New Years Day, **Jan. 18** MLK Jr. Day, **Feb. 15** Presidents Day
SPRING TERM: **May 31** Memorial Day
SUMMER TERM: **June 18** Juneteenth, **July 5** Independence Day, **Sept. 6** Labor Day

FINAL EXAM SCHEDULE

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

CLACKAMAS IN YOUR COMMUNITY

Credit and non-credit courses offered at Clackamas Community College sites near you Winter 2027

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-232LZ	HUMAN ANATOMY AND PHYSIOLOGY II LAB	0 CREDIT
BI-232Z	HUMAN ANATOMY AND PHYSIOLOGY II	4 CREDITS

Chemistry

CH-112Z	CHEMISTRY FOR HEALTH PROFESSIONS	4 CREDITS
CH-114	CHEMISTRY IN ART	4 CREDITS
CH-114L	CHEMISTRY IN ART 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-110	INTRODUCTION TO LAW ENFORCEMENT	3 CREDITS
CJA-120	INTRODUCTION TO COURTS	3 CREDITS
CJA-122	CRIMINAL LAW	4 CREDITS
CJA-134	CORRECTIONAL INSTITUTIONS	3 CREDITS
CJA-201	JUVENILE DELINQUENCY	4 CREDITS
CJA-203	CRISIS INTERVENTION	3 CREDITS
CJA-222	PROCEDURAL LAW	3 CREDITS
CJA-280	CRIMINAL JUSTICE/CORRECTIONS/CWE	2-6 CREDITS

Dental Assistant

DA-102	DENTAL RADIOLOGY II	2 CREDITS
DA-102L	DENTAL RADIOLOGY II LAB	1 CREDIT
DA-105	CLINICAL PROCEDURES II	2 CREDITS
DA-105L	CLINICAL PROCEDURES II LAB	1 CREDIT
DA-108	DENTAL MATERIALS II	2 CREDITS
DA-108L	DENTAL MATERIALS II LAB	1 CREDIT
DA-120	CLINICAL PRACTICUM II	5 CREDITS

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

English for Speakers of Other Languages

ESOL-012	BEGINNING ESOL	0 CREDIT
ESOL-015	BEGINNING READING, WRITING, AND GRAMMAR	0 CREDIT
ESOL-020	UPPER BEGINNING GRAMMAR	0 CREDIT
ESOL-022	UPPER BEGINNING CONVERSATION	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-033	INTERMEDIATE CONVERSATION 2	0 CREDIT
ESOL-034	INTERMEDIATE READING & WRITING	0 CREDIT
ESOL-043	UPPER INTERMEDIATE CONVERSATION 2	0 CREDIT
ESOL-046	EDITING FOR BETTER WRITING	0 CREDIT
ESOL-053	ADVANCED COMMUNICATION SKILLS 2	0 CREDIT
ESOL-054	ADVANCED READING & WRITING	0 CREDIT
ESOL-055	ADVANCED GRAMMAR C	0 CREDIT
ESOL-082	ASSESS/EVALUATE NEW STUDENTS	0 CREDIT
ESOL-083	EDUCATIONAL PLANNING FOR RETURNING STUDENTS	0 CREDIT

Environmental Science

ESR-172L	INTRODUCTION TO CLIMATE CHANGE 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-102	GENERAL GEOLOGY	4 CREDITS
G-102L	GENERAL GEOLOGY LAB	0 CREDIT
G-202	GENERAL GEOLOGY	4 CREDITS

G-202L	GENERAL GEOLOGY LAB	0 CREDIT

Health

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

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
HP-130	COMMUNICATIONS AND ETHICAL PRACTICES IN HEALTHCARE SETTINGS	2 CREDITS

High School Diploma (AHSD)

ASE-042	JOB SKILLS COMPETENCY LAB	0.5 CREDIT

Mathematics

MTH-060	ALGEBRA I	4 CREDITS
MTH-065	ALGEBRA II	4 CREDITS
MTH-111Z	PRECALCULUS I: FUNCTIONS	4 CREDITS

Medical Assistant

MA-156	PHLEBOTOMY I	1 CREDIT
MA-156L	PHLEBOTOMY I LAB	1 CREDIT
MA-160	INSURANCE & HEALTH INFORMATION MANAGEMENT	3 CREDITS
MA-162	EXAMINATION ROOM TECHNIQUES II	3 CREDITS
MA-162L	EXAMINATION ROOM TECHNIQUES LAB II	1 CREDIT
MA-164	CLINICAL LAB PROCEDURES I	1 CREDIT
MA-164L	CLINICAL LAB PROCEDURES I LAB	1 CREDIT
MA-168	SEMINAR II	2 CREDITS

Medical Billing and Coding

MBC-115	INSURANCE BILLING AND REIMBURSEMENT I	4 CREDITS
MBC-120	INTRODUCTION TO MEDICAL CODING	3 CREDITS
MBC-135	LAW AND ETHICS FOR HEALTHCARE PROFESSIONS	3 CREDITS

Nursing

NRS-111	FOUNDATIONS OF NURSING IN CHRONIC ILLNESS I	3 CREDITS
NRS-111C	FOUNDATIONS OF NURSING IN CHRONIC ILLNESS I CLINICAL	3 CREDITS
NRS-221	CHRONIC ILLNESS II AND END OF LIFE	4 CREDITS
NRS-221C	CHRONIC ILLNESS II AND END OF LIFE CLINICAL	5 CREDITS
NRS-231	CLINICAL PHARMACOLOGY II	3 CREDITS
NRS-232	PATHOPHYSIOLOGICAL PROCESSES I	3 CREDITS
NUR-100	NURSING ASSISTANT I	6.5 CREDITS
NUR-100C	NURSING ASSISTANT I CLINICAL	0 CREDIT

Phlebotomy

PHB-125	PROFESSIONALISM IN HEALTHCARE	1 CREDIT
PHB-130	PHLEBOTOMY PRACTICUM	5 CREDITS

Psychology

PSY-201Z	INTRODUCTION TO PSYCHOLOGY I	4 CREDITS
PSY-215	INTRODUCTION TO DEVELOPMENTAL PSYCHOLOGY	4 CREDITS

Small Business Development Center

SBM-010	REAL ESTATE BROKER LICENSE	0 CREDIT
SBM-011	PROPERTY MANAGEMENT PRE-LICENSE	0 CREDIT
SBM-028B	CONTRACTOR ESSENTIALS MANAGEMENT - PART 2	0 CREDIT
SBM-029B	NEXT LEVEL CONTRACTING: ADVANCED BUSINESS STRATEGIES - PART 2	0 CREDIT
SBM-031B	SCOREBOARDS IN BUSINESS - PART 2	0 CREDIT
XSBM-0003	GOING INTO BUSINESS	0 CREDIT
XSBM-0005	GOING OUT OF BUSINESS	0 CREDIT
XSBM-0010	PREPARING FOR THE CCB EXAM	0 CREDIT
XSBM-0024	CONSTRUCTION BUSINESS FUNDAMENTALS: ACCURATE ESTIMATING & FINANCIAL RECORDS	0 CREDIT
XSBM-0025	LCB PREP CLASS AND EXAM	0 CREDIT
XSBM-0026	EXIT SMART: RETIRING WITH SELLING & SUCCESSION STRATEGIES	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 / Instructor | Crs Reg. | Days (M,T,W,TH.F,S,SU) / Tuition | Fee | Time / Crs. Fee | Total

COURSE LISTING

Credit and non-credit Courses offered Winter 2027

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. Variable Hours: 40-88 hours. Required: Student Petition.

OC NCT	ABE-012-07	350466	MTWTH		10-11:50 AM		
	D. GREEN		$0.00	$0.00	$60.00	$60.00	
	Required: Student Petition.						

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 hominins, and the role of the biological anthropologist in forensic science.

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

OC NCT	ANT-101-01	350468	TTH		10-11:50 AM		
	K. BACA		$544.00	$56.00	$0.00	$600.00	

ANT-103 CULTURAL ANTHROPOLOGY, 4 CREDITS

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

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

OC NCT	ANT-103-01	350472	TTH		1-2:50 PM		
	K. BACA		$544.00	$56.00	$0.00	$600.00	
ONL NCT	ANT-103-02	353364					
	K. BACA		$544.00	$56.00	$0.00	$600.00	

ANT-232 NATIVE AMERICANS OF NORTH AMERICA, 4 CREDITS

A broad survey of the cultures, arts, and history of Native Americans north of Mexico. Uses archaeological, ethno-historical, and ethnographic evidence to explore the diversity of Native American cultures from prehistoric times to the present. Includes contemporary issues in Native American life.

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

ONL NCT	ANT-232-01	354870					
	K. BACA		$544.00	$56.00	$0.00	$600.00	

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

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

Corequisites: CWE-281

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

OC NCT	ANT-280-01	350477					
	K. BACA		$816.00	$84.00	$45.00	$945.00V	
	Required: Student Petition. Corequisite: Take the following CWE-281-06.						

Art

ART-100A JEWELRY MAKING TECHNIQUES, 1 CREDIT

Various topics will introduce techniques in: construction, forming, fabrication, soldering, inlay, etching, mold making, casting, stone setting, chain making and silversmithing. Students will be encouraged to create and design their own jewelry with both meaning and function. Historical and contemporary issues surrounding jewelry and body adornment will be presented and discussed during the course. May be repeated for up to 3 credits.

OC NCT	ART-100A-01	350589	T		1-4:20 PM		
	J. IIJIMA		$136.00	$14.00	$50.00	$200.00	
	Meets: 1/19-3/2. Focus: Ring Making.						
OC NCT	ART-100A-02	350591	TH		1-4:20 PM		
	J. IIJIMA		$136.00	$14.00	$50.00	$200.00	
	Meets: 1/21-3/4. Focus: Casting.						

ART-101 ART APPRECIATION, 3 CREDITS

Discover the fundamentals of thinking about and creating art through readings, class discussions, and gallery and museum (virtual) 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 NCT	ART-101-01	350592					
	C. SIEGFRIED		$408.00	$42.00	$0.00	$450.00	

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 NCT	ART-115-01	350595	MW		1-3:50 PM		
	C. SIEGFRIED		$544.00	$56.00	$80.00	$680.00	
OC NCT	ART-115-02	350603	TTH		1-3:50 PM		
	R. KALMAN		$544.00	$56.00	$80.00	$680.00	

ART-119 TIME-BASED ART, 4 CREDITS

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

ONL NCT	ART-119-01	350607					
	K. SIMMONS		$544.00	$56.00	$80.00	$680.00	
	Pick up supplies Week 1: Tue, 1/5, 11:00am-1:00pm.						

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.

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
NCT: No-Cost Text

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
ONL NCT	**ART-131-01** A. SCHROER	**350610**			$544.00	$56.00	$80.00	$680.00
	Pick up supplies Week 1: Tue, 1/5, 11:00am-12:00pm and Wed, 1/6, 5:30-7:30pm.							
ONL NCT	**ART-131-02** A. SCHROER	**350615**			$544.00	$56.00	$80.00	$680.00
	Pick up supplies Week 1: Tue, 1/5, 11:00am-12:00pm and Wed, 1/6, 5:30-7:30pm.							
OC NCT	**ART-131-03** R. KALMAN	**350616**	**MW**	**9-11:50 AM**	$544.00	$56.00	$80.00	$680.00

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	**ART-161-01** C. GIFFEN	**354878**	**TTH**	**1-3:50 PM**	$544.00	$56.00	$150.00	$750.00

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	**ART-162-01** C. GIFFEN	**354879**	**TTH**	**1-3:50 PM**	$544.00	$56.00	$150.00	$750.00

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

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

Recommended Prerequisites: WR-121Z

ONL NCT	**ART-205-01** J. SIMONE	**350228**			$544.00	$56.00	$0.00	$600.00

ART-232 LIFE DRAWING (FIGURE EMPHASIS), 4 CREDITS

Develop drawing skills, tools, materials, techniques, elements of composition; line, gesture, and value. Students work from direct observation and description of the figure (clothed and nude) describing volume and form on the two-dimensional plane. Assignments include drawing, assigned readings and group critiques of drawing projects.

Prerequisites: ART-131 or Student Petition

OC NCT	**ART-232-01** R. KALMAN	**350620**	**MW**	**1-3:50 PM**	$544.00	$56.00	$80.00	$680.00

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 NCT	**ART-250-01** N. BRODNICKI	**350626**	**TTH**	**1-3:50 PM**	$544.00	$56.00	$95.00	$695.00
OC NCT	**ART-250-02** N. WARRENS	**350629**	**TTH**	**6-8:50 PM**	$544.00	$56.00	$95.00	$695.00

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 NCT	**ART-252-01** N. BRODNICKI	**350634**	**TTH**	**9-11:50 AM**	$544.00	$56.00	$95.00	$695.00

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 or ART-252, or Student Petition

OC NCT	**ART-253-01** N. BRODNICKI	**350639**	**TTH**	**1-3:50 PM**	$544.00	$56.00	$95.00	$695.00
OC NCT	**ART-253-02** N. WARRENS	**350642**	**TTH**	**6-8:50 PM**	$544.00	$56.00	$95.00	$695.00

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 NCT	**ART-255-01** N. BRODNICKI	**350643**	**TTH**	**9-11:50 AM**	$544.00	$56.00	$95.00	$695.00

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	**ART-261-01** C. GIFFEN	**354880**	**TTH**	**1-3:50 PM**	$544.00	$56.00	$80.00	$680.00

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 NCT	**ART-262-01** S. ELIOT	**350646**			$544.00	$56.00	$80.00	$680.00

ART-282 PAINTING: THE FIGURE/BEGINNING, 4 CREDITS

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

Distance Education Notification:
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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
NCT: No-Cost Text

Introduces basic painting tools, materials, techniques, and elements of composition, gesture, value, color and space. Students work from direct observation and description of the figure (clothed and nude) describing volume and form on the two-dimensional plane. Course includes painting, readings and group critiques.

Prerequisites: ART-131 or Student Petition

Course No	Course Title, Credits	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC NCT	ART-282-01	350650		TTH	9-11:50 AM				
	A. SCHROER					$544.00	$56.00	$110.00	$710.00

ART-285 PAINTING: THE FIGURE/INTERMEDIATE, 4 CREDITS

Learn intermediate painting tools, materials, techniques, and elements of composition, gesture, value, color and space. Students work from direct observation and description of the figure (clothed and nude) describing volume and form on the two-dimensional plane. Course includes painting, readings and group critiques.

Prerequisites: ART-282 or Student Petition

Course No	Course Title, Credits	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC NCT	ART-285-01	350654		TTH	9-11:50 AM				
	A. SCHROER					$544.00	$56.00	$110.00	$710.00

ART-292 SCULPTURE (FIGURE EMPHASIS), 4 CREDITS

Explores the human form using traditional and contemporary sculpture techniques and concepts. Use of clay, armatures and other sculpture media will be explored. Sculptural design, concepts and craftsmanship will be explored through projects, lectures, and critiques. Students will work from direct observation and source materials (nude and abstract). The human figure and other life forms in the history of sculpture will be examined.

Course No	Course Title, Credits	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC NCT	ART-292-01	350656		MW	1-3:50 PM				
	K. SIMMONS					$544.00	$56.00	$80.00	$680.00

Auto Body/Collision Repair and Refinishing

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

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.

Course No	Course Title, Credits	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC NCT	AB-112-01	350532		F	8-12:20 PM				
	C. DAHLSRUD-RIVERA J. PHELPS					$272.00	$28.00	$230.00	$530.00

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

Course No	Course Title, Credits	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC NCT	AB-113-01	350534		MT	7-12:20 PM				
	M. GRIFFITH M. HOUSE					$816.00	$84.00	$337.00	$1,237.00

AB-123 COLLISION REPAIR WELDING II, 2 CREDITS

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

Prerequisites: AB-112

Course No	Course Title, Credits	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC NCT	AB-123-01	350538		F	8-12:20 PM				
	C. DAHLSRUD-RIVERA J. PHELPS					$272.00	$28.00	$158.00	$458.00

AB-133 COLLISION REPAIR II/STRUCTURAL, 6 CREDITS

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

Prerequisites: AB-113

Course No	Course Title, Credits	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC NCT	AB-133-01	350540		MT	7-12:20 PM				
	M. GRIFFITH M. HOUSE					$816.00	$84.00	$337.00	$1,237.00

AB-150 COLLISION REPAIR COMPUTERIZED ESTIMATING - AUDATEX, 2 CREDITS

Provides detailed instruction in the use of modern computerized estimating systems in the collision repair field. Focus is on Audatex software.

Prerequisites: AB-149

Course No	Course Title, Credits	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC NCT	AB-150-01	350541		T	1:30 -5:20 PM				
	A. YAGER-ROUNDS					$272.00	$28.00	$154.00	$454.00

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

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

Prerequisites: AB-133

Course No	Course Title, Credits	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC NCT	AB-222-01	350542		MT	7-12:20 PM				
	M. GRIFFITH M. HOUSE					$816.00	$84.00	$337.00	$1,237.00

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

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

Prerequisites: AB-222

Course No	Course Title, Credits	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC NCT	AB-224-01	350545		MT	7-12:20 PM				
	M. GRIFFITH M. HOUSE					$816.00	$84.00	$337.00	$1,237.00

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

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

Prerequisites: AB-224

Course No	Course Title, Credits	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC NCT	AB-226-01	350548		MT	7-12:20 PM				
	M. GRIFFITH M. HOUSE					$816.00	$84.00	$337.00	$1,237.00

AB-235 COLLISION REPAIR WELDING III, 2 CREDITS

Aluminum welding for collision damage repair. Gas Metal Arc Welding (GMAW) and Gas Metal Arc Welding (GMAW) on silicon bronze are learned, along with related welding techniques and equipment/safety procedures.

Prerequisites: AB-123

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
NCT: No-Cost Text

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 NCT	**AB-235-01** C. DAHLSRUD-RIVERA J. PHELPS	**350550**	**F**	$272.00	$28.00	**8-12:20 PM** $170.00	$470.00

AB-280 COLLISION REPAIR/CWE, 2-6 CREDITS (VAR)

Cooperative work experience. Work-based learning experience in an auto body repair shop. Required: Student Petition.

Corequisites: CWE-281

OC NCT	**AB-280-01** M. HOUSE	**350553**		$816.00	$84.00	$45.00	$945.00V

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

ABR-125 COLLISION REPAIR/REFINISHING I, 6 CREDITS

Covers shop safety, fire prevention, selection and use of paint products, abrasives, fillers, basic application of primers, sealers, and top coats.

Prerequisite or Corequisite: AB-112 and AB-113

OC NCT	**ABR-125-01** M. GRIFFITH M. HOUSE	**350556**	**WTH**	$816.00	$84.00	**7-12:20 PM** $337.00	$1,237.00

ABR-127 COLLISION REPAIR/REFINISHING II, 6 CREDITS

Application of solvent and waterborne finishes, including spot repairs, color matching, complete refinishing, and problem solving. Introduction to computerized color information retrieval and mixing.

Prerequisites: ABR-125

OC NCT	**ABR-127-01** M. GRIFFITH M. HOUSE	**350558**	**WTH**	$816.00	$84.00	**7-12:20 PM** $337.00	$1,237.00

ABR-129 COLLISION REPAIR/REFINISHING III, 6 CREDITS

Application of solvent and waterborne basecoats and tri-coats and urethane topcoats, using both foreign and domestic refinish systems. Includes complete refinishing, spot and panel painting, color matching and problem solving.

Prerequisites: ABR-127

OC NCT	**ABR-129-01** M. GRIFFITH M. HOUSE	**350559**	**WTH**	$816.00	$84.00	**7-12:20 PM** $337.00	$1,237.00

ABR-225 PRODUCTION SHOP TECHNIQUES, 6 CREDITS

Designed for students who wish to gain additional hands-on experience in refinishing, using the most up-to-date methods and materials.

Prerequisites: ABR-129

OC NCT	**ABR-225-01** M. GRIFFITH M. HOUSE	**350562**	**WTH**	$816.00	$84.00	**7-12:20 PM** $337.00	$1,237.00

ABR-227 RESTORATION PRACTICES, 6 CREDITS

Designed for students who wish to broaden their skills base in the upper end refinish market. Projects will be considerably more challenging, with standards and expectations set higher.

Prerequisites: ABR-225

OC NCT	**ABR-227-01** M. GRIFFITH M. HOUSE	**350565**	**WTH**	$816.00	$84.00	**7-12:20 PM** $337.00	$1,237.00

Automotive Service Technology

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

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

AM-131 SUSPENSION SYSTEMS, 5 CREDITS

In this theory and lab course, students will learn the design, construction, service, and repair of front and rear suspension systems, wheels and tires, steering systems, and alignments. Students will service and repair these systems in the hands-on lab.

Prerequisites: AM-101 with a C or better

OC	**AM-131-01** D. BLACKMON Meets: 1/11-2/12.	**350571**	**MTWTH**	$680.00	$70.00	**1-5:50 PM** $211.00	$961.00
OC	**AM-131-02** D. BLACKMON Meets: 2/15-3/19.	**350572**	**MTWTH**	$680.00	$70.00	**1-5:50 PM** $211.00	$961.00

AM-133 ENGINE SYSTEMS, 5 CREDITS

This course is designed to provide students with the entry-level skills necessary to repair automobile engines. Includes general engine diagnosis; cylinder head and valve train diagnosis and repair; engine block assembly diagnosis and repair; and lubrication and cooling systems diagnosis and repair.

Prerequisites: AM-101 with a C or better

Recommended Corequisite: AM-131

OC	**AM-133-01** J. WIMP Meets: 1/11-2/12.	**350574**	**MTWTH**	$680.00	$70.00	**1-5:50 PM** $211.00	$961.00
OC	**AM-133-02** J. WIMP Meets: 2/15-3/19.	**350575**	**MTWTH**	$680.00	$70.00	**1-5:50 PM** $211.00	$961.00

AM-242 ENGINE PERFORMANCE II, 5 CREDITS

This course is the second of two engine performance courses. In this course the students will receive training in advanced lab scope diagnostics, advanced level scan tool usage, power train reprogramming and the opportunity to do real world diagnostics. On board diagnostics 2 (OBD2) readiness monitors and how they work will be discussed. Training and practical application of all monitored systems of the OBD2 system will be performed.

Prerequisites: AM-142

OC	**AM-242-01** N. ROBERTS Meets: 1/4-2/4.	**350576**	**MTWTH**	$680.00	$70.00	**7-11:50 AM** $211.00	$961.00

AM-245 AUTOMATIC TRANSMISSION SYSTEMS, 5 CREDITS

This course covers the theory and physical description of the automatic transmission. The student will have the opportunity to acquire practical experience and learn the proper procedures for overhaul, service, and diagnosis of an automatic transmission.

Prerequisites: AM-129

OC	**AM-245-02** N. ROBERTS Meets: 2/8-3/12.	**350584**	**MTWTH**	$680.00	$70.00	**7-11:50 AM** $174.00	$924.00

AM-280 AUTO MECHANICS/CWE, 1-6 CREDITS (VAR)

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

Corequisites: CWE-281

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

Distance Education Notification:
ONL: Online Only
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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
NCT: No-Cost Text

Course No	Course Title, Credits	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC NCT	**AM-280-01**	**350586**							
	N. ROBERTS					$816.00	$84.00	$45.00	$945.00V
	Required: Student Petition. Corequisite: Take the following CWE-281-06.								

Biology

BI-101 GENERAL BIOLOGY; CELLULAR BIOLOGY, 4 CREDITS

An inquiry-based laboratory course focusing on cellular biology, genetics, epigenetics, biotechnology and natural selection. Class uses student centered activities in a collaborative learning environment to enhance appreciation of the biological world.

Corequisites: BI-101L

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

OC LCT	**BI-101-01**	**350671**	**MW**		**1-2:20 PM**				
	E. DEBEY					$544.00	$56.00	$55.00	$655.00
	Corequisite: Take the following BI-101L-01.								
ONL LCT	**BI-101-10**	**350675**							
	E. DEBEY					$544.00	$56.00	$55.00	$655.00
	Corequisite: Take the following BI-101L-10.								
ONL	**BI-101-11**	**350677**							
	T. BLACKWELL					$544.00	$56.00	$55.00	$655.00
	Corequisite: Take the following BI-101L-11.								

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

Lab course for BI-101

Corequisites: BI-101

OC	**BI-101L-01**	**350678**	**MW**		**2:30 -3:50 PM**				
	E. DEBEY					$0.00	$0.00	$0.00	$0.00
	Corequisite: Take the following BI-101-01.								
ONL	**BI-101L-10**	**350680**							
	E. DEBEY					$0.00	$0.00	$0.00	$0.00
	Corequisite: Take the following BI-101-10.								
ONL	**BI-101L-11**	**350682**							
	T. BLACKWELL					$0.00	$0.00	$0.00	$0.00
	Corequisite: Take the following BI-101-11.								

BI-102 GENERAL BIOLOGY; ANIMAL SYSTEMS, 4 CREDITS

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	**BI-102-01**	**350683**	**MW**		**1-2:20 PM**				
	S. SOLL					$544.00	$56.00	$55.00	$655.00
	Corequisite: Take 1 of the following BI-102L-01, BI-102L-02.								
OC	**BI-102-02**	**350688**	**TTH**		**9:20 -10:40 AM**				
	S. SOLL					$544.00	$56.00	$55.00	$655.00
	Corequisite: Take 1 of the following BI-102L-01, BI-102L-02.								
ONL	**BI-102-10**	**350693**							
	S. SOLL					$544.00	$56.00	$55.00	$655.00
	Corequisite: Take the following BI-102L-10.								
ONL	**BI-102-11**	**350696**							
	K. OSTLUND					$544.00	$56.00	$55.00	$655.00
	Corequisite: Take the following BI-102L-11.								

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

Lab course for BI-102

Corequisites: BI-102

OC	**BI-102L-01**	**350698**	**MW**		**2:30 -3:50 PM**				
	S. SOLL					$0.00	$0.00	$0.00	$0.00
	Corequisite: Take 1 of the following BI-102-01, BI-102-02.								
OC	**BI-102L-02**	**350704**	**TTH**		**10:50 -12:10 PM**				
	S. SOLL					$0.00	$0.00	$0.00	$0.00
	Corequisite: Take 1 of the following BI-102-01, BI-102-02.								
ONL	**BI-102L-10**	**350712**							
	S. SOLL					$0.00	$0.00	$0.00	$0.00
	Corequisite: Take the following BI-102-10.								
ONL	**BI-102L-11**	**350715**							
	K. OSTLUND					$0.00	$0.00	$0.00	$0.00
	Corequisite: Take the following BI-102-11.								

BI-112 GENERAL BIOLOGY FOR HEALTH SCIENCES, 4 CREDITS

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-231Z and BI-234.

Corequisites: BI-112L

Recommended Corequisite: CH-112Z

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

OC	**BI-112-01**	**350716**	**TTH**		**11-12:20 PM**				
	S. KELSEY					$544.00	$56.00	$55.00	$655.00
	Corequisite: Take 1 of the following BI-112L-01, BI-112L-02.								
ONL	**BI-112-02**	**350723**							
	K. OSTLUND					$544.00	$56.00	$55.00	$655.00
	Corequisite: Take the following BI-112L-03, BI-112L-04.								
HAR	**BI-112-10**	**350719**	**MW**		**9-10:20 AM**				
	P. JONES					$544.00	$56.00	$55.00	$655.00
	Corequisite: Take the following BI-112L-10.								

BI-112L GENERAL BIOLOGY FOR HEALTH SCIENCES LAB, 0 CREDIT

Lab course for BI-112

Corequisites: BI-112

OC	**BI-112L-01**	**350727**	**T**		**1-3:50 PM**				
	T. BLACKWELL					$0.00	$0.00	$0.00	$0.00
	Corequisite: Take the following BI-112-01.								
OC	**BI-112L-02**	**350734**	**TH**		**8-10:50 AM**				
	TBA					$0.00	$0.00	$0.00	$0.00
	Corequisite: Take the following BI-112-01.								
HAR	**BI-112L-03**	**350739**	**W**		**6-8:50 PM**				
	K. OSTLUND					$0.00	$0.00	$0.00	$0.00
	Corequisite: Take the following BI-112-02.								
OC	**BI-112L-04**	**350740**	**T**		**6-8:50 PM**				
	K. OSTLUND					$0.00	$0.00	$0.00	$0.00
	Corequisite: Take the following BI-112-02.								
HAR	**BI-112L-10**	**350737**	**MW**		**10:30 -11:50 AM**				
	P. JONES					$0.00	$0.00	$0.00	$0.00
	Corequisite: Take the following BI-112-10.								

BI-120 INTRODUCTION TO HUMAN ANATOMY AND PHYSIOLOGY, 4 CREDITS

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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LCT: Low-Cost Text
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Course No | Course Title, Credits | Section No / Instructor | Crs Reg. | Days (M,T,W,TH.F,S,SU) | Time | Tuition | Fee | Crs. Fee | Total

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.

Corequisites: BI-120L

HAR	BI-120-01	350741	MW		1-2:20 PM			
	P. JONES			$544.00	$56.00	$55.00	$655.00	

BI-120L INTRODUCTION TO HUMAN ANATOMY AND PHYSIOLOGY LAB, 0 CREDIT

Lab course for BI-120

Corequisites: BI-120

HAR	BI-120L-01	350746	MW		2:30 -3:50 PM			
	P. JONES			$0.00	$0.00	$0.00	$0.00	

BI-165D NATURAL HISTORY OF THE WESTERN DESERTS, 4 CREDITS

A lecture and lab course studying plants, animals, geology, ecology and environmental issues of western deserts. This intensive nine-day field course travels through western desert regions. Required: Student Petition.

Corequisites: BI-165DL

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

Recommended: One term of college-level science

OC	BI-165D-01	350750	MTWTHFSSU M		6-7:20 PM			
	A. KOTASH			$544.00	$56.00	$500.00	$1,100.00	
	Required: Student Petition. Students will travel to Death Valley to study desert processes during Spring Break (3/19/27-3/27/27). In addition, 4 meetings are required. Meeting Dates: 1/11, 2/1, 2/24. Individual meetings- 3/4. Contact Jennifer Bown (jenb@clackamas.edu) for more information. Required Fee: $500.							

BI-165DL NATURAL HISTORY OF THE WESTERN DESERTS LAB, 0 CREDIT

Lab course for BI-165D

Corequisites: BI-165D

OFF	BI-165DL-01	350753	MTWTHFSSU					
	D. HUFFORD			$0.00	$0.00	$0.00	$0.00	
	Required: Student Petition. Students will travel to Death Valley to study desert processes during Spring Break (3/19/27-3/27/27). Contact Jennifer Bown (jenb@clackamas.edu) for more information.							

BI-204 ELEMENTARY MICROBIOLOGY, 4 CREDITS

A lab class with environmental focus. This class explores microscopic life and its importance in the environment and in industry. We also learn about the causes and implications of waterborne pathogens. Labs will provide practice with aseptic techniques and introduce tools and current methodologies used in the study of microorganisms.

OC	BI-204-01	350758	MW		9-11:50 AM			
	J. NURMI			$544.00	$56.00	$50.00	$650.00	
	Remote options available with this section.							
OC	BI-204-02	350761	TTH		9-11:50 AM			
	J. NURMI			$544.00	$56.00	$50.00	$650.00	

BI-216 GENERAL ZOOLOGY, 4 CREDITS

A lecture and lab course covering the maintenance of the cellular, tissue, & organ levels of invertebrates, evolution of animal systems and the diversity of the invertebrate animal phyla.

Corequisites: BI-216L

Prerequisites: MTH-095 with a C or better or placement in MTH-111Z

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

OC	BI-216-01	350766	MW		10:30 -11:50 AM			
	M. PLUMMER			$544.00	$56.00	$55.00	$655.00	

BI-216L GENERAL ZOOLOGY LAB, 0 CREDIT

Lab course for BI-216

Corequisites: BI-216

OC	BI-216L-01	350769	W		1-3:50 PM			
	M. PLUMMER			$0.00	$0.00	$0.00	$0.00	

BI-222LZ PRINCIPLES OF BIOLOGY: ORGANISMS LAB, 0 CREDIT

Lab course for BI-222Z

Corequisites: BI-222Z

OC	BI-222LZ-01	350770	TH		9-11:50 AM			
	T. BLACKWELL			$0.00	$0.00	$0.00	$0.00	
OC	BI-222LZ-02	350772	TH		1-3:50 PM			
	T. BLACKWELL			$0.00	$0.00	$0.00	$0.00	

BI-222Z PRINCIPLES OF BIOLOGY: ORGANISMS, 5 CREDITS

Explores fundamental biological concepts and theories about the structure and function of diverse organisms (including plants and animals), evolution and development, transformation of energy and matter, and body systems at a multicellular organismal level. Intended for science majors.

Corequisites: BI-222LZ

Prerequisite or Corequisite: CH-105 and CH-125, or CH-222Z and CH-228Z

OC	BI-222Z-01	350773	MW		8-9:50 AM			
	T. BLACKWELL			$680.00	$70.00	$55.00	$805.00	
ONL	BI-222Z-02	350777						
	T. BLACKWELL			$680.00	$70.00	$55.00	$805.00	

BI-231LZ HUMAN ANATOMY AND PHYSIOLOGY I LAB, 0 CREDIT

Lab course for BI-231Z

Corequisites: BI-231Z

OC	BI-231LZ-01	350790	TH		2:30 -5:20 PM			
	J. GALLEGOS			$0.00	$0.00	$0.00	$0.00	
	Corequisite: Take 1 of the following BI-231Z-01, BI-231Z-02.							
OC	BI-231LZ-02	350796	T		3:30 -6:20 PM			
	J. GALLEGOS			$0.00	$0.00	$0.00	$0.00	
	Corequisite: Take 1 of the following BI-231Z-01, BI-231Z-02.							
OC	BI-231LZ-10	350800	TH		6:30 -9:20 PM			
	J. GALLEGOS			$0.00	$0.00	$0.00	$0.00	
	Corequisite: Take the following BI-231Z-10.							

BI-231Z HUMAN ANATOMY AND PHYSIOLOGY I, 4 CREDITS

Examines the structure and function of the human body through a body systems approach. Explores anatomy and physiology of the integumentary, skeletal and muscular systems at the relevant levels of biological organization (chemical, cellular, tissue, organ, and organ system). Covers neurophysiology and excitable membranes. Includes foundational aspects such as anatomical terminology and homeostasis. This course includes a laboratory component.

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Prerequisites: BI-112 (preferred), or BI-101 and BI-102, or BI-221Z
Corequisites: BI-231LZ
Prerequisites: CH-112Z (preferred), or CH-104Z, CH-124Z, CH-105, and CH-125, or CH-221Z, CH-227Z, CH-222Z and CH-228Z

OC HYB	BI-231Z-01	350778	M		2:30 -5:00 PM				
	B. KOP			$544.00	$56.00	$55.00	$655.00		
	Corequisite: Take 1 of the following BI-231LZ-01, BI-231LZ-02.								
OC HYB	BI-231Z-02	350785	T		1-2:50 PM				
	M. PATTERSON			$544.00	$56.00	$55.00	$655.00		
	Corequisite: Take 1 of the following BI-231LZ-01, BI-231LZ-02.								
OC HYB	BI-231Z-10	350788	T		6:30 -9:00 PM				
	B. KOP			$544.00	$56.00	$55.00	$655.00		
	Corequisite: Take the following BI-231LZ-10.								

BI-232LZ HUMAN ANATOMY AND PHYSIOLOGY II LAB, 0 CREDIT

Lab course for BI-232Z
Corequisites: BI-232Z

OC	BI-232LZ-01	350820	M		1-3:50 PM				
	M. PATTERSON			$0.00	$0.00	$0.00	$0.00		
	Corequisite: Take 1 of the following BI-232Z-01, BI-232Z-02.								
OC	BI-232LZ-02	350829	W		9-11:50 AM				
	E. DEBEY			$0.00	$0.00	$0.00	$0.00		
	Corequisite: Take 1 of the following BI-232Z-01, BI-232Z-02.								
HAR	BI-232LZ-10	350830	TTH		10:30 -11:50 AM				
	M. PATTERSON			$0.00	$0.00	$0.00	$0.00		
	Corequisite: Take the following BI-232Z-10.								
OC	BI-232LZ-11	350835	W		6:30 -9:20 PM				
	J. GALLEGOS			$0.00	$0.00	$0.00	$0.00		
	Corequisite: Take the following BI-232Z-11.								

BI-232Z HUMAN ANATOMY AND PHYSIOLOGY II, 4 CREDITS

Examines the structure and function of the human body through a body systems approach. Explores anatomy and physiology of the central and peripheral nervous, endocrine, and cardiovascular systems at the relevant levels of biological organization (chemical, cellular, tissue, organ, and organ system). Covers special senses and the autonomic nervous system. This course includes a laboratory component.

Prerequisites: BI-231Z with a C or better
Corequisites: BI-232LZ

OC HYB	BI-232Z-01	350802	M		10-11:50 AM				
	M. PATTERSON			$544.00	$56.00	$55.00	$655.00		
	Corequisite: Take 1 of the following BI-232LZ-01, BI-232LZ-02.								
OC HYB	BI-232Z-02	350813	T		2-4:30 PM				
	B. KOP			$544.00	$56.00	$55.00	$655.00		
	Corequisite: Take 1 of the following BI-232LZ-01, BI-232LZ-02.								
HAR	BI-232Z-10	350815	TTH		9-10:20 AM				
	M. PATTERSON			$544.00	$56.00	$55.00	$655.00		
	Corequisite: Take the following BI-232LZ-10.								
OC	BI-232Z-11	350817	M		6:30 -9:20 PM				
	B. KOP			$544.00	$56.00	$55.00	$655.00		
	Corequisite: Take the following BI-232LZ-11.								

BI-233LZ HUMAN ANATOMY AND PHYSIOLOGY III LAB, 0 CREDIT

Lab course for BI-233Z
Corequisites: BI-233Z

OC	BI-233LZ-01	350846	T		11:30 -2:20 PM				
	J. GALLEGOS			$0.00	$0.00	$0.00	$0.00		

BI-233Z HUMAN ANATOMY AND PHYSIOLOGY III, 4 CREDITS

Examines the structure and function of the human body through a body systems approach. Explores anatomy and physiology of the respiratory, digestive, immune, lymphatic, urinary, and reproductive systems at the relevant levels of biological organization (chemical, cellular, tissue, organ, and organ system). Covers acid-base balance and human development. This course includes a laboratory component.

Prerequisites: BI-232Z with a C or better
Corequisites: BI-233LZ

OC HYB	BI-233Z-01	350837	T		8:30 -10:50 AM				
	B. KOP			$544.00	$56.00	$55.00	$655.00		

BI-234 INTRODUCTORY MICROBIOLOGY, 4 CREDITS

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

Prerequisites: BI-101, BI-112 or BI-221Z
Corequisites: BI-234L
Prerequisites: CH-104Z and CH-124Z, or CH-112Z, or CH-221Z and CH-227Z

OC LCT	BI-234-01	350856	TTH		6-7:20 PM				
	M. PLUMMER			$544.00	$56.00	$55.00	$655.00		
	Corequisite: Take the following BI-234L-01.								
ONL LCT	BI-234-02	350858							
	A. KAPILA			$544.00	$56.00	$170.00	$770.00		
	Corequisite: Take the following BI-234L-02.								

BI-234L INTRODUCTORY MICROBIOLOGY LAB, 0 CREDIT

Lab course for BI-234
Corequisites: BI-234

OC	BI-234L-01	350863	TTH		7:30 -8:50 PM				
	M. PLUMMER			$0.00	$0.00	$0.00	$0.00		
	Corequisite: Take the following BI-234-01.								
ONL	BI-234L-02	350864							
	A. KAPILA			$0.00	$0.00	$0.00	$0.00		
	Corequisite: Take the following BI-234-02.								

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	BA-101Z-01	350674	TTH		10-11:50 AM				
	J. EICHENBERGER			$544.00	$56.00	$5.00	$605.00		
OC HYB	BA-101Z-02	350686	T		1-2:50 PM				
	J. EICHENBERGER			$544.00	$56.00	$5.00	$605.00		
OC HYB	BA-101Z-03	350689	TH		1-2:50 PM				
	J. EICHENBERGER			$544.00	$56.00	$5.00	$605.00		
ONL	BA-101Z-04	350692							
	S. RAHN			$544.00	$56.00	$129.99	$729.99		
	Online textbook included in section fees.								

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ONL	**BA-101Z-05** 350694 J. AMAN Online textbook included in section fees.			$544.00	$56.00	$129.99	$729.99
ONL	**BA-101Z-06** 350697 K. HEINIG Online textbook included in section fees.			$544.00	$56.00	$61.24	$661.24

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 Prerequisite or Corequisite: BA-101Z and BA-131
Recommended Prerequisites: Placement in MTH-020

OC	**BA-111-01** 350699 **W** **1-3:50 PM** J. SAN-CLAIRE Online textbook included in section fees.			$408.00	$42.00	$144.99	$594.99
ONL	**BA-111-02** 350702 J. SAN-CLAIRE Online textbook included in section fees.			$408.00	$42.00	$144.99	$594.99

BA-112 GENERAL ACCOUNTING II, 4 CREDITS

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

ONL	**BA-112-01** 350703 J. SAN-CLAIRE Online textbook included in section fees.			$544.00	$56.00	$144.99	$744.99

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	**BA-119-01** 350705 C. PLOWMAN			$272.00	$28.00	$5.00	$305.00
ONL	**BA-119-02** 350707 C. PLOWMAN			$272.00	$28.00	$5.00	$305.00

BA-120 PROJECT MANAGEMENT FUNDAMENTALS, 4 CREDITS

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

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

ONL	**BA-120-01** 350709 S. RAHN			$544.00	$56.00	$5.00	$605.00

BA-125 PROJECT MANAGEMENT PREP, 5 CREDITS

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

Prerequisite or Corequisite: BA-120

OC HYB	**BA-125-01** 354940 **TH** **6-8:20 PM** S. RAHN			$680.00	$70.00	$5.00	$755.00

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.

Prerequisites: BA-120
Prerequisite or Corequisite: BA-125

ONL	**BA-127-01** 350711 S. RAHN			$544.00	$56.00	$5.00	$605.00

BA-128 PROJECT MANAGEMENT: LEADERSHIP STRATEGIES, 4 CREDITS

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

ONL NCT	**BA-128-01** 354941 C. CHATTERTON			$544.00	$56.00	$20.00	$620.00

BA-131 INTRODUCTION TO BUSINESS COMPUTING, 4 CREDITS

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

Required: Access to the following: personal computer or laptop with MS Windows Operating System (Windows 11), Office 365 OR MS Office 2024, internet access (including email), or access to the CCC Dye Academic Computer Lab, or a loaner laptop from the department. Note: a Chromebook cannot be used for this course
Recommended Prerequisites: WRD-090 or placement in WRD-098

OC	**BA-131-01** 350717 **TTH** **1-2:50 PM** F. MEYERS Office 2024 version is used. Online textbook included in section fees.			$544.00	$56.00	$139.24	$739.24
OC HYB	**BA-131-02** 350720 **TH** **10-11:50 AM** F. MEYERS Office 2024 version is used. Online textbook included in section fees.			$544.00	$56.00	$139.24	$739.24

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REM	**BA-131-03**	**350721**	**M** **6-8:20 PM**				
	M. SORRENTINO			$544.00	$56.00	$139.24	$739.24
	Office 2024 version is used. Online textbook included in section fees.						
ONL	**BA-131-04**	**350724**					
	D. HEINIG			$544.00	$56.00	$139.24	$739.24
	Office 2024 version is used. Online textbook included in section fees.						
ONL	**BA-131-05**	**350726**					
	D. HEINIG			$544.00	$56.00	$139.24	$739.24
	Office 2024 version is used. Online textbook included in section fees.						
ONL	**BA-131-06**	**350728**					
	F. MEYERS			$544.00	$56.00	$139.24	$739.24
	Office 2024 version is used. Online textbook included in section fees.						

BA-169Z DATA ANALYSIS USING MICROSOFT EXCEL, 4 CREDITS

Covers Microsoft Excel software skills necessary for evidence-based problem-solving, including workbook editing, formula creation, charting, and pivot tables. Emphasizes hands-on learning using Excel functions to perform data analysis to enhance decision-making.

Prerequisites: BA-131 or CS-120 or higher or placement into BA-169Z

OC	**BA-169Z-01**	**350662**	**TTH** **10-11:50 AM**				
	D. CARINO			$544.00	$56.00	$95.98	$695.98
	Online textbook included in section fees.						
ONL	**BA-169Z-30**	**350667**					
	D. CARINO			$544.00	$56.00	$95.98	$695.98
	Online textbook included in section fees.						

BA-177 PAYROLL ACCOUNTING, 3 CREDITS

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.

Prerequisites: BA-111 or BA-211Z

Recommended Prerequisites: BA-131 or some knowledge of Excel

ONL	**BA-177-01**	**350729**					
	I. SETO			$408.00	$42.00	$107.50	$557.50
	Online textbook included in section fees.						

BA-205 BUSINESS COMMUNICATIONS WITH TECHNOLOGY, 4 CREDITS

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

Recommended Prerequisites: BA-131 and WR-121Z

ONL	**BA-205-01**	**350731**					
	M. MOISO			$544.00	$56.00	$78.01	$678.01
	Online textbook included in section fees.						

BA-206 MANAGEMENT FUNDAMENTALS, 4 CREDITS

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.

Prerequisites: WRD-090 or placement in WRD-098

Recommended Prerequisites: BA-101Z and BA-251

ONL NCT	**BA-206-01**	**350735**					
	J. AMAN			$544.00	$56.00	$5.00	$605.00

BA-211Z PRINCIPLES OF FINANCIAL ACCOUNTING, 4 CREDITS

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.

Prerequisites: BA-101Z, and BA-131 or BA-169Z

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

OC HYB	**BA-211Z-01**	**350745**	**W** **10-11:50 AM**				
	T. FRANK			$544.00	$56.00	$134.99	$734.99
	Online textbook included in section fees.						
ONL	**BA-211Z-02**	**350754**					
	J. SAN-CLAIRE			$544.00	$56.00	$134.99	$734.99
	Online textbook included in section fees.						

BA-213Z PRINCIPLES OF MANAGERIAL ACCOUNTING, 4 CREDITS

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.

Prerequisites: BA-211Z with a C or better

ONL	**BA-213Z-01**	**350755**					
	J. SAN-CLAIRE			$544.00	$56.00	$134.99	$734.99
	Online textbook included in section fees.						
REM	**BA-213Z-02**	**354942**	**T** **1-2:50 PM**				
	I. SETO			$544.00	$56.00	$134.99	$734.99
	Online textbook included in section fees.						

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: MTH-050 or higher and WRD-098

ONL	**BA-218-01**	**350764**					
	J. AMAN			$544.00	$56.00	$134.99	$734.99
	Online textbook included in section fees.						

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	**BA-223-01**	**350767**					
	K. HEINIG			$544.00	$56.00	$49.88	$649.88
	Online textbook included in section fees.						

BA-224 HUMAN RESOURCE MANAGEMENT, 4 CREDITS

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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 **BA-224-01** **350774**
M. MOISO $544.00 $56.00 $61.24 $661.24
Online textbook included in section fees.

BA-226Z INTRODUCTION TO BUSINESS LAW, 4 CREDITS

Provides a comprehensive overview of U.S. business law, including the legal system, contracts, torts, intellectual property, agency, employment, and business organization forms. Emphasizes practical legal knowledge and explores how laws impact business operations, with a focus on risk management, contract disputes, business formation, and compliance with government regulation. Introduces legal challenges in business through real cases and legal terminology.

ONL NCT **BA-226Z-01** **350779**
M. MOISO $544.00 $56.00 $5.00 $605.00

ONL NCT **BA-226Z-02** **350783**
M. MOISO $544.00 $56.00 $5.00 $605.00

BA-239 ADVERTISING, 4 CREDITS

Emphasizes a strategic and integrated approach to promotion where traditional and non-traditional techniques of promotion are explored. The relationship and role of advertising to marketing will be stressed throughout the course.

Recommended Prerequisites: BA-101Z, and WRD-090 or placement in WRD-098

ONL **BA-239-01** **350786**
J. EICHENBERGER $544.00 $56.00 $5.00 $605.00

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

ONL **BA-240-01** **354935**
J. AMAN $544.00 $56.00 $144.99 $744.99
Online textbook included in section fees.

BA-251 SUPERVISORY MANAGEMENT, 3 CREDITS

Addresses the role and responsibilities of the first-line supervisor or manager. Includes planning and controlling, dealing with change, performance management, leadership, decision-making, communication, and managing teams.

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

ONL **BA-251-01** **350789**
J. AMAN $408.00 $42.00 $49.88 $499.88
Online textbook included in section fees.

BA-256 INCOME TAX ACCOUNTING, 4 CREDITS

Detailed review of the federal tax structure, as it relates to the preparation of individual tax returns, including those with business and investment activities. This course briefly overviews corporate tax returns.

Prerequisites: BA-211Z or financial accounting experience

ONL **BA-256-01** **350795**
L. LEWIS $544.00 $56.00 $144.99 $744.99
Online textbook included in section fees.

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 NCT **BA-270-01** **350804**
C. CHATTERTON $544.00 $56.00 $5.00 $605.00

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 NCT **BA-280-01** **350806**
B. FORNEY $816.00 $84.00 $45.00 $945.00V
Required: Student Petition. Corequisite: Take the following CWE-281-06.

ONL NCT **BA-280-02** **350819**
S. RAHN $816.00 $84.00 $45.00 $945.00V
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.

OC HYB **BA-285-01** **350821** **T** **10-11:50 AM**
M. MOISO $544.00 $56.00 $49.88 $649.88
Online textbook included in section fees.

ONL **BA-285-02** **350823**
T. DANEL $544.00 $56.00 $49.88 $649.88
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 **BT-120-01** **350825**
S. SIMMONS $272.00 $28.00 $10.00 $310.00

ONL **BT-120-02** **350832**
S. SIMMONS $272.00 $28.00 $10.00 $310.00

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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	BT-122-01	350841				
	S. SIMMONS		$272.00	$28.00	$10.00	$310.00
ONL	BT-122-02	350850				
	S. SIMMONS		$272.00	$28.00	$10.00	$310.00

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	BT-124-01	350852				
	S. SIMMONS		$408.00	$42.00	$134.99	$584.99
	Online textbook included in section fees.					

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	BT-125-01	350854				
	S. SIMMONS		$408.00	$42.00	$134.99	$584.99
	Online textbook included in section fees.					

BT-150 MS WORD FOR BUSINESS & THE WORKPLACE, 4 CREDITS

This course provides a comprehensive introduction to Microsoft Word, progressing from beginning to intermediate skills essential for business and workplace applications. Students will learn to create, format, and edit professional documents. Emphasis will be placed on efficiency, accuracy, and professional presentation, preparing students to use Word effectively in an organizational setting. Hands-on exercises, real-world business scenarios, and projects will reinforce learning.

ONL	BT-150-01	354982				
	F. MEYERS		$544.00	$56.00	$0.00	$600.00
	Office 2024 version is used.					

BT-216 OFFICE PROCEDURES, 4 CREDITS

Applies critical thinking, problem solving, and collaborative learning skills and knowledge to business office operations. Operational areas include communications, technology, records management, safety, travel, meeting management, mail procedures, reprographics, and career planning.

Prerequisites: BA-131

ONL	BT-216-01	350855				
	B. FORNEY		$544.00	$56.00	$10.00	$610.00

Chemistry

CH-104SZ INTRODUCTION TO CHEMISTRY SEMINAR, 0 CREDIT

Seminar course for CH-104Z

Corequisites: CH-104Z and CH-124Z

OC	CH-104SZ-01	350879	TH		12-12:50 PM		
	N. DAS			$0.00	$0.00	$0.00	$0.00
	Each student is required 3 hours of lab time in DJ-242 per week. The available lab hours are W & F: 9 AM- 4 PM, TH 9 AM-8 PM For further information, please e-mail the instructor at george.burgess@clackamas.edu.						

CH-104Z INTRODUCTION TO CHEMISTRY, 4 CREDITS

Introduces principles of general chemistry including atoms, chemical formulas and equations, bonding, stoichiometry, acid/base chemistry, solutions, and unit conversion calculations. Does not equal a general chemistry course sequence. CH-104Z is the lecture component; CH-124Z is the laboratory component.

Corequisites: CH-124Z and CH-104SZ

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

OC	CH-104Z-01	353019	TBA				
	N. DAS			$544.00	$56.00	$0.00	$600.00
	Each student is required 3 hours of lab time in DJ-242 per week. The available lab hours are W & F: 9 AM- 4 PM, TH 9 AM-8 PM For further information, please e-mail the instructor at george.burgess@clackamas.edu.						

CH-105 INTRODUCTION TO CHEMISTRY II, 4 CREDITS

A lab course discussing heat; molecular and ionic interactions in solids, liquids, gases, and solutions; chemical reactions including acid-base, electron transfer, and equilibrium. CH-105 is the lecture component; CH-125 is the laboratory component.

Prerequisites: CH-104Z and CH-124Z

Corequisites: CH-125 and CH-105S

OC	CH-105-01	353418	MW		2-3:20 PM		
	X. DONG			$544.00	$56.00	$0.00	$600.00
	Each student is required 3 hours of lab time in DJ-242 per week. The available lab hours are W & F: 9 AM- 4 PM, TH 9 AM-8 PM For further information, please e-mail the instructor at george.burgess@clackamas.edu.						

CH-105S INTRODUCTION TO CHEMISTRY II SEMINAR, 0 CREDIT

Seminar course for CH-105

Corequisites: CH-105 and CH-125

OC	CH-105S-01	350888	TH		1-1:50 PM		
	X. DONG			$0.00	$0.00	$0.00	$0.00
	Each student is required 3 hours of lab time in DJ-242 per week. The available lab hours are W & F: 9 AM- 4 PM, TH 9 AM-8 PM For further information, please e-mail the instructor at george.burgess@clackamas.edu.						

CH-112Z CHEMISTRY FOR HEALTH PROFESSIONS, 4 CREDITS

A one quarter introduction to general, organic and biological chemistry, focusing on topics related to the health sciences including atoms, bonding, biomolecules, solution chemistry, chemical reactions, and functional group properties of organic molecules. This course is intended for pre-nursing and allied health students.

Campus Locations:
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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
NCT: No-Cost Text

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

Prerequisites: MTH-065 or MTH-098 with a C or better or placement in MTH-095

Prerequisites: WRD-090 or placement in WRD-098

Recommended Corequisite: BI-112

OC	**CH-112Z-01**	**353033**	**TTH**			**1-2:50 PM**	
	S. MCDONALD			$544.00	$56.00	$15.00	$615.00
OC HYB	**CH-112Z-02**	**353034**	**W**			**1-2:50 PM**	
	E. FRANCIS			$544.00	$56.00	$15.00	$615.00
OC HYB	**CH-112Z-03**	**353035**	**W**			**6-7:50 PM**	
	D. PAUL			$544.00	$56.00	$15.00	$615.00
HAR HYB	**CH-112Z-04**	**353036**	**TH**			**2-3:50 PM**	
	E. FRANCIS			$544.00	$56.00	$15.00	$615.00

CH-114 CHEMISTRY IN ART, 4 CREDITS

An introductory laboratory science course designed specifically for the non-science student. Offers a broad, non-quantitative descriptive survey of scientific principles relevant to art and art-related topics such as light, color, pigments, dyes, solubility, acidity, oxidation, and polymers. Emphasizes an interdisciplinary perspective on chemistry.

Corequisites: CH-114L

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

HAR	**CH-114-01**	**355013**	**TTH**			**9-10:20 AM**	
	E. FRANCIS			$544.00	$56.00	$50.00	$650.00

CH-114L CHEMISTRY IN ART LAB, 0 CREDIT

Lab course for CH-114

Corequisites: CH-114

HAR	**CH-114L-01**	**355014**	**TTH**			**10:30 -11:50 AM**	
	E. FRANCIS			$0.00	$0.00	$0.00	$0.00

CH-124Z INTRODUCTION TO CHEMISTRY LAB, 1 CREDIT

Experiments corresponding to the topics covered in CH-104Z. CH-124Z is the laboratory component; CH-104Z is the lecture course.

Corequisites: CH-104Z and CH-104SZ

OC	**CH-124Z-01**	**353020**	**TBA**				
	N. DAS			$136.00	$14.00	$50.00	$200.00
	Each student is required 3 hours of lab time in DJ-242 per week. The available lab hours are W & F: 9 AM- 4 PM, TH 9 AM-8 PM For further information, please e-mail the instructor at george.burgess@clackamas.edu.						

CH-125 INTRODUCTION TO CHEMISTRY II LAB, 1 CREDIT

Experiments corresponding to the topics covered in CH-105. CH-125 is the laboratory component; CH-105 is the lecture course.

Prerequisites: CH-104Z and CH-124Z

Corequisites: CH-105 and CH-105S

OC	**CH-125-01**	**353419**	**TBA**				
	X. DONG			$136.00	$14.00	$50.00	$200.00
	Each student is required 3 hours of lab time in DJ-242 per week. The available lab hours are W & F: 9 AM- 4 PM, TH 9 AM-8 PM For further information, please e-mail the instructor at george.burgess@clackamas.edu.						

CH-221SZ GENERAL CHEMISTRY I SEMINAR, 0 CREDIT

Seminar course for CH-221Z

Corequisites: CH-221Z and CH-227Z

OC	**CH-221SZ-01**	**350907**	**W**			**11:30 -12:20 PM**	
	S. MCDONALD			$0.00	$0.00	$0.00	$0.00
	Corequisite: Take the following CH-221Z-01, CH-227Z-01.						
OC	**CH-221SZ-10**	**350910**	**W**			**2-2:50 PM**	
	D. MYERS			$0.00	$0.00	$0.00	$0.00
	Corequisite: Take the following CH-221Z-10, CH-227Z-10.						
OC	**CH-221SZ-11**	**350911**	**W**			**1-1:50 PM**	
	R. KHALIFE			$0.00	$0.00	$0.00	$0.00
	Corequisite: Take the following CH-221Z-11, CH-227Z-11.						

CH-221Z GENERAL CHEMISTRY I, 4 CREDITS

Explores and applies principles and applications of chemistry. Emphasis on measurement, components of matter, atomic and molecular structure, quantitative relationships including foundational stoichiometry, and major classes of chemical reactions. CH-221Z is a lecture course; CH-227Z is the laboratory component.

Prerequisites: CH-104Z, CH-124Z, CH-105, and CH-125, or CH-150Z, with a C or better; or a year of high school chemistry within five academic years of beginning CH-221Z (passed all terms with C or higher)

Corequisites: CH-227Z and CH-221SZ

OC	**CH-221Z-01**	**350912**	**MW**			**10-11:20 AM**	
	S. MCDONALD			$544.00	$56.00	$0.00	$600.00
	Corequisite: Take the following CH-227Z-01, CH-221SZ-01.						
ONL	**CH-221Z-10**	**350914**					
	D. MYERS			$544.00	$56.00	$0.00	$600.00
	Corequisite: Take the following CH-221SZ-10, CH-227Z-10.						
ONL	**CH-221Z-11**	**350915**					
	R. KHALIFE			$544.00	$56.00	$0.00	$600.00
	Corequisite: Take the following CH-227Z-11, CH-221SZ-11.						

CH-222SZ GENERAL CHEMISTRY II SEMINAR, 0 CREDIT

Seminar course for CH-222Z

Corequisites: CH-222Z and CH-228Z

OC	**CH-222SZ-01**	**350916**	**W**			**11:30 -12:20 PM**	
	D. MYERS			$0.00	$0.00	$0.00	$0.00
	Corequisite: Take 2 of the following CH-222Z-01, CH-228Z-01, CH-228Z-02.						
OC	**CH-222SZ-02**	**350918**	**W**			**1-1:50 PM**	
	D. MYERS			$0.00	$0.00	$0.00	$0.00
	Corequisite: Take 2 of the following CH-222Z-01, CH-228Z-01, CH-228Z-02.						
OC	**CH-222SZ-10**	**350919**	**TH**			**6-6:50 PM**	
	J. DU BOULAY			$0.00	$0.00	$0.00	$0.00
	Corequisite: Take the following CH-222Z-10, CH-228Z-10.						
OC	**CH-222SZ-11**	**350921**	**F**			**1-1:50 PM**	
	R. KHALIFE			$0.00	$0.00	$0.00	$0.00
	Corequisite: Take the following CH-228Z-11, CH-222Z-11.						

CH-222Z GENERAL CHEMISTRY II, 4 CREDITS

Explores and applies principles presented in CH-221Z to the study of the solid, liquid, and gaseous states of matter. Principles of stoichiometry, thermochemistry, kinetics, and foundational equilibrium are explored and applied to the study of aqueous and gas-phase chemical reactions. CH-222Z is a lecture course; CH-228Z is the laboratory component.

Prerequisites: CH-221Z with a C or better

Corequisites: CH-228Z and CH-222SZ

OC	**CH-222Z-01**	**350923**	**MW**			**10-11:20 AM**	
	D. MYERS			$544.00	$56.00	$0.00	$600.00
	Corequisite: Take 2 of the following CH-228Z-01, CH-228Z-02, CH-222SZ-01, CH-222SZ-02.						
ONL	**CH-222Z-10**	**350924**					
	J. DU BOULAY			$544.00	$56.00	$0.00	$600.00
	Corequisite: Take the following CH-228Z-10, CH-222SZ-10.						

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Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
ONL	**CH-222Z-11** R. KHALIFE	**350926**		$544.00	$56.00	$0.00	$600.00
	Corequisite: Take the following CH-228Z-11, CH-222SZ-11.						

CH-227Z GENERAL CHEMISTRY I LABORATORY, 1 CREDIT

Experiments correspond to the topics covered in CH-221Z including the fundamentals of chemical measurements, quantitative relationships in chemical analysis, and understanding atomic and molecular structure. CH-227Z is the laboratory component; CH-221Z is the lecture course.

Corequisites: CH-221Z and CH-221SZ

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC	**CH-227Z-01** S. MCDONALD	**350927**	**T** **9-11:50 AM**	$136.00	$14.00	$50.00	$200.00
	Corequisite: Take the following CH-221Z-01, CH-221SZ-01.						
OC	**CH-227Z-10** D. MYERS	**350930**	**T** **1-3:50 PM**	$136.00	$14.00	$50.00	$200.00
	Corequisite: Take the following CH-221Z-10, CH-221SZ-10.						
OC	**CH-227Z-11** R. KHALIFE	**350932**	**W** **2-4:50 PM**	$136.00	$14.00	$50.00	$200.00
	Corequisite: Take the following CH-221Z-11, CH-221SZ-11.						

CH-228Z GENERAL CHEMISTRY II LABORATORY, 1 CREDIT

Experiments correspond to the topics covered in CH-222Z including the fundamentals of intermolecular interactions, stoichiometric relationships, chemical equilibria and their application to the synthesis, identification, and analysis of chemical compounds. CH-228Z is the laboratory component; CH-222Z is the lecture course.

Prerequisites: CH-221Z or CH-227Z with a C or better

Corequisites: CH-222Z and CH-222SZ

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC	**CH-228Z-01** D. MYERS	**350933**	**TH** **9-11:50 AM**	$136.00	$14.00	$50.00	$200.00
	Corequisite: Take 2 of the following CH-222Z-01, CH-222SZ-01, CH-222SZ-02.						
OC	**CH-228Z-02** D. MYERS	**350935**	**TH** **1-3:50 PM**	$136.00	$14.00	$50.00	$200.00
	Corequisite: Take 2 of the following CH-222Z-01, CH-222SZ-01, CH-222SZ-02.						
OC	**CH-228Z-10** J. DU BOULAY	**350936**	**TH** **7-9:50 PM**	$136.00	$14.00	$50.00	$200.00
	Corequisite: Take the following CH-222Z-10, CH-222SZ-10.						
OC	**CH-228Z-11** R. KHALIFE	**350937**	**F** **2-4:50 PM**	$136.00	$14.00	$50.00	$200.00
	Corequisite: Take the following CH-222Z-11, CH-222SZ-11.						

CH-242 ORGANIC CHEMISTRY II, 5 CREDITS

Second term of transfer sequence meeting organic chemistry requirement for premedical, dental, veterinary, pharmacy, chiropractic medicine, chemical engineering and biology majors.

Prerequisites: CH-241

Corequisites: CH-242L and CH-242S

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC	**CH-242-01** G. BURGESS	**350939**	**MW** **1-2:20 PM**	$680.00	$70.00	$50.00	$800.00

CH-242L ORGANIC CHEMISTRY I LAB, 0 CREDIT

Lab course for CH-242

Corequisites: CH-242 and CH-242S

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC	**CH-242L-01** G. BURGESS	**350940**	**F** **9-11:50 AM**	$0.00	$0.00	$0.00	$0.00

CH-242S ORGANIC CHEMISTRY II SEMINAR, 0 CREDIT

Seminar course for CH-242

Corequisites: CH-242 and CH-242L

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC	**CH-242S-01** G. BURGESS	**350942**	**W** **2:30 -3:20 PM**	$0.00	$0.00	$0.00	$0.00

College and Career Guidance

EL-103 TAKING EFFECTIVE NOTES, 1 CREDIT

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

Prerequisites: Placement in WRD-090 or higher

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
ONL NCT	**EL-103-13** B. MALONEY	**350951**		$136.00	$14.00	$0.00	$150.00

EL-111 COLLEGE STUDY SKILLS, 3 CREDITS

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

Prerequisites: Placement in WRD-090 or higher

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC HYB NCT	**EL-111-01** B. MALONEY Meets: 1/18-3/20.	**350953**	**T** **1-2:20 PM**	$408.00	$42.00	$15.00	$465.00

HD-102 SERVICE LEARNING EXPERIENCE, 1-6 CREDITS

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

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
ONL NCT	**HD-102-01** J. GINSBURG Required: Student Petition.	**351072**		$816.00	$84.00	$0.00	$900.00V

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

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

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC NCT	**HD-138-01** J. CORTES	**354884**	**TTH** **1-2:30 PM**	$408.00	$42.00	$0.00	$450.00

HD-140 CAREER EXPLORATION, 3 CREDITS

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

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
ONL NCT	**HD-140-01** TBA	**351075**		$408.00	$42.00	$10.00	$460.00

HD-157 PROCRASTINATION & TIME MANAGEMENT, 1 CREDIT

Provides students the opportunity to study their procrastination habits and time management patterns. Course focuses on components of time organization, choices regarding procrastination, and methods to improve overall use of time.

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
ONL NCT	**HD-157-01** TBA Meets: 1/25-2/8.	**351079**		$136.00	$14.00	$10.00	$160.00

HD-221 LEADERSHIP AND BUILDING COMMUNICATIONS SKILLS, 2 CREDITS

Campus Locations:
HAR: Harmony Community Campus
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Develops leadership skills with an emphasis on navigating challenging conversations. Addresses finding common vision and goals, managing conflict, and collaboration within interpersonal communication. Promotes development of equitable spaces for inclusive conversations. 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.

Course No	Course Title, Credits	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC NCT	HD-221-03	351093	M		3-4:50 PM				
	M. BAKER					$272.00	$28.00	$0.00	$300.00

Communication Studies

COMM-100Z INTRODUCTION TO COMMUNICATION, 4 CREDITS

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

Course No	Course Title, Credits	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC NCT	COMM-100Z-01	350945	TTH		10-11:50 AM				
	J. HULT					$544.00	$56.00	$0.00	$600.00
OC NCT	COMM-100Z-02	350952	TTH		1-2:50 PM				
	L. HANN					$544.00	$56.00	$0.00	$600.00
OC NCT	COMM-100Z-03	350954	MW		3-4:50 PM				
	L. HANN					$544.00	$56.00	$0.00	$600.00

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

Course No	Course Title, Credits	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
REM NCT	COMM-111Z-01	350955	MW		8-9:50 AM				
	B. MANN					$544.00	$56.00	$20.00	$620.00
OC NCT	COMM-111Z-02	350960	MW		8-9:50 AM				
	K. HUGHES					$544.00	$56.00	$20.00	$620.00
OC NCT	COMM-111Z-03	350963	TTH		8-9:50 AM				
	K. MCCONNELL					$544.00	$56.00	$20.00	$620.00
REM NCT	COMM-111Z-04	350964	TTH		8-9:50 AM				
	K. HUGHES					$544.00	$56.00	$20.00	$620.00
OC NCT	COMM-111Z-05	350966	MW		10-11:50 AM				
	J. HULT					$544.00	$56.00	$20.00	$620.00
OC NCT	COMM-111Z-06	350968	MW		10-11:50 AM				
	A. SAMBOR					$544.00	$56.00	$20.00	$620.00
REM NCT	COMM-111Z-07	350971	MW		10-11:50 AM				
	J. SMITH					$544.00	$56.00	$20.00	$620.00
OC NCT	COMM-111Z-08	350974	TTH		10-11:50 AM				
	K. MCCONNELL					$544.00	$56.00	$20.00	$620.00
REM NCT	COMM-111Z-09	350976	TTH		10-11:50 AM				
	K. HUGHES					$544.00	$56.00	$20.00	$620.00
OC NCT	COMM-111Z-10	350979	MW		1-2:50 PM				
	A. SAMBOR					$544.00	$56.00	$20.00	$620.00
OC NCT	COMM-111Z-11	350981	TTH		1-2:50 PM				
	A. SAMBOR					$544.00	$56.00	$20.00	$620.00
REM NCT	COMM-111Z-14	354972	TTH		6-7:50 PM				
	A. MOSEY					$544.00	$56.00	$20.00	$620.00
HAR NCT	COMM-111Z-15	350986	MW		6-7:50 PM				
	J. NETZER					$544.00	$56.00	$20.00	$620.00

COMM-140 INTRODUCTION TO INTERCULTURAL COMMUNICATION, 4 CREDITS

Intercultural Communication is a course dedicated to exploring the impact cultural differences have on the communication process. Students explore their own cultural behaviors and possible ways to deal with difficult situations when cultural differences cause a problem(s). Emphasis is given to the influence of culture on the interpretation of the communication act and to the communication skills that enhance cross-cultural communication.

Required: Non-native English speakers must have a Student Performance Level of 8 as measured by the BEST Plus. There is not a requirement for native speakers
Recommended Prerequisites: WRD-098 or placement in WR-121Z

Course No	Course Title, Credits	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
ONL	COMM-140-01	350990							
	K. HUGHES					$544.00	$56.00	$0.00	$600.00

COMM-212 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

Course No	Course Title, Credits	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC	COMM-212-01	350992	TTH		10-11:50 AM				
	A. SAMBOR					$544.00	$56.00	$10.00	$610.00

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

Course No	Course Title, Credits	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
REM NCT	COMM-218Z-01	350994	MW		1-2:50 PM				
	J. SMITH					$544.00	$56.00	$0.00	$600.00
HAR NCT	COMM-218Z-15	350998	TTH		10-11:50 AM				
	M. WILLIAMS					$544.00	$56.00	$0.00	$600.00

COMM-227 NONVERBAL COMMUNICATION, 4 CREDITS

Explores how humans encode and decode nonverbal behavior in the communication process, based on existing research. Examines the influence, interpretation, and/or management of various nonverbal signals, such as appearance, facial expression, body movement, etc. Considers how setting, social roles, gender, and inter/intra-cultural beliefs and values have an effect on interactions among individuals and groups.

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

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

ESPAÑOL: Enseñado en español
LCT: Low-Cost Text
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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 LCT	**COMM-227-01** K. HUGHES	**353426**	**MW** $544.00	$56.00	**10-11:50 AM** $0.00	$600.00

COMM-280 SPEECH/CWE, 2-6 CREDITS

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

Corequisites: CWE-281

ONL NCT	**COMM-280-01** K. HUGHES Required: Student Petition.	**351000**	$816.00	$84.00	$45.00	$945.00V

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

OC HYB	**CS-120-01** M. SORRENTINO Section meets Mondays remote via Zoom from 10:00-11:50am. Section meets in-person on campus on Wednesdays from 10:00-11:50am. Office 2024 version used. Online textbook included in section fees.	**351007**	**W** **M** $544.00	$56.00	**10-11:50 AM** **10-11:50 AM** $189.99	$789.99

CS-122 PERSONAL CYBERSECURITY FUNDAMENTALS, 2 CREDITS

In this course students explore how cybersecurity affects their digital activities every day, including school, gaming, social media, banking, shopping, and AI tools. Students examine common online threats and apply practical protections to secure their personal accounts and devices. Through demonstrations, activities, and hands-on practice, students develop skills and a mindset in threat recognition, privacy management, and digital security while exploring diverse cybersecurity career pathways in technology, policy, and business.

Required: Basic computer familiarity

OC NCT	**CS-122-01** L. RENDON	**354936**	**T** $272.00	$28.00	**9-10:50 AM** $0.00	$300.00

CS-123 SCRIPTING FOR SECURITY OPERATIONS, 4 CREDITS

Students in this course are introduced to scripting for security operations. The course is a highly practical copy-run-modify model where students start by running short, provided working scripts, then progressively adapting them to new scenarios. Using a combination of various shells and programming languages combined with regular expressions, focus on SOC-style tasks such as log collection, filtering, and simple detection logic.

Prerequisites: CS-140

OC NCT	**CS-123-01** L. RENDON	**354937**	**TTH** $544.00	$56.00	**1-2:50 PM** $0.00	$600.00

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** M. SORRENTINO	**351015**	$544.00	$56.00	$20.00	$620.00

CS-132 INTRODUCTION TO CYBERSECURITY, 4 CREDITS

In this course, students build foundational cybersecurity skills by applying the CIA triad (confidentiality, integrity, availability), to protect information and systems in basic organizational scenarios. Students examine security controls, risk management, and threat landscapes while exploring core areas such network security, identity and access management, security operations, and incident response. Through structured, hands-on labs using virtual machines and real-world case studies, students practice authentication and access controls, vulnerability and patch management, endpoint and network security configuration, and the use of security policies and frameworks to protect information systems.

Prerequisites: BA-131 or CS-122

OC NCT	**CS-132-01** L. RENDON	**354938**	**MW** $544.00	$56.00	**1-2:50 PM** $0.00	$600.00

CS-133J FRONT-END JAVASCRIPT I, 4 CREDITS

Design, programming, testing of scripted web pages using JavaScript for client-side applications and to call PHP-based server-side applications. Introduction to fundamental concepts of interactive web pages and server-side connectivity. Covers the Document Object Model (DOM) and programming constructs like variables, operators, functions, control structures, and exception handling. Emphasis on creating and consuming object literals and JSON objects.

Prerequisites: CS-125H

OC	**CS-133J-01** D. CARINO	**351017**	**TTH** $544.00	$56.00	**1-2:50 PM** $20.00	$620.00

CS-135I ADVANCED WEB DESIGN, 4 CREDITS

Plan and publish a professional, standards-based, accessible web site via a variety of tools. Complete market and user-needs analysis to best target site content and design. Create a graphical web site mock-up, then use CSS (including a framework and pre-processors), scripts, and multimedia to realize site goals. Emphasizes professional design techniques.

Prerequisites: CS-125H

OC HYB NCT	**CS-135I-01** D. EDGING	**351018**	**F** $544.00	$56.00	**1-2:50 PM** $20.00	$620.00

CS-151 NETWORKING 1, 4 CREDITS

This course introduces students to networking architectures, models, protocols, and components. These components facilitate the connection of users, devices, applications, and data through the internet and across modern computer networks. This course, along with CS-152 and CS-153, covers the topics of the Cisco CCNA certification exam.

Prerequisites: CS-140 or CS-160, or Student Petition

OC HYB NCT	**CS-151-01** R. CARINO Section meets Tuesdays remote via Zoom from 1:00-2:50pm. Section meets in-person on campus on Thursdays from 1:00-2:50pm.	**351021**	**T** **TH** $544.00	$56.00	**1-2:50 PM** **1-2:50 PM** $20.00	$620.00

CS-160 COMPUTER SCIENCE ORIENTATION, 4 CREDITS

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

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

ONL NCT	CS-160-01	351022							
	R. ALBERS					$544.00	$56.00	$20.00	$620.00

CS-161 COMPUTER SCIENCE I, 4 CREDITS

Introduction to fundamental concepts of structured programming, including problem solving, algorithm and program design, data types, loops, control structures, subroutines, and arrays. Learn to write structured programs in a high level programming language.

Prerequisites: MTH-111Z or placement in MTH-112Z, or 4 years high school math

ONL	CS-161-01	351025							
	J. MILLER					$544.00	$56.00	$20.00	$620.00
ONL	CS-161-02	351026							
	J. MILLER					$544.00	$56.00	$20.00	$620.00
ONL	CS-161-03	351028							
	J. MILLER					$544.00	$56.00	$20.00	$620.00
ONL	CS-161-04	351029							
	J. MILLER					$544.00	$56.00	$20.00	$620.00

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	CS-162-01	351030	MW		1-2:50 PM				
	R. ALBERS					$544.00	$56.00	$20.00	$620.00
ONL	CS-162-02	351034							
	R. ALBERS					$544.00	$56.00	$20.00	$620.00

CS-181 CMS WEB DEVELOPMENT, 4 CREDITS

Explores creating dynamic and interactive websites via the use of a current content management systems (CMS). Includes installation of CMS/database, working with templates, creating efficient site navigation, enhancing sites using components, modules, plugins, and extensions, including shopping cart utilities and the creation of custom themes.

Prerequisites: CS-125H

ONL	CS-181-30	351035							
	D. CARINO					$544.00	$56.00	$20.00	$620.00

CS-182 INTRO TO CLOUD COMPUTING, 4 CREDITS

This course is an overview of foundational cloud computing concepts and practices. Topics include compute, storage, connectivity, security, and automation on cloud provider platforms. This course covers the topics of the CompTIA Cloud+ certification exam.

Prerequisites: CS-151 and CS-240W

Recommended Prerequisites: CS-153 and CS-240L

ONL	CS-182-30	351037							
	R. CARINO					$544.00	$56.00	$20.00	$620.00

CS-205 SYSTEM PROGRAMMING AND ARCHITECTURE, 4 CREDITS

Introduces how high-level software runs on a computer system. Covers C programming and the assembly that C code becomes. Presents the fundamentals of computer architecture and how instructions and data are represented at the machine level. Provides experience analyzing compiled code to build necessary skills for future work in cybersecurity, operating systems, compilers, and other CS topics involving low-level computation.

Prerequisites: CS-162

OC	CS-205-01	351038	MW		10-11:50 AM				
	R. ALBERS					$544.00	$56.00	$20.00	$620.00

CS-228 COMPUTER OS MAINTENANCE & REPAIR, 4 CREDITS

An in-depth course in operating system maintenance and troubleshooting. Covers configuration, maintenance, and troubleshooting of desktop and mobile operating systems, the fundamentals of cloud computing, and client network configuration and troubleshooting. This course, in conjunction with CS-227, covers the topics on the CompTIA A + certification exam.

Prerequisites: CS-227

OC	CS-228-01	351040	MW		9-11:50 AM				
	L. RENDON					$544.00	$56.00	$20.00	$620.00

CS-233W FULL-STACK WEB DEVELOPMENT I, 4 CREDITS

Begin exploring the power of server-side JavaScript using Node.JS, NPM, and Express. Students will: use server-side JavaScript to implement common packages and bundle their own applications for consumer use; build custom web server applications to respond directly to HTTP requests; create, query, and manage NoSQL databases; and create views to combine user requests, database data, and static content into responsive, data-driven web applications.

Prerequisites: CS-133J

ONL	CS-233W-30	354939							
	D. CARINO					$544.00	$56.00	$20.00	$620.00

CS-240W WINDOWS DESKTOP ADMINISTRATION, 3 CREDITS

Covers the fundamentals of installing, configuring, troubleshooting, and supporting the Windows operating system. Topics include: installation, managing disks and file systems, file access security, users, profiles and policies, groups, security, backup, remote access, printing, and troubleshooting. This course covers the topics of the Microsoft Configuring Windows Devices certification exam.

Prerequisites: CS-140

OC HYB	CS-240W-01	351042	T		10-11:50 AM				
			TH		10-11:50 AM				
	R. CARINO					$408.00	$42.00	$20.00	$470.00
	Section meets Tuesdays remote via Zoom from 10:00-11:50am. Section meets in-person on campus on Thursdays from 10:00-11:50am.								

CS-250 DISCRETE STRUCTURES I, 4 CREDITS

Students will be introduced to discrete structures and techniques for computing. The course, which is the first 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: Sets; Graphs and trees; Functions: properties, recursive definitions, solving recurrences; Relations: properties, equivalence, partial order; Proof techniques: inductive proof; Counting techniques and discrete probability.

Prerequisites: MTH-251Z

OC	CS-250-01	351043	TTH		3-4:50 PM				
	J. MILLER					$544.00	$56.00	$20.00	$620.00

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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 | Time / Fee | Crs. Fee | Total

CS-275 DATABASE DESIGN, 3 CREDITS

Focuses on design of a relational database management systems (RDMS). Topics will include database development using the a) requirement, b) design, c) implementation model, database theory from flat table design to relational systems, entity-relationship models, one-to-one, one-to-many, and many-to-many relationships, referential integrity, normalization of tables, database programming and querying with SQL, and database security. Although other platforms may be demonstrated, the majority of work will be done with MySQL Server.

Prerequisites: CS-120 or placement into CS-275

ONL	**CS-275-30**	**351047**					
	D. CARINO		$408.00	$42.00	$20.00		$470.00

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 NCT	**CS-280-01**	**351049**					
	J. MILLER		$816.00	$84.00	$45.00		$945.00V

Required: Student Petition. Restricted to Computer Science students. Corequisite: Take the following CWE-281-05.

CS-284 NETWORK SECURITY, 3 CREDITS

This course provides an introduction to the core security skills needed for monitoring, detecting, investigating, analyzing and responding to security events, thus protecting systems and organizations from cybersecurity risks, threats and vulnerabilities. This course covers the topics of the Cisco CyberOps Associate certification exam.

Prerequisites: CS-151

Recommended Prerequisites: CS-240L and CS-240W

ONL NCT	**CS-284-30**	**351052**					
	R. CARINO		$408.00	$42.00	$20.00		$470.00

Computer-Aided Drafting Technology

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

CDT-103 COMPUTER-AIDED DRAFTING I, 3 CREDITS

Introduction to drafting applications using AutoCAD. Instruction includes problem solving, drawing layout, orthographic multi-view projection, line types, geometric construction and current drafting techniques. Use industry standards for CAD drawing, editing, file management, dimensions and notes.

Recommended Prerequisites: CDT-102

OC HYB	**CDT-103-01**	**350865**	**TTH**		**9-11:50 AM**		
	K. HOLLINGBERY		$408.00	$42.00	$153.75		$603.75

CDT-108A INTRODUCTION TO SOLIDWORKS, 3 CREDITS

This course is an introduction to the SolidWorks parametric mechanical software. Students will design 3D solid parts, sheet metal parts and assemblies, and develop 2D documentation from them.

REM	**CDT-108A-01**	**350868**	**TTH**		**5-7:50 PM**		
	M. ROTUNDO		$408.00	$42.00	$153.75		$603.75

CDT-130 INTRODUCTION TO FUSION, 2 CREDITS

This course is an introduction to parametric modeling in Autodesk Fusion. Students will design 3-D solid parts and assemblies and then develop 2-D drawing and CNC machining processes from these models.

OC	**CDT-130-01**	**350872**	**MW**		**12-1:50 PM**		
	J. CARLSTON		$272.00	$28.00	$0.00		$300.00

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	**CWE-281-01**	**350231**	**T**		**11:30 -12:20 PM**		
	M. LAFORCE		$0.00	$0.00	$0.00		$0.00

Restricted to Water Environmental Technology students. Contact: laforce@clackamas.edu or 503-594-3148 for more information.

ONL	**CWE-281-05**	**350232**					
	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	**CWE-281-06**	**350233**					
	J. STAPLETON		$0.00	$0.00	$0.00		$0.00

Criminal Justice

For more information on Criminal Justice, Corrections, credit for completion of D.P.S.S.T. or law enforcement academies contact Joanna Crawford at tim.musgrave@clackamas.edu or 503-594-6224.

CJA-101 CRIMINOLOGY, 4 CREDITS

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

HAR HYB LCT	**CJA-101-01**	**350857**	**M**		**8-8:50 AM**		
	T. MUSGRAVE		$544.00	$56.00	$0.00		$600.00
ONL LCT	**CJA-101-02**	**350860**					
	T. MUSGRAVE		$544.00	$56.00	$0.00		$600.00

CJA-110 INTRODUCTION TO LAW ENFORCEMENT, 3 CREDITS

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

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Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
HAR HYB	CJA-110-01	354904	M 9-9:50 AM				
	T. MUSGRAVE			$408.00	$42.00	$25.00	$475.00

CJA-120 INTRODUCTION TO COURTS, 3 CREDITS

Studies the judicial process from arrest through appeals, including search and seizure; interrogation; roles of defense attorneys, prosecutors, juries, grand juries, and judges; plea bargaining and guilty pleas; rights of criminal defendants at trial; appeals and habeas corpus.

ONL LCT	CJA-120-01	350862					
	S. HEALY			$408.00	$42.00	$0.00	$450.00

CJA-122 CRIMINAL LAW, 4 CREDITS

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

HAR HYB	CJA-122-01	350866	M 10-10:50 AM				
	T. MUSGRAVE			$544.00	$56.00	$0.00	$600.00

CJA-134 CORRECTIONAL INSTITUTIONS, 3 CREDITS

Analyzes prisons, jails and other correctional institutions. Discusses punishment history and rationale. Identifies the functions of the custodial staff and describes institutional procedures: reception, classification, program assignment and release. Studies prison management systems and examines juvenile facilities.

ONL LCT	CJA-134-01	350867					
	T. MUSGRAVE			$408.00	$42.00	$0.00	$450.00

CJA-201 JUVENILE DELINQUENCY, 4 CREDITS

Surveys the nature, extent, and causes of delinquent behavior focusing on theories of criminal behavior as they apply to juveniles. Studies historical and contemporary perspectives on juvenile offenders. Provides a multidisciplinary study of the causes of juvenile delinquency. Describes laws, enforcement, court, and correctional procedures within the juvenile system, and explores the differences between adult and juvenile practices.

ONL	CJA-201-01	350870					
	G. RONNING			$544.00	$56.00	$0.00	$600.00

CJA-203 CRISIS INTERVENTION, 3 CREDITS

Examines crisis intervention as it applies to emergency service workers. Includes the psychodynamics of family crisis; alcohol/drug related problems; suicide; sexual assault victims; domestic violence; mentally disturbed individuals; neglected, battered, and abused children.

HAR HYB LCT	CJA-203-01	350871	M 11-12:20 PM				
	J. BIRKINBINE			$408.00	$42.00	$0.00	$450.00

CJA-222 PROCEDURAL LAW, 3 CREDITS

This course discusses the constitutional and statutory provisions related to arrest, search and seizure. The course includes use of deadly force, admissions, interrogations, plain view limitations, law of stop and frisk, and officer testimony.

Prerequisites: CJA-122 with a C or better

HAR	CJA-222-01	350881	T 6-8:50 PM				
	S. HEALY			$408.00	$42.00	$0.00	$450.00

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.

Corequisites: CWE-281

ONL	CJA-280-01	350882					
	G. RONNING			$816.00	$84.00	$45.00	$945.00V

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

Dental Assistant

For more information, contact Health Sciences at healthsciences@clackamas.edu

DA-102 DENTAL RADIOLOGY II, 2 CREDITS

Alternative radiographic techniques are discussed as students develop their knowledge in the following areas: bisecting, extra-oral radiography, techniques for children, and patients with special needs. This course provides an in-depth study of the purpose and uses of panoramic imaging, digital imaging, three-dimensional digital imaging, and occlusal examinations. Identification of radiographic interpretation and infection control procedures will also be covered.

Required: Acceptance into Dental Assistant program
Prerequisites: DA-101 with a C or better
Corequisites: DA-102L

HAR	DA-102-01	350235	M 12-1:50 PM				
	K. HIATT			$272.00	$28.00	$310.00	$610.00

DA-102L DENTAL RADIOLOGY II LAB, 1 CREDIT

Knowledge and skills in alternative radiographic techniques are taught as students demonstrate exposure techniques and corrective measures of various alternative radiographic techniques. Students meeting radiographic proficiency on the x-ray mannequin prepare for the Radiation Health and Safety (RHS) proficiency exam. Candidates for the RHS proficiency exam will follow all RHS, Dental Assisting National Board (DANB) and Oregon examination requirements in preparation of patient radiographs.

Required: Acceptance into Dental Assistant program
Prerequisites: DA-101 with a C or better
Corequisites: DA-102

HAR	DA-102L-01	350236	TH 9-11:50 AM				
	K. HIATT A. KOBYLINSKY			$136.00	$14.00	$0.00	$150.00
HAR	DA-102L-02	350237	TH 1-3:50 PM				
	K. HIATT A. KOBYLINSKY			$136.00	$14.00	$0.00	$150.00

DA-105 CLINICAL PROCEDURES II, 2 CREDITS

A foundational course in preventive dentistry. Examines the study of preventive education, oral hygiene instruction, nutrition, fluoride agents, coronal polishing and sealants. The continuation of oral evacuation and isolation techniques will also be covered.

Required: Acceptance into Dental Assistant program
Prerequisites: DA-104 with a C or better
Corequisites: DA-105L

ONL	DA-105-01	350238					
	M. BUTKOVICH K. HIATT Seminar date TBA.			$272.00	$28.00	$225.00	$525.00

DA-105L CLINICAL PROCEDURES II LAB, 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
NCT: No-Cost Text

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

Furthers the development of chairside skills and introduces the application of preventive procedures such as coronal polishing, fluoride treatment and oral hygiene instruction. Basic knowledge in the application of dental sealants is also taught. Lab skills such as the placement and removal of matrix retainers and rubber dams are taught to provide preparation for chairside dental assisting functions. Aseptic procedures are practiced during all lab skills.

Required: Acceptance into Dental Assistant program
Prerequisites: DA-104L with a C or better
Corequisites: DA-105

HAR	DA-105L-01	350239	F		9-11:50 AM		
	K. HIATT		$136.00	$14.00	$0.00	$150.00	
	A. KOBYLINSKY						
HAR	DA-105L-02	350240	F		1-3:50 PM		
	K. HIATT		$136.00	$14.00	$0.00	$150.00	
	A. KOBYLINSKY						

DA-108 DENTAL MATERIALS II, 2 CREDITS

This course focuses on in-depth knowledge of the properties, uses and manipulation of impression materials, gypsum products and waxes. Foundational knowledge will prepare students for the fabrication of custom trays, bleaching trays, and provisional restorations. Includes knowledge of fixed and removable prosthodontic procedures and rational for polishing removable appliances. An overview of dental implants will also be covered.

Required: Acceptance into Dental Assistant program
Prerequisites: DA-107 with a C or better
Corequisites: DA-108L

ONL	DA-108-01	350241					
	K. HIATT		$272.00	$28.00	$285.00	$585.00	
	R. MASCARENHAS						

DA-108L DENTAL MATERIALS II LAB, 1 CREDIT

Essential skills in the manipulation and application of dental impression materials, gypsum products and waxes will be covered. Thorough knowledge of laboratory skills in the fabrication of bleaching trays and provisional restorations will be taught. Demonstration of custom trays and uses are introduced. The instrumentation and procedures for fixed and removable prosthodontics will also be covered.

Required: Acceptance into Dental Assistant program
Prerequisites: DA-107L with a C or better
Corequisites: DA-108

HAR	DA-108L-01	350242	M		9-11:50 AM		
	K. HIATT		$136.00	$14.00	$0.00	$150.00	
	A. KOBYLINSKY						
HAR	DA-108L-02	350243	M		2-4:50 PM		
	K. HIATT		$136.00	$14.00	$0.00	$150.00	
	A. KOBYLINSKY						

DA-120 CLINICAL PRACTICUM II, 5 CREDITS

Supervised unpaid practice and improvement of clinical skills taught in clinical procedures, dental materials and radiology. Covers advanced Expanded Functions Dental Assisting (EFDA) skills. Implement infection control protocols. Introduce basic business office procedures. Ten hours of community service will be required. Participate in 9 hours of seminar during the term.

Required: Acceptance into Dental Assistant program
Prerequisites: DA-110 with a C or better

HAR	DA-120-01	350244	TW		8-4:50 PM		
	K. HIATT		$680.00	$70.00	$335.00	$1,085.00	
	A. KOBYLINSKY						

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 NCT	DMC-104-01	351053	TTH		1-3:50 PM		
	D. MATZA		$544.00	$56.00	$120.00	$720.00	

DMC-105 THE ART AND CRAFT OF ANIMATION AND CINEMATOGRAPHY, 4 CREDITS

This course is an overview of the art and craft of animation and cinematography and includes, the history of early animation and camera techniques. Students will explore cinematic and animation techniques that include hand-drawn, stop motion, computer-generated animation, world-building, storyboarding, lighting, camera motion and character design. Technical aspects and aesthetic considerations of visual storytelling are considered through lectures, screenings, demonstrations, exercises, creative projects and class critiques.

OC	DMC-105-01	351056	MW		9-11:50 AM		
	M. DEVENDORF		$544.00	$56.00	$120.00	$720.00	

DMC-106 ANIMATION & MOTION GRAPHICS I, 4 CREDITS

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

Recommended Prerequisites: DMC-104 or DMC-225

OC NCT	DMC-106-01	351059	MW		1-3:50 PM		
	T. WASSON		$544.00	$56.00	$120.00	$720.00	

DMC-147 MUSIC, SOUND & MOVIEMAKING, 1 CREDIT

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

OC NCT	DMC-147-01	350229	F		6:30 -8:20 PM		
			S		9-5:50 PM		
	B. ROSE		$136.00	$14.00	$99.00	$249.00	
	Meets: 1/29 & 1/30.						

DMC-205 DIRECTING FOR FILM & VIDEO, 4 CREDITS

This course provides students interested in filmmaking the opportunity to develop the skills needed to successfully direct films and performances specifically for the screen.

Recommended Prerequisites: DMC-104, DMC-264, and WR-121Z

OC LCT	DMC-205-01	351062	MW		1-3:50 PM		
	M. DEVENDORF		$544.00	$56.00	$120.00	$720.00	

DMC-221 INTRODUCTION TO 2D ANIMATION: DESIGN & TECHNIQUES, 4 CREDITS

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VAR: Variable credit class

ESPAÑOL: Enseñado en español
LCT: Low-Cost Text
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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

Introduces the principles of 2D digital animation using the latest industry standard software. The course will emphasize design and physical principles, analytical skills, and creativity. Students will learn the fundamental principles of animation, character and environment design, FX animation, and basic narrative development, in order to create successful animated projects.

Recommended Prerequisites: DMC-225 or equivalent experience

OC NCT	**DMC-221-01**	**351066**	**TTH**			**9-11:50 AM**	
	T. WASSON		$544.00	$56.00	$120.00		$720.00

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 NCT	**DMC-280-01**	**351071**					
	T. WASSON		$816.00	$84.00	$45.00		$945.00V
	Required: Student Petition.						

DMC-291 DIGITAL MEDIA COMMUNICATIONS PORTFOLIO PROJECT I, 4 CREDITS

This course is an individual portfolio project class for Digital Media Communications (DMC) students. Students create an original finished work representative of one of the focus areas included in the DMC program. Students will develop a professional online portfolio (website) that represents their skills in their chosen DMC focus area in preparation for internships and employment. The process of portfolio production at this level includes planning for, refining and completing a project, presentation of the completed work, and project assessment.

Prerequisites: DMC-100 and DMC-104

Recommended: Two courses from a DMC Focus Area

OC NCT	**DMC-291-01**	**351073**	**TTH**			**1-3:50 PM**	
	T. WASSON		$544.00	$56.00	$120.00		$720.00

Economics

EC-201Z PRINCIPLES OF MICROECONOMICS, 4 CREDITS

Examines how consumers and firms make choices when facing scarce resources, and how those choices are related to government policy and market outcomes, such as prices and output.

Prerequisites: MTH-020 or placement in MTH-098

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

OC NCT	**EC-201Z-01**	**350885**	**TTH**			**10-11:50 AM**	
	D. LOUGEE		$544.00	$56.00	$0.00		$600.00
ONL NCT	**EC-201Z-02**	**350891**					
	D. LOUGEE		$544.00	$56.00	$0.00		$600.00

EC-202Z PRINCIPLES OF MACROECONOMICS, 4 CREDITS

Examines the aggregate activity of a market economy, economic growth, inflation, unemployment, and the use of fiscal and monetary policy to address macroeconomic problems.

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

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

OC NCT	**EC-202Z-01**	**350893**	**TTH**			**3-4:50 PM**	
	D. LOUGEE		$544.00	$56.00	$0.00		$600.00
ONL NCT	**EC-202Z-02**	**350898**					
	M. PARTAPURWALA		$544.00	$56.00	$0.00		$600.00

Education

ECE-121 OBSERVATION AND GUIDANCE I IN ECE SETTINGS, 4 CREDITS

Course is designed to help students explore in depth observation and recording techniques of children's development and learning and to examine various child guidance techniques for children from birth - 3rd grade. Students will be provided with strategies to assist them in providing positive guidance to children in a variety of settings and situations.

REM	**ECE-121-01**	**350900**	**T**			**5-6:00 PM**	
	D. HENDRICKS		$544.00	$56.00	$0.00		$600.00
	Meets: 1/4-2/7. This is an accelerated 5-week section that meets on five Tuesdays (1/5, 1/12, 1/19, 1/26, 2/2).						

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 orientaciónes positivas a los niños en función de diferentes de escenarios y situaciones.

REM ESPAÑOL	**ECE-121ES-01**	**350902**	**M**			**6-7:50 PM**	
	L. JAMES		$544.00	$56.00	$0.00		$600.00
	La clase se reúne seis martes por Zoom de 6:00-7:50pm. (1/4, 1/25, 2/8, 2/22, 3/8).						

ECE-154 LANGUAGE & LITERACY DEVELOPMENT IN YOUNG CHILDREN, 4 CREDITS

Focuses on language and literacy development of children from birth-age 8. The research foundation and components of language and literacy development will be examined. Criteria for selecting quality children's literature will be explored. Practical strategies for promoting optimal development will be emphasized. Students will explore how to set create language and literacy-rich environments and experiences.

ONL	**ECE-154-01**	**350908**					
	B. KING		$544.00	$56.00	$0.00		$600.00
	Meets: 1/4-2/7. This is an accelerated 5-week course that is all online with no synchronous meetings.						

ECE-169ES TRABAJAR CON NIÑOS CON NECESIDADES ESPECIALES, 4 CREDITS

Explora prácticas inclusivas para niños con necesidades especiales, desde el nacimiento hasta el tercer grado, en diferentes entornos de desarrollo infantil entornos de primera infancia. Este curso incluirá una exploración de lo siguiente: historia y contexto legal de la educación especial de la primera infancia; la importancia y los beneficios de crear entornos familiares para apoyar el desarrollo educativo de los niños; adaptaciones y adaptaciones curriculares; evaluación y seguimiento del progreso; y promoción.

ONL ESPAÑOL	**ECE-169ES-01**	**350913**					
	B. MARRON		$544.00	$56.00	$0.00		$600.00
	La clase se reunirá el 6 de enero por Zoom de 6:00-7:50pm.						

ECE-170 INTRODUCTION TO FIELD EXPERIENCES, 1 CREDIT

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

This course prepares students for successful field experiences by teaching them how to develop meaningful learning objectives, evaluate field experience opportunities, and navigate professional responsibilities. Students will explore program requirements, search strategies for placements, professional communication skills, and the NAEYC Code of Ethics for Early Childhood Educators to guide ethical behavior throughout their field experiences.

Prerequisites: ECE-150 and ECE-235
Corequisites: HDF-225

REM	ECE-170-01	354905	W		6-6:50 PM		
	D. GLASCOCK		$136.00	$14.00	$0.00		$150.00
	This section meets on three Wednesdays from 6:00-6:50pm. (1/6, 2/10, 3/10).						

ECE-170ES INTRODUCCIÓN A LA PRÁCTICA DOCENTE, 1 CREDIT

Este curso prepara a los estudiantes para una experiencia de práctica profesional exitosa mediante el aprendizaje de cómo desarrollar objetivos de aprendizaje significativos, evaluar oportunidades de práctica y desenvolverse en sus responsabilidades profesionales. Los estudiantes explorarán los requisitos del programa, estrategias de búsqueda de centros de práctica, habilidades de comunicación profesional y el Código de Conducta Ética de la Asociación Nacional para la Educación de la Primera Infancia (NAEYC) para orientar un comportamiento ético a lo largo de su experiencia de práctica profesional.

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

REM ESPAÑOL	ECE-170ES-01	353446	TH		6-7:00 PM		
	A. ECHEVARRIA		$136.00	$14.00	$0.00		$150.00
	Esta es una sección acelerada de 5 semanas que se reúne cinco jueves de 600-7:00pm (1/7, 1/14, 1/21, 1/28, 2/4).						

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

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

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

ONL ESPAÑOL	ECE-179ES-01	353447					
	A. ECHEVARRIA		$544.00	$56.00	$0.00		$600.00

ECE-235 SAFETY, HEALTH AND NUTRITION, 3 CREDITS

Explores safety, health and nutrition issues for children ages infant through preschool. Focus includes creating safe indoor and outdoor environments, healthy lifestyle practices, caring for children with special healthcare needs, USDA food program requirements, and state guidelines around safety, health and nutrition requirements.

ONL	ECE-235-01	350920					
	D. GLASCOCK		$408.00	$42.00	$0.00		$450.00
	Meets: 2/8-3/14. This is an accelerated 5-week course that is all online with no synchronous meetings.						

ECE-235ES SEGURIDAD, SALUD, Y NUTRICIÓN, 3 CREDITS

Este curso explora temas de seguridad, salud y nutrición para niños desde bebés hasta la edad de cinco años. El enfoque incluye la creación de ambientes seguros al interior como el exterior, prácticas para llevar us estilo de vida saludable, cuidado de niños con necesidades especiales médicas, requisitos del programa de alimentos del USDA y pautas estatales sobre los requisitos de seguridad, salud y nutrición.

REM LCT ESPAÑOL	ECE-235ES-01	350922	M		6-7:50 PM		
	D. TORRADO		$408.00	$42.00	$0.00		$450.00
	La clase se reúne seis lunes por Zoom de 6:00pm-7:50pm. (1/4, 1/11, 1/25, 2/8, 2/22, 3/8).						
REM ESPAÑOL	ECE-235ES-02	350925	S		8-9:50 AM		
	S. ABZUN		$408.00	$42.00	$0.00		$450.00
	La clase se reúne seis sábados por Zoom de 8:00-9:50am. (1/9, 1/22, 1/29, 2/12, 2/26, 3/12).						

ECE-239ES PRÁCTICAS INFORMADAS POR EL TRAUMA EN EL CUIDADO Y LA EDUCACIÓN DE LA PRIMERA INFANCIA, 4 CREDITS

Desarrollar conocimientos y habilidades que apoyen el aprendizaje y el desarrollo de niños pequeños, desde el nacimiento hasta los 8 años, que han sido negativamente afectados por traumas. Explorar los tipos y síntomas del trauma, y hacer hincapié en las prácticas informadas por el trauma que pueden aplicarse en el hogar y el entorno escolar del niño. Identificar los recursos disponibles y las estrategias reconocidas para trabajar en colaboración con las familias y otros profesionales.

Prerequisites: ECE-150ES and HDF-225ES

ONL ESPAÑOL	ECE-239ES-01	350928					
	A. ECHEVARRIA		$544.00	$56.00	$0.00		$600.00

ECE-240ES AMBIENTES Y PLANIFICACIÓN CURRICULAR, 4 CREDITS

Se centra en la introducción a la creación de entornos de aprendizaje y currículos para niños de tres a cinco años, tanto en programas basados en el hogar como en centros educativos. El curso abarca las teorías y las relaciones existentes entre el espacio físico y social, las actividades, las experiencias y los materiales. Se introduce a los estudiantes en el uso de prácticas apropiadas para el desarrollo y culturalmente pertinentes al planificar y seleccionar entornos y currículos para la primera infancia. Este curso incluye una evaluación clave obligatoria (Key Assessment) para fines de acreditación, la cual no puede ser eximida ni convalidada mediante créditos transferidos desde otra institución.

Prerequisites: ECE-121ES, ECE-150ES, ECE-235ES, FYE-101ES, HDF-247ES, and WR-124ES

REM ESPAÑOL	ECE-240ES-01	353448	TH		6-7:50 PM		
	Y. SANCHEZ		$544.00	$56.00	$0.00		$600.00
	La clase se reúne seis jueves por Zoom de 6:00-7:50pm (1/7, 1/21, 2/4, 2/18, 3/4, 3/18).						

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

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.

Prerequisites: ECE-154ES and ECE-240ES

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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
REM ESPAÑOL	ECE-254ES-01	350931	W			6-7:50 PM	
	S. ABZUN			$544.00	$56.00	$0.00	$600.00
	La clase se reúne seis miércoles por Zoom de 6:00-7:50pm. (1/6, 1/20, 2/3, 2/17, 3/3, 3/17).						

ECE-258ES EQUIDAD Y DIVERSIDAD EN LA EDUCACIÓN INFANTIL, 4 CREDITS

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.

Prerequisites: ECE-150ES, ECE-235ES, and FYE-101ES

Course No	Course Title, Credits	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Tuition	Fee	Time / Crs. Fee	Total
REM ESPAÑOL	ECE-258ES-01	353450	TH			6-7:50 PM	
	P. ALVARADO			$544.00	$56.00	$0.00	$600.00
	La clase se reúne seis jueves por Zoom de 6:00-7:50pm. (1/7, 1/21, 2/4, 2/18 ,3/4, 3/18).						

ECE-291 PRACTICUM II, 4 CREDITS

Focuses on field experience for students in a variety of early childhood education settings. This course allows students to apply knowledge, methods, and skills gained from the Early Childhood Education and Family Studies courses. The course covers classroom experiences, best practices and assessment techniques that align with the National Association for the Education of Young Children. This course contains two required accreditation key assessments and cannot be waived or transferred in from another institution. Required: Student Petition.

Prerequisites: ECE-114, ECE-154, ECE-221, ECE-240, ECE-241, ECE-280, and HDF-247

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 HYB	ECE-291-01	350934	TH			5:30 -7:20 PM	
	B. KING			$544.00	$56.00	$0.00	$600.00
	Required: Student Petition. Meets in-person on six Thursdays from 5:30pm to 7:20pm. (1/7, 1/21, 2/4, 2/18, 3/1, 3/15).						

ECE-291ES PRACTICUM II, 4 CREDITS

Se centra en la experiencia de practica para los estudiantes en una variedad de entornos de educación de la primera infancia. Este curso permite a los estudiantes aplicar los conocimientos, métodos y habilidades adquiridos en los cursos de Educación de la Primera Infancia y Estudios de la Familia. El curso abarca experiencias en el aula, mejores prácticas y técnicas de evaluación que se alinean con la Asociación Nacional para la Educación de Niños Pequeños (NAEYC). Este curso incluye dos evaluaciones clave de acreditación (Key Assessments) de carácter obligatorio; por consiguiente, no puede ser eximido ni convalidado mediante transferencia desde otra institución. Requisito: Solicitud del estudiante.

Prerequisites: ECE-121ES, ECE-154ES, ECE-179ES, ECE-221ES, ECE-240ES, ECE-241ES, and ECE-280ES

Course No	Course Title, Credits	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Tuition	Fee	Time / Crs. Fee	Total
REM ESPAÑOL	ECE-291ES-01	350938	T			6-7:50 PM	
	A. ECHEVARRIA			$544.00	$56.00	$0.00	$600.00
	Requerido: petición del estudiante. La clase se reúne seis martes por Zoom de 6:00pm-7:50pm. (1/5, 1/19, 2/2, 2/16, 3/9).						
REM ESPAÑOL	ECE-291ES-02	354903	M			6-7:50 PM	
	A. ECHEVARRIA			$544.00	$56.00	$0.00	$600.00
	Requerido: petición del estudiante. La clase se reúne seis lunes por Zoom de 6:00pm-7:50pm. (1/4, 1/11, 1/25, 2/8, 2/22, 3/8).						

ED-131 CURRICULUM & INSTRUCTION, 3 CREDITS

This course examines the knowledge, skills, and characteristics of effective teachers. The focus of the course is on successful instructional planning and the delivery of curriculum. This course covers teacher-centered and student-centered instructional strategies and ways to differentiate instruction for diverse learners.

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	ED-131-01	350943					
	L. SCOTT			$408.00	$42.00	$56.24	$506.24
	Online textbook included in section fees.						

ED-216 FOUNDATIONS OF EDUCATION, 4 CREDITS

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

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	ED-216-01	350944					
	L. SCOTT			$544.00	$56.00	$44.88	$644.88
	Online textbook included in section fees.						

ED-229 LEARNING & DEVELOPMENT, 3 CREDITS

Focuses on foundational ideas, concepts, principles, and theories in the field of educational psychology that have a significant influence on educational practice. Provides students with an overview of psychological theories regarding human development, intelligence, motivation, and the learning process. Students learn how to apply strategies and techniques derived from these theories in the classroom.

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	ED-229-01	350946					
	L. SCOTT			$408.00	$42.00	$56.24	$506.24
	Online textbook included in section fees.						

ED-254 INSTRUCTIONAL STRATEGIES FOR DUAL LANGUAGE LEARNERS, 3 CREDITS

Examines pedagogical and cultural approaches which lead to successful development of English language skills and content knowledge for children who speak a home language other than English.

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 LCT	ED-254-01	350948					
	D. HENDRICKS			$408.00	$42.00	$0.00	$450.00

ED-269 OVERVIEW OF SPECIAL EDUCATION, 3 CREDITS

Provides an introduction to the categories of disability described in the Individuals with Disabilities Education Act (IDEA). Topics include definitions under federal law, implications in school settings, and intervention strategies to meet students' special needs.

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 NCT	ED-269-01	350949					
	T. GOWDY			$408.00	$42.00	$0.00	$450.00

Educational Focus Area

EFA-101S INTRODUCTION TO STEM, 2 CREDITS

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

Course No	Course Title, Credits	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Tuition	Fee	Time / Crs. Fee	Total
REM	EFA-101S-01	351088	TTH			2-2:50 PM	
	J. BOWN E. LEE			$272.00	$28.00	$0.00	$300.00

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HYB: In-person plus online work

Other Coding Translations:
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VAR: Variable credit class

ESPAÑOL: Enseñado en español
LCT: Low-Cost Text
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Course No | Course Title, Credits | Section No / Instructor | Crs Reg. | Days (M,T,W,TH.F,S,SU) | Time | Tuition | Fee | Crs. Fee | Total

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-113 ELECTRONIC EQUIPMENT AND ASSEMBLY II, 1 CREDIT

This is the second course in a three course sequence. Exploration of oscilloscope and function generator functions to create and measure time varying signals. Spreadsheets are used to analyze and plot experimental data. Create circuits using PCB software.

Prerequisites: EET-112

OC	EET-113-01	351076	MW		4:30 -5:20 PM			
	B. PALACIOS			$136.00	$14.00	$43.75	$193.75	

EET-141 ELECTRICAL FUNDAMENTALS II, 4 CREDITS

Learn methods of electrical circuit analysis, using proper DC theorems. Study energy storage elements including inductors and capacitors. Transient analysis of RC and RL circuits will studied.

Prerequisite or Corequisite: EET-113

Prerequisites: EET-137

Recommended Prerequisite or Corequisite: MTH-111Z

OC	EET-141-01	351080	MW		12-3:50 PM			
	M. FARRELL			$544.00	$56.00	$174.00	$774.00	

EET-225 MECHATRONICS I, 2 CREDITS

This course explores automation of industrial systems. Students will study the fundamental components of industrial motion control, relay circuits, stepper and servo motors; and power transmission components.

Prerequisites: EET-215

OC	EET-225-01	351082	MW		2-3:50 PM			
	J. TRAVER			$272.00	$28.00	$87.50	$387.50	

EET-227 SEMICONDUCTOR CIRCUITS II, 3 CREDITS

Second in a series concentrating on the application, design and circuit analysis of circuits using transistors. Industry standard devices will be used.

Prerequisites: EET-127

OC	EET-227-01	351083	MW		5:30 -8:20 PM			
	J. KUEBLER			$408.00	$42.00	$130.50	$580.50	

EET-233 PROGRAMMABLE LOGIC CONTROLLERS I, 3 CREDITS

Study of basic skills necessary to program, install and maintain industrial control systems utilizing programmable logic controllers. Course content lays a foundation of hardwired relay control systems and components, and then builds on this for an understanding of programmable logic controller (PLC) systems.

Recommended Prerequisites: MFG-130

OC	EET-233-01	351084	TH		6-8:50 PM			
	B. GARDNER			$408.00	$42.00	$0.00	$450.00	

EET-257 DIGITAL LOGIC II, 3 CREDITS

Bus systems and computer peripherals & systems using latches, registers, counters, and memory circuits are developed and analyzed.

Prerequisites: EET-157

OC	EET-257-01	351086	MW		5:30 -8:20 PM			
	B. PALACIOS			$408.00	$42.00	$130.50	$580.50	

SM-136 PHOTOLITHOGRAPHY, 2 CREDITS

The course covers the relationship between theoretical and practical aspects of current methods and equipment used in photolithography. It also includes troubleshooting common process and equipment-related problems.

Recommended Prerequisites: SM-150

ONL	SM-136-01	351386						
	W. SELLEVAAG			$272.00	$28.00	$87.00	$387.00	

SM-160 SEMICONDUCTOR PROCESSING II, 2 CREDITS

Provides an overview of basic processes involved in the fabrication of finished silicon wafers, oxidation and deposition processes. Troubleshooting of common equipment is emphasized.

Recommended Prerequisites: SM-150

ONL	SM-160-01	351387						
	W. SELLEVAAG			$272.00	$28.00	$87.00	$387.00	

SM-280 ELECTRONICS & MICROELECTRONICS/CWE, 1-6 CREDITS

Cooperative work experience. Practical experience in the high-tech industry. 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	SM-280-01	351388						
	C. CONNORS			$816.00	$84.00	$255.00	$1,155.00V	
	Required: Student Petition. Restricted: Microelectronics & 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.

Prerequisites: EMT-105 with a C or better

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

Required: Students must complete the EMT Program application, available on the program webpage. Conditionally accepted students are required to attend mandatory orientation and fulfill all Oregon Health Authority requirements for students in clinical training before registering for courses. Formal acceptance into the program is required for enrollment

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

HAR HYB	EMT-101-01	350245	MWF		1-4:20 PM			
	C. DUNN N. HUNGERFORD-LEVINE T. SAWZAK			$816.00	$84.00	$400.00	$1,300.00	
HAR HYB	EMT-101-02	354951	MWTH		1-4:20 PM			
	C. DUNN N. HUNGERFORD-LEVINE T. SAWZAK			$816.00	$84.00	$400.00	$1,300.00	

EMT-102 EMERGENCY MEDICAL TECHNICIAN PART II, 6 CREDITS

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VAR: Variable credit class

ESPAÑOL: Enseñado en español
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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: Acceptance into EMT cohort

Prerequisites: EMT-101 with a C or better

HAR HYB	**EMT-102-01**	**350246**	**MWF**		**6-9:20 PM**		
	C. DUNN N. HUNGERFORD-LEVINE T. SAWZAK		$816.00	$84.00	$400.00	$1,300.00	

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**	**350247**					
	T. SAWZAK		$408.00	$42.00	$0.00	$450.00	
ONL	**EMT-105-02**	**350248**					
	T. SAWZAK		$408.00	$42.00	$0.00	$450.00	

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

REM	**ENGR-111-01**	**351089**	**MW**		**8:30 -9:50 AM**		
	A. SCHER		$408.00	$42.00	$10.00	$460.00	

ENGR-112 ENGINEERING PROGRAMMING, 3 CREDITS

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	**ENGR-112-01**	**351092**	**MW**		**3-4:20 PM**		
	G. BOSTROM		$408.00	$42.00	$0.00	$450.00	
ONL	**ENGR-112-02**	**351096**					
	R. ALBERS		$408.00	$42.00	$0.00	$450.00	

ENGR-171 DIGITAL LOGIC, 4 CREDITS

Introduction to digital design fundamentals. Covers basic logic gates, number systems, logic circuit simplification techniques, combinational logic devices, flip-flops, and basic state machines. Uses computer-based tools for logic system development and simulation. Reinforces systemic design methodology.

Prerequisites: MTH-111Z

OC	**ENGR-171-01**	**351097**	**MF**		**9-11:50 AM**		
	M. FARRELL		$544.00	$56.00	$0.00	$600.00	

ENGR-212 DYNAMICS, 4 CREDITS

Kinematics, kinetics, work-energy, and impulse-momentum relationships of engineering systems. The course examines the fundamental principles of Newton's laws of motion, with applications to basic particles and rigid bodies in one, two, and three dimensions.

Prerequisites: ENGR-211 and PH-211

OC	**ENGR-212-01**	**351100**	**MW**		**3-4:50 PM**		
	B. DANIELS		$544.00	$56.00	$20.00	$620.00	

ENGR-222 ELECTRICAL CIRCUIT ANALYSIS II, 4 CREDITS

Expands upon the techniques of circuit analysis begun in ENGR-221 through theory and laboratory experiments. The course covers the time response of first- and second-order circuits, the steady-state circuit behavior of circuits driven by sinusoidal sources, AC power, and three phase circuits.

Prerequisites: ENGR-221

Corequisites: ENGR-222L

Recommended Prerequisite or Corequisite: ENGR-112

OC	**ENGR-222-01**	**351101**	**TTH**		**9-10:20 AM**		
	M. FARRELL		$544.00	$56.00	$52.00	$652.00	

ENGR-222L ELECTRICAL CIRCUIT ANALYSIS II LAB, 0 CREDIT

Lab course for ENGR-222

Corequisites: ENGR-222

Recommended Prerequisite or Corequisite: ENGR-112

OC	**ENGR-222L-01**	**351103**	**TTH**		**10:30 -11:50 AM**		
	M. FARRELL		$0.00	$0.00	$0.00	$0.00	

ENGR-231 PROPERTIES OF MATERIALS, 4 CREDITS

This course is an introduction to materials science, a field that describes the behavior of materials by utilizing principles of chemistry and physics to engineer new materials and predict their resultant properties. Materials processing methods and the resulting microscopic structures and macroscopic thermal, electrical, and mechanical properties will be investigated.

Prerequisites: CH-221Z and CH-227Z

OC	**ENGR-231-01**	**351104**	**TTH** **T**		**10-11:20 AM** **12-2:50 PM**		
	M. BABCOCK		$544.00	$56.00	$52.00	$652.00	

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.

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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 LCT	**ESOL-012-01 350314 MW**				**9-11:50 AM**	
	D. VERMILLION		$0.00	$0.00	$60.00	$60.00
	Required: Student Petition.					
HAR LCT	**ESOL-012-06 350316 MW**				**6-8:50 PM**	
	L. MYERS		$0.00	$0.00	$60.00	$60.00
	Required: Student Petition.					
HAR LCT	**ESOL-012-07 350319 MW**				**6-8:50 PM**	
	K. HOLLOWAY		$0.00	$0.00	$60.00	$60.00
	Required: Student Petition.					

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

English language learners are introduced to the basic language necessary to function in day-to-day American society; language functions are taught in the contexts of work, family and community. Aligns with the Oregon Adult English Language Proficiency Standards, Level 1. Variable Hours: 48-66 hours. Required: Student Petition.

OC NCT	**ESOL-015-01 350324 TTH**				**9-11:50 AM**	
	J. RUEDA		$0.00	$0.00	$65.00	$65.00
	Required: Student Petition.					
HAR NCT	**ESOL-015-06 350326 TTH**				**6-8:50 PM**	
	D. VERMILLION		$0.00	$0.00	$65.00	$65.00
	Required: Student Petition.					
HAR NCT	**ESOL-015-07 350328 TTH**				**6-8:50 PM**	
	K. HOLLOWAY		$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 NCT	**ESOL-020-01 350330 MW**				**10:30 -11:50 AM**	
	L. JOYCE		$0.00	$0.00	$35.00	$35.00
	Required: Student Petition.					
HAR NCT	**ESOL-020-06 350333 MW**				**6-7:20 PM**	
	K. EMENS-HESSLINK		$0.00	$0.00	$35.00	$35.00
	Required: Student Petition.					

ESOL-022 UPPER BEGINNING CONVERSATION, 0 CREDIT

English language learners study and practice speaking and listening skills in basic, highly-structured tasks in the contexts of community, health, and work. Aligns with the Oregon Adult English Language Proficiency Standards, Levels 1 & 2.

HAR LCT	**ESOL-022-06 350337 MW**				**7:30 -8:50 PM**	
	K. EMENS-HESSLINK		$0.00	$0.00	$30.00	$30.00
	Required: Student Petition.					

ESOL-024 UPPER BEGINNING READING & WRITING, 0 CREDIT

English language learners read short texts to improve reading skills, write simple, compound, and complex sentences, and write related sentences in paragraph form for the contexts of school, work, family and community. Aligns with the Oregon Adult English Language Proficiency Standards, Level 2. Required: Student Petition.

OC LCT	**ESOL-024-01 350339 TTH**				**9-11:50 AM**	
	T. NIKOLOPOULOS		$0.00	$0.00	$60.00	$60.00
	Required: Student Petition.					
HAR LCT	**ESOL-024-06 350341 TTH**				**6-8:50 PM**	
	T. NIKOLOPOULOS		$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.

HAR LCT	**ESOL-030-06 350344 MW**				**6-7:20 PM**	
	S. CAISSE		$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.

OC LCT	**ESOL-031-01 350346 MW**				**10:30 -11:50 AM**	
	A. FRANZONI		$0.00	$0.00	$30.00	$30.00
	Required: Student Petition.					
HAR LCT	**ESOL-031-06 350348 MW**				**6-7:20 PM**	
	I. FERGUSON		$0.00	$0.00	$30.00	$30.00
	Required: Student Petition.					

ESOL-033 INTERMEDIATE CONVERSATION 2, 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	**ESOL-033-01 350349 MW**				**9-10:20 AM**	
	S. CAISSE		$0.00	$0.00	$30.00	$30.00
	Required: Student Petition.					
HAR LCT	**ESOL-033-06 350351 MW**				**7:30 -8:50 PM**	
	S. CAISSE		$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	**ESOL-034-01 350355 TTH**				**9-11:50 AM**	
	S. CAISSE		$0.00	$0.00	$60.00	$60.00
	Required: Student Petition.					
HAR LCT	**ESOL-034-06 350357 TTH**				**6-8:50 PM**	
	A. FRANZONI		$0.00	$0.00	$60.00	$60.00
	Required: Student Petition.					
HAR LCT	**ESOL-034-07 350359 MW**				**6-8:50 PM**	
	TBA		$0.00	$0.00	$60.00	$60.00
	Required: Student Petition.					

ESOL-043 UPPER INTERMEDIATE CONVERSATION 2, 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. One of a 2-part series. Required: Student Petition.

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OC LCT	ESOL-043-01	350361	MW				9-10:20 AM	
	A. FRANZONI				$0.00	$0.00	$30.00	$30.00
	Required: Student Petition.							
HAR LCT	ESOL-043-06	350362	MW				7:30 -8:50 PM	
	K. STECKMEST				$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 NCT	ESOL-044-01	350366	TTH				9-11:50 AM	
	L. JOYCE				$0.00	$0.00	$70.00	$70.00
	Required: Student Petition.							

ESOL-046 EDITING FOR BETTER WRITING, 0 CREDIT

English language learners improve their writing through editing. They also engage in extended reading to provide a context for writing. Aligns with the Oregon Adult English Language Proficiency Standards, Levels 2, 3 and 4. Required: Student Petition.

OC NCT	ESOL-046-01	350371	TTH				9-11:50 AM	
	K. LONG				$0.00	$0.00	$70.00	$70.00
	Required: Student Petition.							
HAR NCT	ESOL-046-06	350373	TTH				6-8:50 PM	
	J. STENSETH				$0.00	$0.00	$70.00	$70.00
	Required: Student Petition.							

ESOL-053 ADVANCED COMMUNICATION SKILLS 2, 0 CREDIT

English language learners practice speaking and listening strategies for effective communication for discussions, interviews, presentations, and note-taking to improve fluency in speaking and listening. Students will study the important effect intonation and body language have on meaning, build vocabulary and critical thinking skills, and develop confidence in speaking with purpose. The focus of this course is to prepare students for success in the workplace and community. Aligns with the Oregon Adult English Language Proficiency Standards, Level 4 & 5. Required: Student Petition.

OC LCT	ESOL-053-01	350380	MW				9-10:20 AM	
	J. RUEDA				$0.00	$0.00	$30.00	$30.00
	Required: Student Petition.							
HAR LCT	ESOL-053-06	350384	MW				7:30 -8:50 PM	
	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.

HAR LCT	ESOL-054-06	354900	TTH				6-8:50 PM	
	I. FERGUSON				$0.00	$0.00	$70.00	$70.00
	Required: Student Petition.							

ESOL-055 ADVANCED GRAMMAR C, 0 CREDIT

One of a three-part series. English language learners study and practice gerunds, infinitives, and complex sentences with adjective clauses in written and spoken English. Aligns with the Oregon Adult English Language Proficiency Standards, Levels 3 and 4. Required: Student Petition.

OC LCT	ESOL-055-01	354901	MW				10:30 -11:50 AM	
	K. LONG				$0.00	$0.00	$30.00	$30.00
	Required: Student Petition.							
HAR NCT	ESOL-055-06	354902	MW				6-7:20 PM	
	K. LONG				$0.00	$0.00	$30.00	$30.00
	Required: Student Petition.							

ESOL-075 PRONUNCIATION: SOUNDS 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 sounds (phonemes) of American English. Required: Student Petition.

OC LCT	ESOL-075-01	350389	MW				12:30 -1:50 PM	
	K. LONG				$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 NCT	ESOL-082-01	350390						
	L. JOYCE				$0.00	$0.00	$0.00	$0.00
	Required: Student Petition.							
ONL NCT	ESOL-082-06	350391						
	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 NCT	ESOL-083-01	350392						
	L. JOYCE				$0.00	$0.00	$0.00	$0.00
	Required: Student Petition.							
ONL NCT	ESOL-083-06	350394						
	L. JOYCE				$0.00	$0.00	$0.00	$0.00
	Required: Student Petition.							

English Literature

ENG-108 WORLD LITERATURE: EARLY MIDDLE AGES THROUGH THE 18TH CENTURY, 4 CREDITS

Campus Locations:
HAR: Harmony Community Campus
OC: Oregon City Campus
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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
NCT: No-Cost Text

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

Literature of the Early Middle Ages through the 18th Century, 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-108-01	350961				$544.00	$56.00	$0.00	$600.00
	A. WARREN								

ENG-205 BRITISH LITERATURE: ROMANTIC TO CONTEMPORARY, 4 CREDITS

In this class, we read, analyze, and enjoy British literature from 1800 to the current day. We will explore major works, writers, and literary forms through interactive discussions and projects.

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

ONL	ENG-205-01	353428				$544.00	$56.00	$0.00	$600.00
	R. DAVIS								

ENG-213 U.S. LATINX LITERATURE, 4 CREDITS

This course offers a survey of U.S. Latinx literature of various genres and historical periods. Students read and study the literary contributions by writers of varied cultural heritage and will bring theory and literature into conversation about issues in the world, including power, privilege, and cultural perspectives between Latinx populations and the U.S. cultural sphere.

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

OC	ENG-213-01	354881	MW		3-4:50 PM	$544.00	$56.00	$0.00	$600.00
	A. ENCINAS								

ENG-222 CHILDREN'S AND YOUNG ADULT LITERATURE, 4 CREDITS

Surveys the development of the genres of children's and young adult literature, including fairy tales, picture books, classic children's novels, and contemporary young adult novels, studying how these texts reflect their culture's understanding of young readers' psychology, taste, and learning needs over time.

Recommended Prerequisites: Placement in WRD-098 or above

OC HYB NCT	ENG-222-01	353429	T		10-11:50 AM	$544.00	$56.00	$0.00	$600.00
	T. DONNELLY								

ENG-250 GREEK MYTHOLOGY, 4 CREDITS

Explores the historical, cultural, social, and literary significance of Greek myths; views Greek mythology in its historical and geographic positions and in the larger context of Western civilization and literary tradition; considers how studying myth affects and influences reading other works; introduces theoretical approaches to mythology and basic literary elements and terminology.

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

OC LCT	ENG-250-01	350965	MW		1-2:50 PM	$544.00	$56.00	$0.00	$600.00
	J. DAVIS								

ENG-272 WORLD LITERATURE: EARLY MIDDLE AGES THROUGH THE 18TH CENTURY, 4 CREDITS

Literature of the Early Middle Ages through the 18th Century, 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-272-01	350972				$544.00	$56.00	$0.00	$600.00
	A. WARREN								

ENG-296 ADAPTATION: LITERATURE INTO FILM, 4 CREDITS

Explores the genre of film adaptation, or how literary narratives were transformed into films. Focuses on literary genres such as the novel, short stories, plays, and nonfiction to compare them with their film counterparts, and thereby understand the process of translating stories from the page to the screen. Note: This is a literature course and not a writing class.

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

OC	ENG-296-01	350973	TTH		3-4:50 PM	$544.00	$56.00	$0.00	$600.00
	A. ENCINAS								

Environmental Science

ESR-172 INTRODUCTION TO CLIMATE CHANGE, 4 CREDITS

Introduction to climate change, the causes and consequence and efforts to mitigate climate change. The laboratory assignments will focus on applied introductory climate change topics.

Corequisites: ESR-172L

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

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

OC	ESR-172-01	351107	TTH		1-2:20 PM	$544.00	$56.00	$55.00	$655.00
	D. HUFFORD								
	Corequisite: Take 1 of the following ESR-172L-01, ESR-172L-02, ESR-172L-03, ESR-172L-04.								
ONL	ESR-172-02	351111				$544.00	$56.00	$55.00	$655.00
	D. HUFFORD								
	Corequisite: Take 1 of the following ESR-172L-01, ESR-172L-02, ESR-172L-03, ESR-172L-04.								
ONL	ESR-172-03	351112				$544.00	$56.00	$55.00	$655.00
	D. HUFFORD								
	Corequisite: Take 1 of the following ESR-172L-01, ESR-172L-02, ESR-172L-03, ESR-172L-04.								
ONL	ESR-172-10	351113				$544.00	$56.00	$55.00	$655.00
	S. BALLEW								
	Corequisite: Take the following ESR-172L-10.								

ESR-172L INTRODUCTION TO CLIMATE CHANGE LAB, 0 CREDIT

Lab course for ESR-172

Corequisites: ESR-172

OC	ESR-172L-01	351114	T		9-11:50 AM	$0.00	$0.00	$0.00	$0.00
	G. BURGESS								
	Corequisite: Take 1 of the following ESR-172-01, ESR-172-02, ESR-172-03.								
OC	ESR-172L-02	351117	W		9-11:50 AM	$0.00	$0.00	$0.00	$0.00
	D. HUFFORD								
	Corequisite: Take 1 of the following ESR-172-01, ESR-172-02, ESR-172-03.								
OC	ESR-172L-03	351118	W		1-3:50 PM	$0.00	$0.00	$0.00	$0.00
	D. HUFFORD								
	Corequisite: Take 1 of the following ESR-172-01, ESR-172-02, ESR-172-03.								
OC	ESR-172L-04	351119	TH		2:30 -5:20 PM	$0.00	$0.00	$0.00	$0.00
	D. HUFFORD								
	Corequisite: Take 1 of the following ESR-172-01, ESR-172-02, ESR-172-03.								

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HAR	ESR-172L-10	351121	TH			6-8:50 PM	
	S. BALLEW			$0.00	$0.00	$0.00	$0.00
	Corequisite: Take the following ESR-172-10.						

Ethnic Studies

ES-221 INTRODUCTION TO BLACK STUDIES, 4 CREDITS

This is an introductory and survey course which analyzes factors that helped mold the African American experience, beginning with pre-colonial Africa to US contemporary socio-political, cultural, educational, and economic issues relevant to descendants of the African diaspora. Provides counter narratives to dominant perspectives on race, ethnicity, and Black identity.

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

OC HYB NCT	ES-221-01	350977	T			1-2:50 PM	
	L. MARTINEZ			$544.00	$56.00	$0.00	$600.00

ES-231 INTRODUCTION TO SOUTHEAST ASIAN AND SOUTH PACIFIC ISLAND DIASPORA STUDIES, 4 CREDITS

This course will examine key migration and dispersion factors, and cultural adjustment and resettling challenges of the Southeast Asian and Pacific Island Diaspora in the United States from the late 19th Century through the present. These analyses will center Southeast Asian and Pacific Island counternarrative and ethnography through literature, history, anthropology, and political scholarship.

Prerequisites: WRD-098

Recommended Prerequisites: WR-121Z

ONL NCT	ES-231-01	350978					
	R. MOFFETT			$544.00	$56.00	$0.00	$600.00

Family Studies

HDF-225 PRENATAL, INFANT & TODDLER DEVELOPMENT, 3 CREDITS

Explores the principles of child development, prenatal through three years of age. Emphasis will be placed on the physical, cognitive, and social-emotional development of young children. The impact of family dynamics, culture and socio-economic status on children's development will be explored.

ONL LCT	HDF-225-01	351095					
	D. HENDRICKS			$408.00	$42.00	$0.00	$450.00

HDF-225ES DESARROLLO DE LAS ETAPAS PRENATAL, INFANTES Y DE NIÑOS PEQUEÑOS, 4 CREDITS

Se enfoca en la exploración del desarrollo y factores que influyen áreas relacionadas con lo físico, cognitivo y socio-emocional en los niños desde la etapa prenatal hasta los tres años de edad. Se examinarán teorías relacionadas con estas etapas, así como la influencia del lenguaje y la cultura en el desarrollo y crianza.

REM ESPAÑOL	HDF-225ES-01	351098	W			6-7:50 PM	
	R. TORRES			$544.00	$56.00	$0.00	$600.00
	La clase se reúne seis miércoles por Zoom de 6:00-7:50pm. (1/6, 1/20, 2/3, 2/17, 3/3, 3/17).						

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 LCT ESPAÑOL	HDF-247ES-01	351099	W			6-7:50 PM	
	Y. SANCHEZ			$544.00	$56.00	$0.00	$600.00
	La clase se reúne seis miércoles por Zoom de 6:00-7:50pm. (1/6, 1/20, 2/3, 2/17, 3/3, 3/17).						

HDF-260 UNDERSTANDING CHILD ABUSE AND NEGLECT, 3 CREDITS

In this course, students will receive an overview of child abuse and neglect. Students will examine the types and causes of abuse, abused children, abusive parents, treatment, education and prevention, and resources available to assist children and families. An emphasis is placed on intervention and mandatory reporting, as well as risks and outcomes. This course discusses the investigation process of child welfare and forensic interviewing of abused children. Students will also learn about the signs and symptoms of abuse and how trauma impacts an individual's health across a lifetime.

OC HYB	HDF-260-01	351105	T			10-11:50 AM	
	C. BAKER			$408.00	$42.00	$0.00	$450.00
	Meets in-person on five Tuesdays from 10:00am to 11:50am. (1/5, 1/19, 2/2, 2/16, 3/2).						

Fire Science (Wildland)

FRP-110 BASIC WILDLAND FIRE INVESTIGATION (FI-110), 1 CREDIT

An introduction to the roles and responsibilities of wildland firefighters in determining a wildland fire origin. Students will identify the wildland fire categories, wildland fire behavior and the initial observations made by the firefighter responding to and arriving at a wildland fire. The primary emphasis of this course is to teach sound wildland fire observations and origin scene protection practices that enable first responders to a wildland fire scene to perform proper origin scene protection procedures.

Prerequisites: FRP-130 (S-130/S-190)

OC HYB	FRP-110-01	350982	F			8-5:00 PM	
	J. GULLEY			$136.00	$14.00	$25.00	$175.00
	Meets: 2/26.						

FRP-112 INTRODUCTION TO CHAINSAW OPERATIONS, 3 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), FRP-249 (L-280), FRP-250, and FRP-255

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

OC	FRP-112-01	354961	W			8-1:30 PM	
	J. GULLEY			$408.00	$42.00	$225.00	$675.00
	Meets: 1/4-2/10.						

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ESPAÑOL: Enseñado en español
LCT: Low-Cost Text
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Course No | Course Title, Credits | Section No / Instructor | Crs Reg. | Days (M,T,W,TH.F,S,SU) / Tuition | Time / Fee | Crs. Fee | Total

FRP-130 INTRODUCTION TO WILDLAND FIREFIGHTING (S-130/S-190), 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 and S-190. This course also includes the Work Capacity Test (WCT) which is needed for employment. Completion of firefighter field day is required to pass this course.

Corequisites: FRP-140 and FRP-150

OC	FRP-130-01	350984	TTH		10-4:00 PM		
	B. ESTES		$272.00	$28.00	$50.00	$350.00	
	Meets: 1/5-1/14.						

FRP-140 INTRODUCTION TO WILDLAND FIREFIGHTING LAB, 1 CREDIT

This hands-on laboratory course provides applied experience in foundational wildland firefighting principles, skills, and safety practices aligned with the National Wildfire Coordinating Group (NWCG) S-130 and S-190 standards. Students will gain practical proficiency in wildland fire behavior interpretation, fireline tools and equipment, firefighter safety, and basic suppression techniques through field-based exercises, simulations, and scenario-based training. Emphasis is placed on understanding fire environment factors, reading fuel types, implementing safe work practices, applying teamwork skills, and reinforcing situational awareness under varying conditions. Successful completion prepares students for entry-level fieldwork and supports readiness for further wildland fire qualifications.

Corequisites: FRP-130 (S-130/S-190)

OC	FRP-140-01	354958	TTH		10-4:00 PM		
	B. ESTES		$136.00	$14.00	$50.00	$200.00	
	Meets: 1/19-2/4.						

FRP-144 INTRO TO LAND NAVIGATION, 2 CREDITS

Students will learn how to make and document field observations, how to produce digital and paper maps, and how to collect data and navigate using a map, compass, GPS, and mobile device.

OC	FRP-144-01	354962	FSSU		8-4:30 PM		
	J. GULLEY		$272.00	$28.00	$50.00	$350.00	
	Meets: 2/5-2/7.						

FRP-150 CAREERS IN WILDLAND FIRE (L-180, S-110), 2 CREDITS

This course introduces students to the wildland fire profession through an examination of the wildland fire season, organizational structure, and human factors influencing firefighter performance. Curriculum is aligned with National Wildfire Coordinating Group (NWCG) S-110 and L-180 standards and incorporates analysis of the previous fire season to provide current, real-world context. Students will explore wildland fire agency roles, operational culture, and multiple career pathways within federal, state, local, and private fire organizations. Emphasis is placed on foundational professionalism, decision-making, communication, and accountability in the wildland fire environment. The course also prepares students for entry into the wildland fire workforce through resume development, hiring process navigation, and participation in fire hiring events.

Corequisites: FRP-130 (S-130/S-190)

OC	FRP-150-01	354960	TTH		10-4:00 PM		
	J. GULLEY		$272.00	$28.00	$20.00	$320.00	
	Meets: 2/9-2/18.						

FRP-200 BASIC INCIDENT COMMAND SYSTEM (I-100, I-200, IS-700, IS-800), 1 CREDIT

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	FRP-200-01	350987	FS		10-4:00 PM		
	J. GULLEY		$136.00	$14.00	$0.00	$150.00	
	Meets: 2/23.						

FRP-212 WILDFIRE POWER SAWS (S-212), 3 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), FRP-250

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

OC HYB	FRP-212-01	354965	FSSU		8-5:00 PM		
	J. GULLEY		$408.00	$42.00	$225.00	$675.00	
	Required: Student Petition. Meets: 1/8-1/10.						

FRP-215 FIRE OPERATIONS IN THE URBAN INTERFACE (S-215), 2 CREDITS

Assess homes and structures located in and around forest, grass and brush lands (urban interface) for vulnerability to a wildland fire.

Prerequisites: FRP-130 (S-130/S-190) and FRP-131 (S-131)

OC	FRP-215-01	350989	FS		8:30 -5:00 PM		
	K. GEARY		$272.00	$28.00	$20.00	$320.00	
	Meets: 3/13-3/14.						

FRP-244 WILDERNESS II: BASIC LAND NAVIGATION (S-244), 3 CREDITS

Students will learn how to make and document field observations, how to produce hand drawn and GPS field maps, and how to navigate using a map, compass, and GPS.

Prerequisites: FRP-130 (S-130/S-190)

Recommended Prerequisites: FRP-290 (S-290)

OC HYB LCT	FRP-244-01	350991	THFSSU		8-5:00 PM		
	J. GULLEY		$408.00	$42.00	$50.00	$500.00	
	M. SNYDER						
	Meets: 1/28-1/31.						

FRP-246 WILDERNESS IV: BACKCOUNTRY CPR/FIRST AID/AED, 4 CREDITS

Introduction to general medical concepts and basic life support skills. It is targeted to the outdoor enthusiast on day trips or short adventures. Course results in CPR, first aid & AED certification and Wilderness First Aid certification.

OC	FRP-246-01	350993	F		5-8:30 PM		
			SSU		8:30 -5:00 PM		
	S. POET		$544.00	$56.00	$50.00	$650.00	
	Meets: 1/8-1/17.						

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.

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Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC	FRP-249-01	350995	FS	8-5:00 PM				
	J. GULLEY				$272.00	$28.00	$50.00	$350.00
	Meets: 2/19-2/20.							

FRP-250 WILDERNESS VI: BASIC TOOL USE AND CARE, 1 CREDIT

Selection, operation, and maintenance of chain saws and hand tools to include shovels, Pulaski, single and double bit axes, hand saws, and various other tools used in forestry, firefighting and survival activities. Class includes a lab component.

OC	FRP-250-01	350996	M	9-10:50 AM				
	J. GULLEY				$136.00	$14.00	$125.00	$275.00
OC	FRP-250-02	350997	M	11-12:50 PM				
	J. GULLEY				$136.00	$14.00	$125.00	$275.00

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

OC	FRP-255-01	350999	TTH	8-9:50 AM				
	B. ESTES				$272.00	$28.00	$30.00	$330.00

FRP-265 WILDLAND FIRE PREVENTION EDUCATION 1 (P-101), 3 CREDITS

This course was developed as part of a multi-course national curriculum covering wildfire prevention. It is designed to provide a basic introduction of fire prevention principles and activities for fire prevention specialists, fire managers, public information officers and others who have wildland fire prevention, education, or mitigation responsibilities. Course equivalent to NWCG P-101 Fire Prevention Education 1.

Prerequisites: FRP-130 (S-130/S-190)

OC	FRP-265-01	351001	T	8-5:00 PM				
	J. GULLEY				$408.00	$42.00	$0.00	$450.00
	Meets: 3/2-3/11.							

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 LCT	FYE-101-01	351002	MW	1-1:50 PM				
	TBA				$272.00	$28.00	$12.00	$312.00
	Contact: counseling@clackamas.edu.							
OC LCT	FYE-101-02	351004	W	10-11:50 AM				
	TBA				$272.00	$28.00	$12.00	$312.00
	Contact: counseling@clackamas.edu.							
OC LCT	FYE-101-03	351005	TH	10-11:50 AM				
	TBA				$272.00	$28.00	$12.00	$312.00
	Contact: counseling@clackamas.edu.							
ONL LCT	FYE-101-04	351006						
	TBA				$272.00	$28.00	$12.00	$312.00
	Contact: counseling@clackamas.edu.							

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 LCT ESPAÑOL	FYE-101ES-01	351012	F	6-7:50 PM				
	TBA				$272.00	$28.00	$12.00	$312.00
	Contact: counseling@clackamas.edu.							

Food & Nutrition

FN-110 PERSONAL NUTRITION, 3 CREDITS

This course explores how nutrition affects health and fitness for the individual and the family. Students apply knowledge of nutrition guidelines to analyze personal diet and improve current food preparation and habits. It is a basic nutrition course for students with little or no science background.

ONL	FN-110-01	350249						
	T. SCOLLARD				$408.00	$42.00	$97.03	$547.03
	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	FN-225-01	350250						
	T. SCOLLARD				$544.00	$56.00	$236.17	$836.17
	Online textbook included in section fees.							
ONL	FN-225-02	350251						
	J. PAVLINAC				$544.00	$56.00	$236.17	$836.17
	Online textbook included in section fees.							
ONL	FN-225-03	350252						
	T. SCOLLARD				$544.00	$56.00	$236.17	$836.17
	Online textbook included in section fees.							

General Development Education (GED)

Campus Locations:
HAR: Harmony Community Campus
OC: Oregon City Campus
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Distance Education Notification:
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VAR: Variable credit class

ESPAÑOL: Enseñado en español
LCT: Low-Cost Text
NCT: No-Cost Text

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. Variable Hours: 40-66 hours. Required: Student Petition.

REM LCT ESPAÑOL	GED-011-01	351016	MW			5:30 -7:50 PM	
	A. ARISTIZABAL		$0.00	$0.00	$50.00	$50.00	
	Requerido: petición del estudiante. Contact: Adriana Aristizabal at 503-594-3916.						
HAR LCT ESPAÑOL	GED-011-02	351019	TTH			6-8:50 PM	
	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.						

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. Variable Hours: 40-88 hours. Required: Student Petition.

OC LCT	GED-015-17	351024	MW			5:30 -7:50 PM	
	J. NIELSON A. WICKERT		$0.00	$0.00	$50.00	$50.00	
	Required: Student Petition.						
HAR HYB LCT	GED-015-67	351027	MW			10-11:50 AM	
	M. NICKAS		$0.00	$0.00	$60.00	$60.00	
	Required: Student Petition.						
ONL LCT	GED-015-68	351031					
	S. HATSWELL		$0.00	$0.00	$60.00	$60.00	
	Required: Student Petition.						
ONL LCT	GED-015-69	351032					
	TBA		$0.00	$0.00	$60.00	$60.00	
	Required: Student Petition.						
OC LCT	GED-015-80	351033	MTWTH			10-11:50 AM	
	J. NIELSON		$0.00	$0.00	$60.00	$60.00	
	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. Variable Hours: 24-66 hours. Required: Student Petition.

REM LCT ESPAÑOL	GED-049-02	351039	TTH			6-8:50 PM	
	A. ARISTIZABAL		$0.00	$0.00	$50.00	$50.00	
	Requerido: petición del estudiante.						
HAR LCT ESPAÑOL	GED-049-03	351044	MW			9-11:50 AM	
	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 HYB LCT ESPAÑOL	GED-049-04	351046	S			9-11:50 AM	
	M. ROSAS DELGADO		$0.00	$0.00	$30.00	$30.00	
	Requerido: petición del estudiante.						

General Science

GS-104 EARTH SYSTEM SCIENCE, 4 CREDITS

A lab course designed to give an overview of the physical sciences by examining the relationship between physics, chemistry and geology in the natural world. Topics include plate tectonics, the Earth's structure, earthquakes/hazards, mineral chemistry, igneous rocks, and volcanoes/hazards.

Corequisites: GS-104L

Recommended Prerequisites: MTH-065 or placement in MTH-095

REM	GS-104-01	351139	TTH			1-2:20 PM	
	R. COLLINS		$544.00	$56.00	$50.00	$650.00	

GS-104L EARTH SYSTEM SCIENCE LAB, 0 CREDIT

Lab course for GS-104

Corequisites: GS-104

OC	GS-104L-01	351140	M			1-3:50 PM	
	R. COLLINS		$0.00	$0.00	$0.00	$0.00	

GS-107 ASTRONOMY, 4 CREDITS

A lab course including the history of astronomy, the Earth and moon, all planets in our solar system, along with asteroids, meteors and comets.

Corequisites: GS-107L

Prerequisites: MTH-065 or MTH-098 with a C or better or placement in MTH-095

Prerequisites: WRD-090 or placement in WRD-098

ONL LCT	GS-107-01	351141					
	C. SHARON		$544.00	$56.00	$25.00	$625.00	

GS-107L ASTRONOMY LAB, 0 CREDIT

Lab course for GS-107

Corequisites: GS-107

ONL	GS-107L-01	351143					
	C. SHARON		$0.00	$0.00	$0.00	$0.00	

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.

GIS-101 MAPS AND GEOSPATIAL TECHNOLOGY, 4 CREDITS

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

This course provides 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, geographic information systems, spatial data, global navigation satellite systems, remote sensing, terrain analysis, web maps, and the geospatial industry.

OC HYB | GIS-101-01 | 351058 | W | 10-11:50 AM | A. ARMEN | $544.00 | $56.00 | $30.00 | $630.00

GIS-201 INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS, 4 CREDITS

This course explores fundamental geographic information systems (GIS) concepts utilizing hands-on application through various laboratory exercises with industry-standard ArcGIS software. The class explores basic map principles, cartographic design, geodesy, and geospatial data manipulation while exploring ArcGIS Online to create, display, query, relate, classify, and analyze spatial data to create maps and answer geographic questions.

ONL | GIS-201-01 | 351060 | A. ARMEN, L. COX | $544.00 | $56.00 | $40.00 | $640.00

GIS-202 GIS APPLICATIONS, 4 CREDITS

This class follows the introductory course as a continuation of Geographic Information Systems (GIS). Topics explored include working with geodatabases, topology, vector and raster analysis, and creating and editing data. Students also practice key GIS project management processes, workflows, and best practices through an analysis project.

Recommended Prerequisites: GIS-201

ONL | GIS-202-01 | 351061 | A. ARMEN | $544.00 | $56.00 | $40.00 | $640.00

GIS-236 PROGRAMMING FOR GIS, 4 CREDITS

An introduction to computer programming and Object Orientated Programming (OOP) with Python. Covers basic computer programming concepts including data types, loops, control structures, functions, classes, and program development. Use Python for problem solving by creating basic scripts for more advanced object-oriented programs.

ONL | GIS-236-01 | 351063 | L. COX | $544.00 | $56.00 | $30.00 | $630.00

GIS-260 GIS AND THE ENVIRONMENT, 4 CREDITS

This course covers environmental science and how GIS is used in the field. Each week, a new topic will be explored, including climate change, wildfires, demography for public policy, water resource management, and more.

ONL | GIS-260-01 | 354966 | A. ARMEN | $544.00 | $56.00 | $0.00 | $600.00

GIS-280 GIS/CWE, 2-6 CREDITS (VAR)

Cooperative work experience. Provides students with on-the-job work experience in the field of geographic information systems. This class is intended for students who are completing their Geographic Information Systems (GIS) Technology Certificate. Required: Student Petition.

Corequisites: CWE-281
Prerequisites: GIS-201

OC | GIS-280-01 | 351065 | A. ARMEN | $816.00 | $84.00 | $45.00 | $945.00V
Required: Student Petition.

GIS-286 REMOTE SENSING, 4 CREDITS

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. Students explore applications of remote sensing using real-world examples and data.

ONL | GIS-286-01 | 354963 | A. ARMEN, L. COX | $544.00 | $56.00 | $20.00 | $620.00

Geography

GEO-100 INTRODUCTION TO PHYSICAL GEOGRAPHY, 4 CREDITS

Analyzes the physical elements of the Earth's surface and atmosphere. Focuses on natural processes that create physical diversity on the Earth including weather and climate, biosphere, soils and landforms and explores how these influence human cultural settlement activities.

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

ONL | GEO-100-01 | 351050 | C. FELDMAN | $544.00 | $56.00 | $99.99 | $699.99
Online textbook included in section fees.

GEO-110 CULTURAL & HUMAN GEOGRAPHY, 4 CREDITS

Introduces geographical perspectives on human population, agriculture, political pattern, language, religion, folk culture, popular culture, ethnic culture, urban development, industry, and transportation as these play out on the diverse landscapes of the world.

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

OC HYB NCT | GEO-110-01 | 351051 | T | 1-2:50 PM | A. ARMEN | $544.00 | $56.00 | $0.00 | $600.00

GEO-208 GEOGRAPHY OF THE UNITED STATES & CANADA, 4 CREDITS

Provides students with the fundamental geographical knowledge of the United States and Canada and their paths of development. Presents the spatial arrangement of culture, economics, politics, and the natural environment.

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

ONL | GEO-208-01 | 351054 | C. FELDMAN | $544.00 | $56.00 | $0.00 | $600.00

GEO-280 GEOGRAPHY/CWE, 2-6 CREDITS (VAR)

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

Corequisites: CWE-281

OC NCT | GEO-280-01 | 351055 | C. FELDMAN, D. LOUGEE | $816.00 | $84.00 | $45.00 | $945.00V
Required: Student Petition. Corequisite: Take the following CWE-281-06.

Geology

G-102 GENERAL GEOLOGY, 4 CREDITS

For non-science majors. An introductory lab course that explores the Earth's systems and surface features. Systems/processes/hazards explored include rivers, mass wasting, glaciers, groundwater, and deserts. Labs focus on geologic and topographic maps and how they are used to understand geologic features and local geology.

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Corequisites: G-102L
Recommended Prerequisites: WRD-090 or placement in WRD-098

OC	G-102-01	351123	MW		10-11:20 AM				
	A. KOTASH			$544.00	$56.00	$50.00	$650.00		
	Corequisite: Take 1 of the following G-102L-01, G-102L-02.								
OC	G-102-02	351124	TTH		10-11:20 AM				
	A. KOTASH			$544.00	$56.00	$50.00	$650.00		
	Corequisite: Take 1 of the following G-102L-01, G-102L-02.								
REM	G-102-10	351126	T		6-8:50 PM				
	J. WOODCOCK			$544.00	$56.00	$50.00	$650.00		
	Corequisite: Take the following G-102L-10.								

G-102L GENERAL GEOLOGY LAB, 0 CREDIT

Lab course for G-102
Corequisites: G-102

OC	G-102L-01	351127	T		1-3:50 PM				
	A. KOTASH			$0.00	$0.00	$0.00	$0.00		
	Corequisite: Take 1 of the following G-102-01, G-102-02.								
OC	G-102L-02	351129	TH		1-3:50 PM				
	A. KOTASH			$0.00	$0.00	$0.00	$0.00		
	Corequisite: Take 1 of the following G-102-01, G-102-02.								
HAR	G-102L-10	351130	TH		6-8:50 PM				
	J. WOODCOCK			$0.00	$0.00	$0.00	$0.00		
	Corequisite: Take the following G-102-10.								

G-202 GENERAL GEOLOGY, 4 CREDITS

For science majors. A lab course that explores surface features of the Earth and the systems that form those features. Systems/processes/hazards explored include rivers, mass wasting, glaciers, groundwater and deserts. Topographic/geologic maps are used to understand geologic features and local geology.
Prerequisites: G-201 with a C or better
Corequisites: G-202L

OC	G-202-01	351132	MW		10-11:20 AM				
	A. KOTASH			$544.00	$56.00	$50.00	$650.00		
	Corequisite: Take 1 of the following G-202L-01, G-202L-02.								
OC	G-202-02	351133	TTH		10-11:20 AM				
	A. KOTASH			$544.00	$56.00	$50.00	$650.00		
	Corequisite: Take 1 of the following G-202L-01, G-202L-02.								
REM	G-202-10	351134	T		6-8:50 PM				
	J. WOODCOCK			$544.00	$56.00	$50.00	$650.00		
	Corequisite: Take the following G-202L-10.								

G-202L GENERAL GEOLOGY LAB, 0 CREDIT

Lab course for G-202
Corequisites: G-202

OC	G-202L-01	351135	T		1-3:50 PM				
	A. KOTASH			$0.00	$0.00	$0.00	$0.00		
	Corequisite: Take 1 of the following G-202-01, G-202-02.								
OC	G-202L-02	351136	TH		1-3:50 PM				
	A. KOTASH			$0.00	$0.00	$0.00	$0.00		
	Corequisite: Take 1 of the following G-202-01, G-202-02.								
HAR	G-202L-10	351138	TH		6-8:50 PM				
	J. WOODCOCK			$0.00	$0.00	$0.00	$0.00		
	Corequisite: Take the following G-202-10.								

Health

HE-163 BODY & DRUGS I: INTRODUCTION TO ABUSE & ADDICTION, 3 CREDITS

The first of a four-course sequence, this course examines the history of the use of addictive drugs, the definition of addiction, psychosocial and neurobiological causes of drug and behavioral addiction, addictive drug classifications, and the history of/introduction to addiction treatment, and access and utilize effective resources to improve and maintain mental and physical wellbeing.

ONL NCT	HE-163-01	351144							
	T. PANTAGES					$408.00	$42.00	$0.00	$450.00
ONL NCT	HE-163-02	351145							
	T. PANTAGES					$408.00	$42.00	$0.00	$450.00

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 NCT	HE-164-01	351146							
	T. PANTAGES					$408.00	$42.00	$0.00	$450.00

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	HE-201-01	351148							
	T. NELSON					$408.00	$42.00	$0.00	$450.00

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	HE-204-01	351149							
	J. BUEL					$408.00	$42.00	$0.00	$450.00

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	HE-223-01	351152							
	J. BUEL					$408.00	$42.00	$0.00	$450.00

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 NCT	HE-249-01	351155	MW		1-2:20 PM				
	K. WOODS					$408.00	$42.00	$0.00	$450.00

HE-250 PERSONAL HEALTH, 3 CREDITS

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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	HE-250-04	351158					
	J. RHODEN			$408.00	$42.00	$0.00	$450.00
ONL	HE-250-05	351161					
	J. RHODEN			$408.00	$42.00	$0.00	$450.00
	Meets: 2/15-3/20.						

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 LCT	HE-252-03	351163					
	T. NELSON			$408.00	$42.00	$35.00	$485.00
ONL LCT	HE-252-05	351164					
	K. ARIZO			$408.00	$42.00	$35.00	$485.00

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 NCT	HPE-295-01	351217					
	J. RHODEN			$408.00	$42.00	$30.00	$480.00
ONL NCT	HPE-295-02	351219					
	T. NELSON			$408.00	$42.00	$30.00	$480.00

HPE-295ES SALUD Y APTITUD FÍSICA PARA LA VIDA, 3 CREDITS

Este curso analiza la interacción entre las nueve dimensiones del bienestar (la salud). Todas las tareas relacionadas se realizan en línea. Los estudiantes evaluarán su nivel de los componentes de la aptitud física relacionados con la salud y desarrollarán un plan de ejercicios para mantener o mejorar dicha aptitud física. Se espera que los estudiantes hagan ejercicio 3 horas a la semana como mínimo. Los temas relacionados incluyen lo siguiente: nutrición, reducción del estrés, técnicas de relajación, fijación de metas y control del peso.

Recommended: Examen físico realizado por un médico

ONL ESPAÑOL	HPE-295ES-01	351220					
	E. COLON-CORTES			$408.00	$42.00	$30.00	$480.00

Health Professions

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

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	HP-100-01	350253	TBA				
	S. COOPER			$136.00	$14.00	$15.00	$165.00
	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. In-person date and times: Friday, February 12th at 8:30am - 12:00pm or 1:00pm - 4:30pm.						

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.

HAR HYB	HP-110-01	350255	T			9-11:00 AM	
	S. DAVENPORT			$544.00	$56.00	$186.32	$786.32
	Online textbook included in section fees.						
ONL	HP-110-02	350257					
	W. HARTJE			$544.00	$56.00	$186.32	$786.32
	Online textbook included in section fees.						
ONL	HP-110-03	350258					
	C. GARNER			$544.00	$56.00	$186.32	$786.32
	Online textbook included in section fees.						

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	HP-120-01	354868					
	S. DAVENPORT			$408.00	$42.00	$0.00	$450.00

HP-130 COMMUNICATIONS AND ETHICAL PRACTICES IN HEALTHCARE SETTINGS, 2 CREDITS

This course will introduce the student to a variety of communications and foundational aspects of patient care of the healthcare professional. Students will be exposed to Electronic Health Records, the importance of documentation and study pertinent laws in a healthcare setting.

Prerequisites: WRD-098 or placement into WR-101

REM	HP-130-01	350259	T			6-7:00 PM	
	C. GARNER			$272.00	$28.00	$0.00	$300.00

High School Diploma (AHSD)

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	Time / Fee	Crs. Fee	Total

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. Variable Hours: 24-60 hours. Required: Student Petition.

HAR HYB NCT	ASE-042-01	350561	W		12:30 -1:20 PM		
	M. NICKAS		$0.00	$0.00	$0.00		$0.00
	Required: Student Petition.						
OC NCT	ASE-042-04	350566	W		3-5:50 PM		
	D. BARE		$0.00	$0.00	$0.00		$0.00
	Required: Student Petition.						

XASE-0001 BASIC ESSENTIAL SKILLS SUPPORT, 0 CREDIT

Offers students academic assessments, coaching, and support to reach basic essential skills competencies necessary for students' program of study. Students utilize computer based material in a self-paced format to improve academic skills, and work with the instructor to develop future plans and set appropriate goals. Students set attainable goals, apply appropriate strategies, and use college resources to meet the competencies necessary to succeed in their academic programs. Variable Hours: 24-40 hours. Required: Student Petition.

OC NCT	XASE-0001-02	351520	MTWTH		10-11:50 AM		
	A. SMITH		$0.00	$0.00	$30.00		$30.00
	Required: Student Petition. Meets: 1/4-2/5.						

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

ONL NCT	HST-101-01	351147					
	P. MCFARLAND		$544.00	$56.00	$0.00		$600.00

HST-102 HISTORY OF WESTERN CIVILIZATION, 4 CREDITS

Origins and development of Western Civilization with an emphasis on Europe from ca. 1300 to 1800.

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

OC HYB NCT	HST-102-01	351150	W		10-11:50 AM		
	P. MCFARLAND		$544.00	$56.00	$0.00		$600.00
ONL NCT	HST-102-02	351151					
	P. MCFARLAND		$544.00	$56.00	$0.00		$600.00

HST-131 HISTORY OF CRIME & PUNISHMENT IN WESTERN CIVILIZATION, 4 CREDITS

Explores the topics of crime and punishment 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

ONL LCT	HST-131-01	351153					
	P. MCFARLAND		$544.00	$56.00	$0.00		$600.00

HST-202Z UNITED STATES HISTORY II, 4 CREDITS

Survey of United States history from the early 1800s to the early 1900s: Jacksonian era, expansion, Industrial Revolution, slavery, Civil War, Reconstruction, Gilded Age, Populism, Imperialism, the Progressive Era, and the First World War.

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

Recommended Prerequisites: HST-201Z

OC	HST-202Z-01	351154	MW		1-2:50 PM		
	J. PARKER		$544.00	$56.00	$0.00		$600.00
ONL	HST-202Z-02	351156					
	J. PARKER		$544.00	$56.00	$0.00		$600.00

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

OC	HST-280-01	351157					
	P. MCFARLAND		$816.00	$84.00	$45.00		$945.00V
	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

HOR-122 GREENHOUSE I, 3 CREDITS

Environmental influences on plant growth, crop scheduling, greenhouse structures and equipment. Emphasis on foliage and flowering potted plant production.

OC	HOR-122-01	351165	TH		8-11:50 AM		
	G. LOEFFLER		$408.00	$42.00	$50.00		$500.00

HOR-131 TREE & SHRUB PRUNING, 3 CREDITS

Emphasis on dormant pruning of fruiting and ornamental plants. Pruning and training techniques for grapes, fruit trees, and both evergreen and deciduous ornamental trees and shrubs. Basic woody plant anatomy, growth and development.

OC	HOR-131-01	351168	T		8-11:50 AM		
	D. FRANEK		$408.00	$42.00	$40.00		$490.00

HOR-136 ORGANIC FARMING PRACTICUM/WINTER, 3 CREDITS

Essential organic farming practices, including seasonal activities such as ground preparation and planning for crop production. Also covers farm business structures, financial management, recordkeeping, and marketing and distribution techniques. Field trips to area farms included. Class lecture, field trips, and lab are essential components of this course. This format has been selected to create a hands-on experience for each student in seasonal crop production.

OC HYB LCT	HOR-136-01	351170	T		8-11:50 AM		
	D. ROSTAD		$408.00	$42.00	$60.00		$510.00

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HOR-140 SOILS, 3 CREDITS

Soil characteristics and management, including nutritional elements and the relationship between the soil and plant growth.

OC LCT	HOR-140-01	351171	T		1-3:50 PM				
	D. FRANEK					$408.00	$42.00	$65.00	$515.00

HOR-213 COMPUTER-AIDED LANDSCAPE DESIGN, 3 CREDITS

Develop skills with Computer-aided design (CAD) software for creating landscape designs. Practice techniques utilized in common CAD programs used in the landscape industry.

Recommended Prerequisites: CS-120 or comparable computer skills

OC HYB	HOR-213-01	354860	MTH		6-8:00 PM				
	T. HEALEA					$408.00	$42.00	$60.00	$510.00
	Meets: In-person Monday 1/4. Remote for the remainder of the term. Computer lab access available during class times.								

HOR-216 INTEGRATED PEST MANAGEMENT, 3 CREDITS

Learn the components of, and develop an Integrated Pest Management (IPM) plan for landscape, nursery, greenhouse or organic farming. The plan will incorporate pest detection, control practices and an evaluation of effectiveness.

OC LCT	HOR-216-01	351172	W		9-11:50 AM				
	S. CROSSWHITE					$408.00	$42.00	$30.00	$480.00

HOR-222 HORTICULTURAL COMPUTER APPLICATIONS, 2 CREDITS

Utilizes database, spreadsheet, word-processing, PowerPoint, social media and other computer programs for record keeping and management and marketing for horticulture businesses.

Recommended Prerequisites: CS-120 or comparable computer skills

OC HYB LCT	HOR-222-01	351175	M		10-11:50 AM				
	A. CHASTAIN					$272.00	$28.00	$25.00	$325.00
	Meets: In-person Monday 1/5. Online with optional in-person labs for remainder of term. Class has assignment options for varying skill levels. If you feel you have extensive computer skills please contact april.chastain@clackamas.edu to discuss possibly waiving the class.								

HOR-223 APPLIED PLANT SCIENCE, 4 CREDITS

An overview of the practical aspects of plant growth and development, classification systems, plant breeding and environmental factors in managing plant growth.

OC LCT	HOR-223-01	354861	MW		1-2:50 PM				
	C. KONIECZKA					$544.00	$56.00	$30.00	$630.00

HOR-227 PLANT IDENTIFICATION/WINTER, 4 CREDITS

Identification of conifers and broadleaf evergreens, shrubs, and groundcovers, including their cultural requirements in the landscape.

OC LCT	HOR-227-01	351177	T		8-11:50 AM				
	J. WENTWORTH-PLATO					$544.00	$56.00	$45.00	$645.00
OC HYB LCT	HOR-227-02	351179	W		6-8:30 PM				
	J. WENTWORTH-PLATO					$544.00	$56.00	$45.00	$645.00

HOR-229 INTRODUCTION TO LANDSCAPE DESIGN, 3 CREDITS

Introduction to landscape planning, including basic drafting skills, grading, drainage, and site planning.

OC HYB	HOR-229-01	351181	T		6-9:00 PM				
			S		9-12:00 PM				
	A. CHASTAIN					$408.00	$42.00	$45.00	$495.00
	Required field trip Sat 1/23.								

HOR-230 EQUIPMENT OPERATION & MAINTENANCE, 2 CREDITS

The selection, safe operation, and maintenance of power driven machines in horticultural operations. Includes hands on experience with mowing equipment, rototillers, chain saws, edgers, shears, tractors, chippers, and skid steer.

Corequisites: HOR-230L

ONL	HOR-230-01	351185							
	S. CROSSWHITE					$272.00	$28.00	$75.00	$375.00

HOR-230L EQUIPMENT OPERATION & MAINTENANCE LAB, 0 CREDIT

Lab course for HOR-230

Corequisites: HOR-230

OC	HOR-230L-01	351187	TH		9-11:50 AM				
	S. CROSSWHITE E. ROBERTS					$0.00	$0.00	$0.00	$0.00
OC	HOR-230L-02	351189	TH		1-3:50 PM				
	S. CROSSWHITE E. ROBERTS					$0.00	$0.00	$0.00	$0.00

HOR-231 IRRIGATION DESIGN, 3 CREDITS

Principles of irrigation system design for various situations, including underground, above-ground, residential, commercial, and urban farm systems.

OC HYB	HOR-231-01	351191	W		6-8:50 PM				
	A. CHASTAIN					$408.00	$42.00	$45.00	$495.00

HOR-237 DISEASE IDENTIFICATION, 2 CREDITS

Identification of ornamental plant diseases which occur in greenhouses, landscapes, nurseries, and farms.

OC	HOR-237-01	351192	W		3-4:50 PM				
	E. ROBERTS					$272.00	$28.00	$15.00	$315.00

HOR-239 TREE CLIMBER TRAINING, 1 CREDIT

The safe use of rope and saddle tree climbing procedures will be covered through lecture, discussion, and field practice. For beginner to moderately experienced climbers. May be repeated for up to 3 credits.

OC LCT	HOR-239-01	351193	F		8-12:45 PM				
	E. ROBERTS					$136.00	$14.00	$60.00	$210.00
	Meets: 1/4-2/5.								

HOR-251 HERBAL PRODUCTS, 1 CREDIT

Instruction in making herbal teas, skin lotion, tincture, infused oil, vinegar, spritzers and herbal mixes. Instruction includes the use of specific ingredients, methods for effective usage and storage, and their importance.

OC LCT	HOR-251-01	351194	F		8-11:50 AM				
	D. ROSTAD					$136.00	$14.00	$60.00	$210.00
	Meets: 2/12-3/12.								

HOR-260 ARBORICULTURE II, 3 CREDITS

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This course builds on HOR-225, preparing students for the International Society of Arboriculture Certified Arborist exam. We focus on ways to assess trees for health, risk, and value in our urban environment as well as how to communicate these findings with clients and peers. This course includes crew and climber safety.

Prerequisites: HOR-225

OC | **HOR-260-01** | **351195** | **T** | **2-4:50 PM**
J. WENTWORTH-PLATO | $408.00 | $42.00 | $40.00 | $490.00

HOR-280 HORTICULTURE/CWE, 3 CREDITS

Cooperative work experience. 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.

Corequisites: CWE-281

OC LCT | **HOR-280-01** | **351196**
G. LOEFFLER | $408.00 | $42.00 | $45.00 | $495.00
Required: Student Petition. Corequisite: Take the following CWE-281-06.

HOR-281 HORTICULTURE/CWE, 6 CREDITS

Cooperative work experience. 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.

Corequisites: CWE-281

OC LCT | **HOR-281-01** | **351203**
G. LOEFFLER | $816.00 | $84.00 | $45.00 | $945.00
Required: Student Petition. Corequisite: Take the following CWE-281-06.

HOR-282 HORTICULTURE/CWE, 3 CREDITS

Cooperative work experience. 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.

Corequisites: CWE-281

Required: Students are expected to work a minimum of 90 job site hours

OC LCT | **HOR-282-01** | **351206**
G. LOEFFLER | $408.00 | $42.00 | $45.00 | $495.00
Required: Student Petition. Corequisite: Take the following CWE-281-06.

HOR-285 ORGANIC FARMING/CWE, 3 CREDITS

Cooperative work experience. 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.

Corequisites: CWE-281

Required: Students are expected to work a minimum of 90 job site hours

OC LCT | **HOR-285-01** | **351211**
G. LOEFFLER | $408.00 | $42.00 | $45.00 | $495.00
Required: Student Petition. Corequisite: Take the following CWE-281-06.

HOR-290 SPECIAL TOPICS IN HORTICULTURE, 1 CREDIT

This course gives students an opportunity to gain knowledge in a specific area relevant to the field of horticulture, landscaping, arboriculture or organic farming. This topic will be pulled from a comprehensive list of areas identified by horticulture professionals as having importance for students pursuing work in the field. May be repeated for up to 6 credits. Required: Student Petition.

OC HYB LCT | **HOR-290-01** | **351214** | **TWTHFS M** | **3-4:50 PM**
J. WENTWORTH-PLATO | $136.00 | $14.00 | $200.00 | $350.00
Required: Student Petition. Meets: Mondays 1/4, 1/25, 2/22, & 3/15; plus additional hours online. Special Topic: Prepare for National Collegiate Landscape Competition held at Michigan State University, East Lansing, MI, traveling March 16-20, 2027.

XHOR-0004 BEEKEEPING SCHOOL, 0 CREDIT

Beekeeping is growing in popularity because of its importance in pollination, honey production, and as a relaxing hobby. This 2 day workshop is intended to prepare new and beginner beekeepers with knowledge, demonstrations, and lists of resources. Topics will include; basic bee biology, proper equipment, handling of bees, hive pest and disease control, feeding, and more. Co-sponsored by the Portland Metro Beekeepers Association.

OC | **XHOR-0004-01** | **351584** | **S** | **9-3:00 PM**
TBA
Required: Student Petition. Meets: Saturdays 2/6 & 2/13. Fee $60. Register at https://bit.ly/horteventbrite Contact Sarah at sarah.reck@clackamas.edu with questions.

XHOR-0044 GARDEN AS IF LIFE DEPENDS ON IT: A BIODIVERSE HABITAT LANDSCAPE, 0 CREDIT

Learn practical, science-based strategies to restore soil health and support biodiversity. Explore how to integrate native plants into urban and suburban landscapes while providing wildlife with food, water, shelter, and places to raise their young.

OC | **XHOR-0044-01** | **354934** | **S** | **10-2:30 PM**
TBA
Required: Student Petition. Meets: 3/13. Fee: $40. Eventbrite registration at https://bit.ly/horteventbrite Contact Sarah at sarah.reck@clackamas.edu with questions.

XHOR-C06B PESTICIDE CORE TRAINING/WINTER, 0.40 CEUS

This training qualifies for 4 CORE recertification credits as required by Oregon Department of Agriculture. Fulfills yearly recertification requirement for Private Pesticide license holders, and can be used towards total needed for Public and Commercial license requirements. Our Fall and Winter courses are different, so both will count towards recertification in the same year.

OC | **XHOR-C06B-01** | **351591** | **F** | **1-4:50 PM**
TBA
Required: Student Petition. Meets: 2/19. Fee: $45. Register at https://bit.ly/horteventbrite Contact Sarah at sarah.reck@clackamas.edu with questions.

Human Services

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HS-103 ETHICS FOR HUMAN SERVICE WORKERS, 2 CREDITS

Explores the professional issues students will face when in a helping relationship. Introduces the professional codes of ethics associated with the helping professions. Addresses solving ethical dilemmas using professional guidelines. Topics include client rights, confidentiality, professional boundaries, legal issues in helping, competence, and cultural diversity.

ONL LCT	HS-103-01	351106				$272.00	$28.00	$0.00	$300.00
	C. BAKER								
ONL	HS-103-02	351108				$272.00	$28.00	$0.00	$300.00
	C. BAKER								

HS-104 USING DIAGNOSTIC CRITERIA IN SUBSTANCE USE TREATMENT, 2 CREDITS

This course will present an overview of The American Society of Addiction Medicine (ASAM) Criteria and the Diagnostic and Statistical Manual (DSM) criteria related to addiction and substance use. Students will gain familiarity with the use of the ASAM Criteria to enhance the use of multidimensional assessments to develop patient-centered service plans. Students will also gain knowledge about the use of the DSM Manual to guide diagnosis and treatment of Substance Use Disorders.

ONL LCT	HS-104-01	351109				$272.00	$28.00	$0.00	$300.00
	K. STORY								

HS-154 COMMUNITY RESOURCES, 3 CREDITS

Explores local community social service resources. Focuses on local agencies and programs, including services provided, eligibility criteria, mission, and policies of these agencies. Includes instruction in identifying client needs, various referral processes, and historical, political and social trends.

OC HYB LCT	HS-154-01	351110	T		10-11:50 AM	$408.00	$42.00	$0.00	$450.00
	C. BAKER								
	Meets in-person on five Tuesdays from 10:00am to 11:50am. (1/12, 1/26, 2/9, 2/23, 3/9).								

HS-156 CONDUCTING HUMAN SERVICE INTERVIEWS, 3 CREDITS

Provides the specific techniques required for entry-level interviewing in human service settings. Addresses issues raised in working with clients from diverse backgrounds.

OC HYB LCT	HS-156-01	351116	W		10-11:50 AM	$408.00	$42.00	$0.00	$450.00
	J. SHANNON								
	Meets in-person on five Wednesdays from 10:00am to 11:50am. (1/6, 1/20, 2/3, 2/17, 3/3).								

HS-211 INFECTIOUS DISEASES AND HARM REDUCTION, 1 CREDIT

This course will explore the relationship between substance use and infectious diseases, and discuss methods for reducing transmission of these diseases. Diseases will include HIV/AIDS, tuberculosis, hepatitis, and sexually transmitted infections. This course will provide students with techniques for assisting clients with assessing risk, practicing harm reduction, and evaluating treatment options.

ONL LCT	HS-211-01	351120				$136.00	$14.00	$0.00	$150.00
	C. BAKER								

HS-216 GROUP COUNSELING SKILLS, 3 CREDITS

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.

Prerequisites: HS-156 with a C or better

OC HYB LCT	HS-216-01	351122	T		1-2:50 PM	$408.00	$42.00	$0.00	$450.00
	K. SINNER								
	Meets in-person on five Tuesdays from 1:00pm to 2:50pm (1/5, 1/19, 2/2, 2/16, 3/2).								

HS-256 ADVANCED INTERVIEWING SKILLS WITH THEORY, 3 CREDITS

This course is designed to help human service students further develop and deepen their skills and understanding of interviewing in the human service field. Course will build on skills learned in HS-156, incorporating the use of behavior change theories to guide the helping process.

Prerequisites: HS-156 with a C or better

ONL	HS-256-01	351125				$408.00	$42.00	$0.00	$450.00
	C. BAKER								

HS-270 HUMAN SERVICES PRACTICUM SEMINAR, 2 CREDITS

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.

Corequisites: GRN-280, HS-280, HS-281, or HS-282

OC HYB	HS-270-01	351128	W		1-2:50 PM	$272.00	$28.00	$0.00	$300.00
	J. SHANNON								
	Required: Student Petition. Meets in-person on five Wednesdays from 1:00pm to 2:50pm. (1/6, 1/20, 2/3, 2/17, 3/3).								

HS-280 HUMAN SERVICES GENERALIST I: CWE/PRACTICUM, 2-6 CREDITS (VAR)

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.

Prerequisites: HS-170
Corequisites: HS-270

OC	HS-280-01	351131				$816.00	$84.00	$45.00	$945.00V
	J. LOVELESS								
	Required: Student Petition.								

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	HS-281-01	351137				$816.00	$84.00	$45.00	$945.00V
	J. LOVELESS								
	Required: Student Petition.								

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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.

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

Corequisites: HS-270

OC	HS-282-01	351142						
	J. LOVELESS			$816.00	$84.00	$45.00	$945.00V	
	Required: Student Petition.							

Humanities

HUM-160 FAITH & REASON, 4 CREDITS

An introduction of how personal concepts of faith & reason and institutions of science & religion shape personal intellectual landscapes. Examines classical philosophy, sacred texts, worldviews, modern fiction, poetry, theology, cosmology, and evolutionary biology.

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

ONL	HUM-160-01	351159						
	J. SHELTON			$544.00	$56.00	$0.00	$600.00	

Industrial Maintenance Technology

IMT-104 READING SCHEMATICS, SYMBOLS, AND ENGINEERING PRINTS, 2 CREDITS

A basic course of study that will develop the student's understanding of reading schematics, symbols, and engineering prints through lectures and hands-on examples.

OC	IMT-104-02	351222	T			3-4:50 PM		
	C. CONNORS			$272.00	$28.00	$102.50	$402.50	

IMT-111 INTRODUCTION TO RENEWABLE ENERGY AND INDUSTRIAL SYSTEMS, 3 CREDITS

This is a survey course in Renewable Energy and Industrial Technology. Students will gain an understanding of the principles, technologies, and career opportunities in these closely related fields. It will provide a basic understanding of energy and electro-mechanical systems. Students will gain knowledge and skills related to hand and power tools, fasteners, and mechanical systems. Students will acquire a fundamental understanding of the primary energy sources and their impact on the environment. Includes hands-on lab exercises.

OC	IMT-111-01	351223	MW			9-10:20 AM		
			MW			10:30 -11:50 AM		
	M. BABCOCK			$408.00	$42.00	$153.75	$603.75	
	S. PAVEY							

IMT-120 INDUSTRIAL MACHINERY I, 3 CREDITS

This course will introduce students to industrial machinery and power equipment with respect to industrial maintenance. Students will learn the fundamentals of electro-mechanical machinery repair, assembly and disassembly and how to work safely around mechanical equipment and power tools. Topics discussed will include hand and power tools, preventative maintenance, power transmission systems, fasteners and torque.

Recommended Prerequisites: MTH-050 or higher

OC	IMT-120-01	351225	TTH			3-5:50 PM		
	M. BABCOCK			$408.00	$42.00	$153.75	$603.75	

IMT-230 INTRODUCTION TO HEATING, VENTILATION, AND AIR CONDITIONING, 3 CREDITS

This course will introduce students to commercial and residential Heating, Ventilation, and Air Conditioning (HVAC) systems. Students will study HVAC terminology, heating systems, the refrigeration cycle, low voltage controls, basics of air flow and ventilation as well as safety practices while working on these systems. There will be many opportunities for hands-on experience using trainer devices in a lab setting that will include exercises for troubleshooting, understanding controls, and basic system performance and function.

OC	IMT-230-01	351228	MW			9-11:50 AM		
	C. CONNORS			$408.00	$42.00	$131.25	$581.25	

Journalism

J-211 MASS MEDIA & SOCIETY, 4 CREDITS

This course takes students through a critical study of the production and consumption of mass media, including television, radio, books, film, news, advertising and the internet. Students also examine the economic and social organization of mass media, the growth of new media technologies, and the relationship between media and the public.

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

OC	J-211-01	351231	TTH			10-11:50 AM		
	A. SAMBOR			$544.00	$56.00	$10.00	$610.00	

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	J-215-01	351234	MW			1-2:50 PM		
	M. JONES			$544.00	$56.00	$10.00	$610.00	

J-216 WRITING FOR MEDIA, 4 CREDITS

Introduces students to the fundamentals of writing for various media including journalism, public relations and other communications-related fields. Topics include news gathering, interviewing and media law, with an emphasis on writing for the web, print, broadcast and social media.

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

OC HYB NCT	J-216-01	351237	W			10-11:50 AM		
	M. JONES			$544.00	$56.00	$10.00	$610.00	

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.

Prerequisites: J-215

Recommended Prerequisites: Placement in WR-121Z

OC	J-225-01	351238	MW			1-2:50 PM		
	M. JONES			$544.00	$56.00	$0.00	$600.00	

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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) | Time | Tuition | Fee | Crs. Fee | Total

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	J-226-01	351240	T		1-4:50 PM			
	M. JONES			$544.00	$56.00	$10.00		$610.00

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	J-227-01	351243	T		1-4:50 PM			
	M. JONES			$544.00	$56.00	$0.00		$600.00

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	J-228-01	351245	T		1-4:50 PM			
	M. JONES			$544.00	$56.00	$0.00		$600.00

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	J-235-01	351248	MW		1-2:50 PM			
	M. JONES			$544.00	$56.00	$0.00		$600.00

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

Recommended Prerequisites: J-215

ONL NCT	J-280-01	351250						
	M. JONES			$816.00	$84.00	$45.00		$945.00V
	Required: Student Petition.							

J-280A PUBLIC RELATIONS/CWE, 2-6 CREDITS

Cooperative work experience. Provides the student with on-the-job experience and training related to public relations. Required: Student Petition.

Corequisites: CWE-281

ONL NCT	J-280A-01	351252						
	M. JONES			$816.00	$84.00	$45.00		$945.00V
	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	LIB-101-01	351256						
	TBA			$0.00	$0.00	$0.00		$0.00
	Meets: 1/4-3/6.							
ONL LCT	LIB-101-02	351259						
	TBA			$0.00	$0.00	$0.00		$0.00
	Meets: 1/4-3/6.							
ONL LCT	LIB-101-03	351261						
	TBA			$0.00	$0.00	$0.00		$0.00
	Meets: 1/4-3/6.							

Machine Tool Technology

MTT-111 MANUAL MACHINING I, 4 CREDITS

This course is an introduction to machine tool operation and precision measurement. It covers elementary operation of drill presses, bandsaws, lathes, and milling machines. The course includes external threading.

Recommended Prerequisite or Corequisite: MFG-104 and MTH-050

OC	MTT-111-01	351300	MW		5-8:50 PM			
	J. TRAVER			$544.00	$56.00	$205.00		$805.00

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	MTT-112-01	351303	MW		8-11:50 AM			
	J. TRAVER			$544.00	$56.00	$205.00		$805.00

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	MTT-121-01	351305	TTH		5:30 -9:20 PM			
	J. CARLSTON			$544.00	$56.00	$205.00		$805.00

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.

Prerequisites: MTT-111, MTT-121, MTH-050

OC	MTT-122-01	351307	TTH		8-11:50 AM			
	J. CARLSTON			$544.00	$56.00	$205.00		$805.00

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MTT-242 CAD/CAM III, 4 CREDITS

This course is the third in the Computer-Aided Machining (CAM) series and will build on the previous course. Students will use CAD/CAM software to produce CNC parts. There will be an emphasis on multiple operations on both CNC milling and turning machines. An introduction to five-axis and mill/turn machining will be included.

Prerequisites: MTT-241

Course No	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC	MTT-242-01 C. LETTENMAIER	351309	MW 8-11:50 AM	$544.00	$56.00	$205.00	$805.00

MTT-253 5-AXIS MACHINING, 3 CREDITS

This class will introduce students to 5-axis CNC milling machines, their programming, and setup procedures. The course will explore limitations, advantages, and configurations of typical 5-axis machines including rotation style and set-up orientation. Post processing and virtual machine simulation will also be discussed.

Prerequisites: MTT-122

Course No	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC	MTT-253-01 C. LETTENMAIER	351312	MW 1-3:50 PM	$408.00	$42.00	$153.75	$603.75

MTT-268 CAPSTONE MACHINING I, 3 CREDITS

This is the first of the capstone project series and will allow students to demonstrate mastery of core skills that are learned in the machining program including: CNC setup and operation, manual machining, CAM programming, and surface grinding. This class will focus on importing models, process development, and programming components to be run on a CNC machine tool.

Prerequisites: MTT-113, MTT-122, and MTT-141
Recommended Corequisite: MTT-242

Course No	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC	MTT-268-01 C. LETTENMAIER	351313	MW 5:30 -8:20 PM	$408.00	$42.00	$153.75	$603.75

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

Course No	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC	MFG-103-01 J. CARLSTON	351262	MW 2-4:50 PM	$408.00	$42.00	$153.75	$603.75
OC	MFG-103-02 J. CARLSTON	351264	TTH 2-4:50 PM	$408.00	$42.00	$153.75	$603.75

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.

Course No	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC HYB	MFG-104-01 J. CARLSTON	351266	TTH 12:30 -1:50 PM	$408.00	$42.00	$153.75	$603.75

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.

Course No	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC HYB	MFG-107-01 L. HILLYARD	351270	F 1-3:50 PM	$408.00	$42.00	$153.75	$603.75

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.

Course No	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
REM	MFG-109-01 A. ARISTIZABAL Online textbook included in section fees.	351276	F 9-11:50 AM	$408.00	$42.00	$300.79	$750.79

MFG-110 MANUFACTURING SPECIAL PROJECTS, 1-9 CREDITS (VAR)

Allows students a great deal of latitude in project selection, design & production utilizing manual machine tools, CNC machine tools, CAD/CAM and electrical discharge machines. A solid understanding of all basic machine tools is expected. May be repeated for up to 9 credits. Required: Student Petition.

Course No	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC	MFG-110-01 C. CONNORS Required: Student Petition.	351278	TBA	$1,224.00	$126.00	$461.25	$1,811.25V0

MFG-129 BASIC ELECTRICITY, 3 CREDITS

Explores fundamentals of AC and DC electricity. Includes: atomic structure, direct current, alternating current, Ohm's law, series, parallel, and combination circuits, DC circuit theorems, production of DC voltages, magnetic principles, transformers, motors and generators. Includes practical laboratory activities.

Course No	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC	MFG-129-01 C. CONNORS	351282	TTH 9-11:50 AM	$408.00	$42.00	$153.75	$603.75

MFG-131 BASIC ELECTRICITY II, 3 CREDITS

Covers application of several theories learned in previous term. Additional topics will include: motors, controls, alignment, pulleys and gears, troubleshooting theory, power distribution and lighting, electrical wiring and schematics.

Recommended Prerequisites: MFG-130 and MTH-050

Course No	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC	MFG-131-01 TBA	351284	F 5-7:50 PM	$408.00	$42.00	$153.75	$603.75

MFG-140 PRINCIPLES OF FLUID POWER, 3 CREDITS

Course provides students with instruction in the use of hydraulics and pneumatics in industry, covering the fundamentals of hydraulics, basic components (valves, cylinders, pumps, motors, piping, fluid, fluid conditions, and accessories).

Recommended Prerequisites: MTH-050

Course No	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC	MFG-140-01 J. TRAVER	351287	TTH 6-8:50 PM	$408.00	$42.00	$153.75	$603.75

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MFG-209 PROGRAMMING & AUTOMATION FOR MANUFACTURING, 3 CREDITS

A high-level computer literacy course for technologists. The focus of this course is on structured computer programming in the Visual Basic language and the application of programming industrial automation. Basic knowledge of the PC required.

Recommended Prerequisites: MFG-109

REM	MFG-209-01	351289	TTH		3-4:50 PM			
	TBA			$408.00	$42.00	$153.75	$603.75	

MFG-218 LEAN MANUFACTURING AND QUALITY SYSTEMS, 3 CREDITS

This survey course provides students with literacy in the elements of quality systems including Lean Manufacturing/Six Sigma and related statistical methods. Participants will learn about the philosophy and tools that make up a lean manufacturing system. Students will become familiar with the concepts and tools of quality management which include kaizen, visual management, 5S, value stream mapping, A3 problem solving, SPC, Six Sigma, and the Toyota Production System.

OC	MFG-218-01	354955	TH		2-4:50 PM			
	C. CONNORS			$408.00	$42.00	$153.75	$603.75	

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	MFG-221-01	351290	TTH		12-2:50 PM			
	M. BABCOCK			$408.00	$42.00	$153.75	$603.75	

MFG-264 CMM SET-UP AND OPERATION, 2 CREDITS

In this last course of the precision measurement sequence, students will learn to properly set-up and operate a Coordinate Measuring Machine (CMM) and design measurement plans for optimal metrology output.

Prerequisites: MFG-104

OC	MFG-264-01	351291	TTH		3-4:50 PM			
	M. SNELL			$272.00	$28.00	$103.00	$403.00	

MFG-272 MASTERCAM MILL II, 4 CREDITS

Students construct three-dimensional geometric models using solids and surface modeling techniques. Students program models using advanced multi-axis programming techniques utilizing all aspects of roughing and finishing. Projects verified with solids toolpath verification.

Recommended Prerequisites: MFG-271 or prior experience

REM	MFG-272-01	351292	TTH		5:30 -9:20 PM			
	M. SNELL			$544.00	$56.00	$205.00	$805.00	

MFG-280 MANUFACTURING TECHNOLOGY/CWE, 1-6 CREDITS

Cooperative work experience. Practical experience in the manufacturing trades. Coordination of instruction and evaluation of student job performance will be provided by college faculty in conjunction with the student's employer/supervisor. May be repeated for up to 6 credits. Required: Student Petition.

Corequisites: CWE-281

ONL	MFG-280-01	351295						
	C. CONNORS			$816.00	$84.00	$75.00	$975.00V	
	Required: Student Petition. 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	XMFG-0008-01	351592	F		5-8:50 PM			
	C. CONNORS			$0.00	$0.00	$0.00	$0.00	
	Meets: 1/8.							
OC	XMFG-0008-02	351593	F		5-8:50 PM			
	C. CONNORS			$0.00	$0.00	$0.00	$0.00	
	Meets: 1/15.							
OC	XMFG-0008-03	351594	F		5-8:50 PM			
	C. CONNORS			$0.00	$0.00	$0.00	$0.00	
	Meets: 1/22.							
OC	XMFG-0008-04	351595	F		5-8:50 PM			
	C. CONNORS			$0.00	$0.00	$0.00	$0.00	
	Meets: 1/29.							
OC	XMFG-0008-05	351596	F		5-8:50 PM			
	C. CONNORS			$0.00	$0.00	$0.00	$0.00	
	Meets: 2/5.							
OC	XMFG-0008-06	351597	F		5-8:50 PM			
	C. CONNORS			$0.00	$0.00	$0.00	$0.00	
	Meets: 2/12.							
OC	XMFG-0008-07	351598	F		5-8:50 PM			
	C. CONNORS			$0.00	$0.00	$0.00	$0.00	
	Meets: 2/19.							
OC	XMFG-0008-08	351599	F		5-8:50 PM			
	C. CONNORS			$0.00	$0.00	$0.00	$0.00	
	Meets: 2/26.							
OC	XMFG-0008-09	351600	F		5-8:50 PM			
	C. CONNORS			$0.00	$0.00	$0.00	$0.00	
	Meets: 3/5.							
OC	XMFG-0008-10	351601	F		5-8:50 PM			
	C. CONNORS			$0.00	$0.00	$0.00	$0.00	
	Meets: 3/12.							
OC	XMFG-0008-11	351602	F		5-8:50 PM			
	C. CONNORS			$0.00	$0.00	$0.00	$0.00	
	Meets: 3/19.							

Mathematics

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

ONL LCT	MTH-020-01	354952						
	M. NICKAS			$544.00	$56.00	$20.00	$620.00	
	Meets: 1/18-3/20.							

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ONL NCT	**MTH-020-02**	**351167**							
	M. NICKAS					$544.00	$56.00	$20.00	$620.00
	Meets: 1/18-3/20.								

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

REM NCT ESPAÑOL	**MTH-020ES-01**	**351174**	**S**		**8-11:50 AM**				
	A. ARISTIZABAL					$544.00	$56.00	$20.00	$620.00
	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

OC LCT	**MTH-050-01**	**351178**	**MW**		**10-11:50 AM**				
	A. ARISTIZABAL					$544.00	$56.00	$27.00	$627.00
OC LCT	**MTH-050-02**	**351182**	**TTH**		**3-4:50 PM**				
	A. ARISTIZABAL					$544.00	$56.00	$27.00	$627.00

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 NCT ESPAÑOL	**MTH-050ES-01**	**351186**	**F**		**5-8:50 PM**				
	A. ARISTIZABAL					$544.00	$56.00	$27.00	$627.00

MTH-060 ALGEBRA I, 4 CREDITS

An introduction to the algebra sequence. This class starts from foundational skills of arithmetic to build a rich understanding of linear models. Variables are introduced to represent changing quantities in applications and are used in tables, graphs, expressions, equations, inequalities, and systems. Multiple algebraic representations and strategies are used both with and without technology.

Prerequisites: MTH-020 with a C or better, or placement in MTH-060

HAR NCT	**MTH-060-01**	**351190**	**MW**		**9-10:50 AM**				
	B. WEBBER					$544.00	$56.00	$27.00	$627.00
HAR NCT	**MTH-060-02**	**351198**	**TTH**		**6-7:50 PM**				
	K. PHILLIPS					$544.00	$56.00	$27.00	$627.00
OC NCT	**MTH-060-03**	**351200**	**TTH**		**10-11:50 AM**				
	A. ARISTIZABAL					$544.00	$56.00	$27.00	$627.00

MTH-065 ALGEBRA II, 4 CREDITS

A second term in an algebra sequence, this course bridges foundational algebra skills to formal analysis of algebraic models. Linear and non-linear applications, including radical, absolute value, squaring, and polynomial relations are modeled graphically, numerically, and symbolically. Expressions, equations, and inequalities are utilized throughout. Multiple algebraic representations and strategies are used both with and without technology.

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

HAR NCT	**MTH-065-01**	**351205**	**MW**		**9-10:50 AM**				
	B. WEBBER					$544.00	$56.00	$27.00	$627.00
HAR NCT	**MTH-065-02**	**351208**	**TTH**		**6-7:50 PM**				
	K. PHILLIPS					$544.00	$56.00	$27.00	$627.00
OC NCT	**MTH-065-03**	**351209**	**TTH**		**10-11:50 AM**				
	A. HALL					$544.00	$56.00	$27.00	$627.00
OC NCT	**MTH-065-04**	**351212**	**TTH**		**1-2:50 PM**				
	A. HALL					$544.00	$56.00	$27.00	$627.00

MTH-082C WASTEWATER MATH II, 1 CREDIT

Quantitative component to understanding analysis and operations of secondary wastewater systems. Flow rate, chemical dosage, treatment plant loading, treatment process efficiency, unit conversion and process control.

Prerequisites: MTH-082A and MTH-082B
Corequisites: WET-120

OC	**MTH-082C-01**	**351298**	**M**		**5-5:50 PM**				
	M. LAFORCE					$136.00	$14.00	$10.00	$160.00

MTH-082D WATERWORKS MATH II, 1 CREDIT

Problem solving for waterworks applications. Introduction to contact-time (CT) calculations, how to determine chemical concentrations, the pounds formula, and basic hydraulics.

Prerequisites: MTH-082A and MTH-082B
Corequisites: WET-121

OC	**MTH-082D-01**	**351299**	**T**		**5-5:50 PM**				
	J. NURMI					$136.00	$14.00	$10.00	$160.00

MTH-095 ALGEBRA III, 4 CREDITS

This course focuses on foundational skills and ways of thinking that prepare a student for future STEM coursework. Linear, quadratic, and rational relations are approached through applications with a strong emphasis on modeling as a problem-solving technique. Multiple algebraic representations and strategies are used both with and without technology.

Prerequisites: MTH-065 with a C or better, or placement in MTH-095

OC NCT	**MTH-095-01**	**351218**	**TTH**		**10-11:50 AM**				
	M. PRICE					$544.00	$56.00	$27.00	$627.00
OC NCT	**MTH-095-02**	**351226**	**TTH**		**1-2:50 PM**				
	M. PRICE					$544.00	$56.00	$27.00	$627.00
OC NCT	**MTH-095-03**	**351229**	**TTH**		**3-4:50 PM**				
	M. CHASE					$544.00	$56.00	$27.00	$627.00
OC NCT	**MTH-095-04**	**351230**	**TTH**		**9-11:50 AM**				
	J. HEVEL					$544.00	$56.00	$27.00	$627.00
	Meets: 1/19-3/20.								
OC NCT	**MTH-095-05**	**351232**	**MW**		**6-7:50 PM**				
	B. WEBBER					$544.00	$56.00	$27.00	$627.00
OC HYB NCT	**MTH-095-10**	**351235**	**TBA**						
	C. WARNER					$544.00	$56.00	$27.00	$627.00
	Orientation: 1/6 @ 6-7pm or arrange a time to meet one-on-one. Exam 1: 1/20 @ 6-8pm, Exam 2: 2/17 @ 6-8pm, Final Exam: 3/17 @ 6-8pm. If needed, exams can be taken in the testing center.								

MTH-098 COLLEGE MATH FOUNDATIONS, 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
NCT: No-Cost Text

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

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 NCT	**MTH-098-01**	**351236**	**MW**		**10-11:20 AM**				
	M. HUNTER					$544.00	$56.00	$27.00	$627.00
OC HYB NCT	**MTH-098-02**	**351241**	**TTH**		**1-2:20 PM**				
	E. MEUSER					$544.00	$56.00	$27.00	$627.00
ONL NCT	**MTH-098-10**	**351246**							
	E. KELLY					$544.00	$56.00	$27.00	$627.00
ONL NCT	**MTH-098-11**	**353435**							
	M. JOSI					$544.00	$56.00	$27.00	$627.00

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 NCT	**MTH-105Z-01**	**351249**	**TTH**		**10-11:20 AM**				
	M. CHASE					$544.00	$56.00	$27.00	$627.00
OC HYB NCT	**MTH-105Z-02**	**351251**	**MW**		**1-2:20 PM**				
	M. HUNTER					$544.00	$56.00	$27.00	$627.00
OC HYB NCT	**MTH-105Z-03**	**351253**	**TTH**		**1-2:20 PM**				
	M. CHASE					$544.00	$56.00	$27.00	$627.00
OC HYB NCT	**MTH-105Z-04**	**351254**	**TTH**		**10-11:20 AM**				
	S. VALDES					$544.00	$56.00	$27.00	$627.00
ONL NCT	**MTH-105Z-10**	**351255**							
	B. HSIAO					$544.00	$56.00	$27.00	$627.00
ONL NCT	**MTH-105Z-11**	**351257**							
	M. YANNOTTA					$544.00	$56.00	$27.00	$627.00
ONL NCT	**MTH-105Z-12**	**351258**							
	M. YANNOTTA					$544.00	$56.00	$27.00	$627.00

MTH-108 DATA SCIENCE EXPLORATIONS, 4 CREDITS

In this survey course, students engage with concepts present in multiple fields devoted to understanding and using data. Technology is used throughout as a powerful and necessary tool for robust data exploration and analysis. Students should emerge from the course with a deeper knowledge of the crucial role of data in society and appropriate methodologies for data organization, visualization, analysis, and reporting. Emphasis is placed on preparing students for ethical and informed engagement with data both in future courses and life beyond academia.

Prerequisites: MTH-095 or higher with a C or better or placement into MTH-105Z or higher

OC NCT	**MTH-108-01**	**351260**	**TTH**		**1-2:50 PM**				
	K. MERCER					$544.00	$56.00	$27.00	$627.00

MTH-111Z PRECALCULUS I: FUNCTIONS, 4 CREDITS

A course primarily designed for students preparing for trigonometry or calculus. This course focuses on functions and their properties, including polynomial, rational, exponential, logarithmic, piecewise-defined, and inverse functions. These topics will be explored symbolically, numerically, and graphically in real-life applications and interpreted in context. This course emphasizes skill building, problem solving, modeling, reasoning, communication, connections with other disciplines, and the appropriate use of present-day technology.

Prerequisites: MTH-095 with a C or better, or placement in MTH-111Z

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

HAR NCT	**MTH-111Z-01**	**351263**	**TTH**		**1-3:50 PM**				
	K. PHILLIPS					$544.00	$56.00	$27.00	$627.00
OC NCT	**MTH-111Z-02**	**351265**	**TTH**		**9-11:50 AM**				
	F. CARTER					$544.00	$56.00	$27.00	$627.00
OC NCT	**MTH-111Z-03**	**351267**	**TTH**		**1-3:50 PM**				
	E. KELLY					$544.00	$56.00	$27.00	$627.00
OC NCT	**MTH-111Z-04**	**351269**	**MW**		**9-11:50 AM**				
	M. PARTNOF					$544.00	$56.00	$27.00	$627.00
OC HYB NCT	**MTH-111Z-10**	**351272**	**TBA**						
	K. AMREIN					$544.00	$56.00	$27.00	$627.00
	Orientation: 1/6 @ 6-8pm or 1/7 @ 1-3pm, Exam 1: 1/20 @ 6-8pm or 1/21 @ 1-3pm, Exam 2: 2/17 @ 6-8pm or 2/18 @ 1-3pm, Final Exam: 3/17 @ 6-8pm or 3/18 @ 1-3pm.								

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 NCT	**MTH-112Z-01**	**351273**	**TTH**		**10-11:50 AM**				
	E. KELLY					$544.00	$56.00	$27.00	$627.00
OC NCT	**MTH-112Z-02**	**351277**	**MW**		**1-2:50 PM**				
	B. WEBBER					$544.00	$56.00	$27.00	$627.00
OC NCT	**MTH-112Z-03**	**351279**	**MW**		**10-11:50 AM**				
	F. CARTER					$544.00	$56.00	$27.00	$627.00
OC NCT	**MTH-112Z-04**	**351280**	**TTH**		**3-4:50 PM**				
	E. MEUSER					$544.00	$56.00	$27.00	$627.00

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

OC NCT	**MTH-212-01**	**351281**	**TTH**		**1-2:50 PM**				
	S. VALDES					$544.00	$56.00	$27.00	$627.00

MTH-231 ELEMENTS OF DISCRETE MATHEMATICS, 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
NCT: No-Cost Text

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

Students will be introduced to discrete structures and techniques for computing. The course, which is the first 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: Sets; Graphs and Trees; Functions: properties, recursive definitions, solving recurrences; Relations: properties, equivalence, partial order; Proof techniques: inductive proof; Counting techniques and discrete probability.

Prerequisites: MTH-251Z

OC	MTH-231-01	351283	TTH		3-4:50 PM			
	TBA			$544.00	$56.00	$20.00	$620.00	

MTH-244 STATISTICS II, 4 CREDITS

The tools learned in STAT-243Z are used for performing inference of data. Hypothesis tests and confidence intervals for both one and two populations, linear regression, and chi-square tests are explored.

Prerequisites: STAT-243Z with a C or better

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

OC NCT	MTH-244-01	351285	MW		10-11:50 AM			
	T. BIEBER			$544.00	$56.00	$27.00	$627.00	

MTH-251Z DIFFERENTIAL CALCULUS, 4 CREDITS

This course explores limits, continuity, derivatives, and their applications for real-valued functions of a single variable. These topics will be explored graphically, numerically, and symbolically in real-life applications. This course emphasizes abstraction, problem-solving, modeling, reasoning, communication, connections with other disciplines, and the appropriate use of technology.

Prerequisites: MTH-112Z with a C or better, or placement in MTH-251Z

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

OC NCT	MTH-251Z-01	351288	TTH		10-11:50 AM			
	B. HSIAO			$544.00	$56.00	$27.00	$627.00	
OC NCT	MTH-251Z-02	351293	MW		3-4:50 PM			
	M. PRICE			$544.00	$56.00	$27.00	$627.00	
OC NCT	MTH-251Z-03	351294	TTH		1-2:50 PM			
	B. HSIAO			$544.00	$56.00	$27.00	$627.00	

MTH-252Z INTEGRAL CALCULUS, 4 CREDITS

This course explores Riemann sums, definite integrals, and indefinite integrals for real-valued functions of a single variable. These topics will be explored graphically, numerically, and symbolically in real-life applications. This course emphasizes abstraction, problem-solving, modeling, reasoning, communication, connections with other disciplines, and the appropriate use of technology.

Prerequisites: MTH-251Z with a C or better

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

OC NCT	MTH-252Z-01	351296	MW		10-11:50 AM			
	S. PRUYN			$544.00	$56.00	$27.00	$627.00	
OC NCT	MTH-252Z-02	351302	TTH		3-4:50 PM			
	S. PRUYN			$544.00	$56.00	$27.00	$627.00	

MTH-253Z CALCULUS: SEQUENCES AND SERIES, 4 CREDITS

This course explores real-valued sequences and series, including power and Taylor series. Topics include convergence and divergence tests and applications. These topics will be explored graphically, numerically, and symbolically. This course emphasizes abstraction, problem-solving, reasoning, communication, connections with other disciplines, and the appropriate use of technology.

Prerequisites: MTH-252Z with a C or better

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

OC NCT	MTH-253Z-01	351304	MW		3-4:50 PM			
	M. HAUGEN			$544.00	$56.00	$27.00	$627.00	

MTH-256 DIFFERENTIAL EQUATIONS, 4 CREDITS

This course is an introduction to the study of first-order differential equations, first-order systems of differential equations, linear systems of differential equations, and applications of these topics.

Prerequisites: MTH-252Z with a C or better

OC HYB NCT	MTH-256-01	351308	W		9-11:50 AM			
	A. HALL			$544.00	$56.00	$27.00	$627.00	

MTH-275 A BRIDGE TO UNIVERSITY MATHEMATICS, 2 CREDITS

This is a bridge course designed to help students transition from computation-based mathematics to the more proof-based curriculum typical of junior and senior collegiate-level mathematics courses. Students will construct and validate proofs, explore the nature of mathematics, and navigate some of the systems and conventions used within the mathematics community. May be repeated for up to 4 credits.

Prerequisites: MTH-251Z

REM NCT	MTH-275-01	351310	S		1-2:50 PM			
	M. YANNOTTA			$0.00	$0.00	$0.00	$0.00	
	Required: Student Petition.							

Medical Assistant

For more information, contact Health Sciences at healthsciences@clackamas.edu

MA-156 PHLEBOTOMY I, 1 CREDIT

This course is designed to introduce students to the fundamental skills required for phlebotomy as a medical assistant. Students will become familiar with phlebotomy equipment and learn about basic blood collection procedures. The course will focus on the basic skills needed for patient interactions, documentation, and various phlebotomy techniques.

Prerequisites: MA-150, MA-152, MA-152L, MA-154, and MA-158

Corequisites: MA-156L, MA-160, MA-162, MA-162L, MA-164, MA-164L, and MA-168

Required: Student must be enrolled in current Medical Assistant cohort

ONL	MA-156-01	350261						
	E. ZUNIGA			$136.00	$14.00	$0.00	$150.00	

MA-156L PHLEBOTOMY I LAB, 1 CREDIT

This lab is designed to apply the hands-on skills that were introduced to students in the lecture class. This lab is designed to introduce students to the fundamental skills required for phlebotomy as a medical assistant. Students will become familiar with phlebotomy equipment and learn about basic blood collection procedures. The course will focus on the basic skills needed for patient interactions, documentation, capillary punctures and various phlebotomy techniques.

Prerequisites: MA-150, MA-152, MA-152L, MA-154, and MA-158

Corequisites: MA-156, MA-160, MA-162, MA-162L, MA-164, MA-164L, and MA-168

Required: Student must be enrolled in current Medical Assistant cohort

HAR	MA-156L-01	350262	TH		1-4:00 PM			
	B. KEEN E. ZUNIGA			$136.00	$14.00	$100.00	$250.00	
HAR	MA-156L-02	350263	TH		9-12:00 PM			
	S. DAVENPORT E. ZUNIGA			$136.00	$14.00	$100.00	$250.00	

MA-160 INSURANCE & HEALTH INFORMATION MANAGEMENT, 3 CREDITS

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

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

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

ESPAÑOL: Enseñado en español
LCT: Low-Cost Text
NCT: No-Cost Text

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

This course introduces medical assisting students to practical applications for billing medical insurance both manually and electronically. The course is designed to instruct the student in all phases of billing and insurance procedures and entry-level Electronic Health Record software for the management of medical records. The students are also introduced to basic ICD-10 Diagnosis and Procedural coding skills. This course is required for medical assistant students. This course does not meet the requirements for Insurance Coder certification.

Prerequisites: MA-150, MA-152, MA-152L, MA-154, and MA-158
Corequisites: MA-156, MA-156L, MA-162, MA-162L, MA-164, MA-164L, and MA-168
Required: Student must be enrolled in current Medical Assistant cohort

ONL	MA-160-01	350264						
	S. DAVENPORT			$408.00	$42.00	$55.00	$505.00	

MA-162 EXAMINATION ROOM TECHNIQUES II, 3 CREDITS

This course builds upon the foundational skills introduced in Examination Room Techniques I. The course will focus on advanced medical assisting skills such as medication administration, patient care interactions, immunization, special exam procedures, EKGs, and assisting providers. This course will incorporate specialty clinics and advanced procedures.

Prerequisites: MA-150, MA-152, MA-152L, MA-154, and MA-158
Corequisites: MA-156, MA-156L, MA-160, MA-162L, MA-164, MA-164L, and MA-168
Required: Student must be enrolled in current Medical Assistant cohort

ONL	MA-162-01	350265						
	S. PARKER			$408.00	$42.00	$145.00	$595.00	

MA-162L EXAMINATION ROOM TECHNIQUES LAB II, 1 CREDIT

This lab is designed to apply the hands-on skills that were introduced to students in the lecture class. This lab will cover hands-on skills required for medical assisting in an exam room by adding advanced procedures to the basic rooming techniques. The lab will include advanced medical assisting skills such as medication administration, patient care interactions, immunization, special exam procedures, EKGs, and assisting providers. This lab will incorporate specialty clinics and advanced procedures.

Prerequisites: MA-150, MA-152, MA-152L, MA-154, and MA-158
Corequisites: MA-156, MA-156L, MA-160, MA-162, MA-164, MA-164L, and MA-168
Required: Student must be enrolled in current Medical Assistant cohort

HAR HYB	MA-162L-01	350266	T			9-12:00 PM		
	B. KEEN S. PARKER			$136.00	$14.00	$160.00	$310.00	
HAR HYB	MA-162L-02	350267	TH			9-12:00 PM		
	B. KEEN S. PARKER			$136.00	$14.00	$160.00	$310.00	

MA-164 CLINICAL LAB PROCEDURES I, 1 CREDIT

This theory 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 disease. Laboratory safety, the prevention of bloodborne disease transmission and scope of practice will be emphasized. First course in the Clinical Laboratory Procedures series.

Prerequisites: MA-150, MA-152, MA-152L, MA-154, and MA-158
Corequisites: MA-156, MA-156L, MA-160, MA-162, MA-162L, MA-164L, and MA-168
Required: Student must be enrolled in current Medical Assistant cohort

ONL	MA-164-01	350268						
	S. DAVENPORT			$136.00	$14.00	$40.00	$190.00	

MA-164L CLINICAL LAB PROCEDURES I LAB, 1 CREDIT

This laboratory 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 disease. Laboratory safety, the prevention of bloodborne disease transmission and scope of practice will be emphasized. This is the first lab course in the Clinical Laboratory Procedures series.

Prerequisites: MA-150, MA-152, MA-152L, MA-154, and MA-158
Corequisites: MA-156, MA-156L, MA-160, MA-162, MA-162L, MA-164, and MA-168
Required: Student must be enrolled in current Medical Assistant cohort

HAR	MA-164L-01	350269	T			1-4:00 PM		
	S. DAVENPORT B. KEEN			$136.00	$14.00	$170.00	$320.00	
HAR	MA-164L-02	350270	TH			1-4:00 PM		
	S. DAVENPORT B. KEEN			$136.00	$14.00	$170.00	$320.00	

MA-168 SEMINAR II, 2 CREDITS

This course will expand on professionalism within the healthcare setting and students will interview and obtain clinical practicum placement.

Prerequisites: MA-150, MA-152, MA-152L, MA-154, and MA-158
Corequisites: MA-156, MA-156L, MA-160, MA-162, MA-162L, MA-164, and MA-164L
Required: Student must be enrolled in current Medical Assistant cohort

HAR	MA-168-01	350271	W			10-12:00 PM		
	S. PARKER			$272.00	$28.00	$0.00	$300.00	

Medical Billing and Coding

MBC-115 INSURANCE BILLING AND REIMBURSEMENT I, 4 CREDITS

First course of a two part series. This course introduces the student to health insurance, insurance billing and reimbursement. Students will study the health insurance industry, legal and regulatory issues, and differences in reimbursement methods. The principles of medical billing will be covered, including proper claim form preparation.

Required: Medical Billing and Coding students only

REM	MBC-115-01	350272	M			6-9:00 PM		
	C. GARNER			$544.00	$56.00	$200.00	$800.00	

MBC-120 INTRODUCTION TO MEDICAL CODING, 3 CREDITS

This course will explore the fundamental medical coding skills for professional services, such as physicians, mid-level providers, etc. Students will investigate the fundamentals of Diagnostic and Procedural medical coding.

Required: Medical Billing and Coding students only

REM	MBC-120-01	350273	W			6-9:00 PM		
	C. GARNER			$408.00	$42.00	$200.00	$650.00	

MBC-135 LAW AND ETHICS FOR HEALTHCARE PROFESSIONS, 3 CREDITS

This course introduces legislation affecting healthcare, along with a review of issues such as professional liability, informed consent, privacy and security laws, electronic health records and workplace legalities. A variety of ethical issues in health care are explored, as well as an examination of future trends in health care.

Required: Medical Billing and Coding students only

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Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
ONL	**MBC-135-01** C. GARNER Online textbook included in section fees.	**350274**			$408.00	$42.00	$87.38	$537.38

Music

MUP-102 WIND ENSEMBLE, 1 CREDIT

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 3 credits.

Required: Completion of high school or high school performance level. Ability to read music and play a band instrument

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC NCT	**MUP-102-01** L. CAMPBELL	**350293**	**MW**	**3-4:30 PM**	$136.00	$14.00	$0.00	$150.00

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

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC NCT	**MUP-104-01** C. DOGGETT B. LEE Required: 1 additional hour per week TBA.	**350294**	**T**	**5-6:00 PM**	$136.00	$14.00	$0.00	$150.00

MUP-105 JAZZ ENSEMBLE, 1 CREDIT

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 3 credits.

Recommended Prerequisites: MUP-102

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC NCT	**MUP-105-01** L. CAMPBELL	**350295**	**TTH**	**3-4:30 PM**	$136.00	$14.00	$0.00	$150.00

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

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC LCT	**MUP-122-01** K. HOLLINGSWORTH Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 1/5 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions.	**350296**	**TTH**	**3-4:50 PM**	$272.00	$28.00	$52.00	$352.00

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. May be repeated for up to 6 credits.

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC LCT	**MUP-125-01** K. HOLLINGSWORTH Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 1/5 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions.	**350297**	**MW**	**3-4:50 PM**	$272.00	$28.00	$52.00	$352.00

MUP-141 COLLEGE ORCHESTRA, 1 CREDIT

Performance and study of orchestral literature. College students may earn credit for playing in one of several approved orchestral groups. Minimum of one performance per term. May be repeated for up to 8 credits. Required: Student Petition.

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC NCT	**MUP-141-01** L. CAMPBELL Required: Student Petition.	**350298**	**TBA**		$136.00	$14.00	$0.00	$150.00

MUP-150 CONTEMPORARY MUSIC ENSEMBLE, 2 CREDITS

This course is a performance ensemble open to all musicians who wish to play pop, rock, popular music. May be repeated for up to 12 credits.

Required: Pass proficiency audition

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC NCT	**MUP-150-01** K. HOLLINGSWORTH Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 1/5 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions.	**350299**	**MW**	**1-2:50 PM**	$272.00	$28.00	$50.00	$350.00

MUP-158 CHAMBER ENSEMBLE, 1 CREDIT

Rehearsal and performance of traditional vocal and instrumental chamber music (one musician per part). Includes concerts and coaching by area professionals. Highly recommended for music majors. First of a two-part series. May be repeated for up to 8 credits.

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC NCT	**MUP-158-01** D. TUTMARK Guitar Ensemble.	**350300**	**TH**	**1-2:50 PM**	$136.00	$14.00	$85.00	$235.00
OC NCT	**MUP-158-02** G. HARRIS Saxophone Quartet.	**350301**	**TBA**		$136.00	$14.00	$85.00	$235.00
OC NCT	**MUP-158-03** TBA Brass Quintet.	**350302**	**TBA**		$136.00	$14.00	$85.00	$235.00
OC NCT	**MUP-158-04** TBA Woodwind Quintet.	**350303**	**TBA**		$136.00	$14.00	$85.00	$235.00

MUP-202 WIND ENSEMBLE, 1 CREDIT

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 (3 credits)

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC NCT	**MUP-202-01** L. CAMPBELL	**350386**	**MW**	**3-4:30 PM**	$136.00	$14.00	$0.00	$150.00

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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

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 NCT	MUP-204-01	350388	T			5-6:00 PM	
	C. DOGGETT B. LEE		$136.00	$14.00	$0.00		$150.00
	Required: 1 additional hour per week TBA.						

MUP-205 JAZZ ENSEMBLE, 1 CREDIT

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 3 credits.

Prerequisites: MUP-105 (3 credits)

OC NCT	MUP-205-01	350393	TTH			3-4:30 PM	
	L. CAMPBELL		$136.00	$14.00	$0.00		$150.00

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	MUP-222-01	350395	TTH			3-4:50 PM	
	K. HOLLINGSWORTH		$272.00	$28.00	$52.00		$352.00
	Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 1/5 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions.						

MUP-225 ADVANCED VOCAL ENSEMBLE, 2 CREDITS

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	MUP-225-01	350396	MW			3-4:50 PM	
	K. HOLLINGSWORTH		$272.00	$28.00	$52.00		$352.00
	Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 1/5 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions.						

MUP-241 COLLEGE ORCHESTRA, 1 CREDIT

Performance and study of orchestral literature. College students may earn credit for playing in one of several approved orchestral groups. Minimum of one performance per term. May be repeated for up to 4 credits. Required: Student Petition.

OC NCT	MUP-241-01	350397	TBA				
	L. CAMPBELL		$136.00	$14.00	$0.00		$150.00
	Required: Student Petition.						

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 NCT	MUS-101-01	350442					
	J. HEDBERG		$408.00	$42.00	$10.00		$460.00

MUS-103 APPLIED MUSIC FUNDAMENTALS, 3 CREDITS

A continuation of an 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-102

OC	MUS-103-01	350443	T			10-11:20 AM	
			TH			10-11:20 AM	
	K. HOLLINGSWORTH		$408.00	$42.00	$10.00		$460.00

MUS-105 MUSIC APPRECIATION, 3 CREDITS

For non-majors and music majors. Emphasis on engaging in the study of instrumental and vocal musical genres from the ancient period through the contemporary music of our time. Includes critical analysis, study of elements, forms, styles, composers, performers, cultural, and historical issues and events.

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

ONL	MUS-105-01	350444					
	J. HEDBERG		$408.00	$42.00	$0.00		$450.00

MUS-106 AUDIO RECORDING AT HOME, 1 CREDIT

An overview of the basic tools and techniques used in audio recording at home. Depending on participant needs, topics may include signal path, microphone applications, software, hardware, outboard gear, soldering techniques, tracking, mixing, and editing.

OC NCT	MUS-106-01	350445	F			6-9:00 PM	
			S			12-8:00 PM	
	D. BADSTUBNER		$136.00	$14.00	$99.00		$249.00
	Meets: 2/5 & 2/6.						

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 LCT	MUS-107-01	350446	M			6:30 -9:20 PM	
	M. HALISI		$408.00	$42.00	$99.00		$549.00

MUS-108 INTRODUCTION TO AUDIO RECORDING II, 3 CREDITS

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 LCT	MUS-108-01	350447	T			6:30 -9:20 PM	
	D. BADSTUBNER		$408.00	$42.00	$99.00		$549.00
OC LCT	MUS-108-02	350448	M			1-3:50 PM	
	D. BADSTUBNER		$408.00	$42.00	$99.00		$549.00

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.

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Prerequisites: MUS-108

OC LCT	**MUS-109-01**	**350449**	**T**		**6:30 -9:20 PM**	
	D. BADSTUBNER		$408.00	$42.00	$99.00	$549.00
OC LCT	**MUS-109-02**	**350450**	**M**		**1-3:50 PM**	
	D. BADSTUBNER		$408.00	$42.00	$99.00	$549.00

MUS-112 MUSIC THEORY I, 3 CREDITS

For non-majors and music majors. Presents functional harmony through written exercises, listening, and analysis. This is the second term of a three-term sequence, which includes voice leading, nonharmonic tones, three-voice and four-voice chorale writing, figured bass, and small melodic structures. Provides a thorough groundwork in the melodic, harmonic, and rhythmic elements of music.

Prerequisites: MUS-111
Corequisites: MUS-112L, MUS-115, and MUS-128 for AS in music degree seekers. This requirement does not affect non-music majors or MPT Majors

OC LCT	**MUS-112-01**	**350451**	**TTH**		**10-11:20 AM**	
	R. OLASON		$408.00	$42.00	$0.00	$450.00

MUS-112L MUSIC NOTATION SOFTWARE I, 1 CREDIT

Continues an introduction to Finale (music notation software) on Macintosh computers.

OC NCT	**MUS-112L-01**	**350452**	**M**		**10-11:50 AM**	
	T. STOJANOVIC		$136.00	$14.00	$44.00	$194.00

MUS-115 AURAL SKILLS I, 2 CREDITS

Second 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-112
Prerequisites: MUS-114

OC LCT	**MUS-115-01**	**350453**	**TTH**		**1-1:50 PM**	
	R. OLASON		$272.00	$28.00	$0.00	$300.00

MUS-128 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-112, MUS-112L, and MUS-115
Prerequisites: MUS-127

OC LCT	**MUS-128-01**	**350454**	**TTH**		**2-2:50 PM**	
	R. OLASON		$272.00	$28.00	$10.00	$310.00

MUS-132 THE ART OF PIANO PLAYING, 1 CREDIT

Second 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	**MUS-132-01**	**350455**	**TTH**		**9-9:50 AM**	
	T. STOJANOVIC		$136.00	$14.00	$85.00	$235.00

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	**MUS-137-01**	**350456**	**TH**		**10-11:50 AM**	
	D. TUTMARK		$136.00	$14.00	$85.00	$235.00

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	**MUS-138-01**	**350457**	**TH**		**10-11:50 AM**	
	D. TUTMARK		$136.00	$14.00	$85.00	$235.00

MUS-140 CAREERS IN MUSIC, 3 CREDITS

An overview of the music industry career opportunities. Studies include recording studio management/engineering, music merchandising, promotion, music contracting, agent/personal manager, live performing, teaching, technical support, record business, video and film production/editing, retailing, and instrument repair.

REM NCT	**MUS-140-01**	**350458**	**W**		**6:30 -9:20 PM**	
	D. FLESCHNER		$408.00	$42.00	$0.00	$450.00

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 NCT	**MUS-142-01**	**350459**	**T**		**1-3:50 PM**	
	A. HAAK		$408.00	$42.00	$99.00	$549.00

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 NCT	**MUS-143-01**	**350460**	**TH**		**1-3:50 PM**	
	A. HAAK		$408.00	$42.00	$99.00	$549.00

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 NCT	**MUS-144-01**	**350461**	**TH**		**1-3:50 PM**	
	A. HAAK		$408.00	$42.00	$99.00	$549.00

MUS-147 MUSIC, SOUND & MOVIEMAKING, 1 CREDIT

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

OC NCT	**MUS-147-01**	**350230**	**F**		**6:30 -8:20 PM**	
			S		**9-5:50 PM**	
	B. ROSE		$136.00	$14.00	$99.00	$249.00
	Meets: 1/29 & 1/30.					

MUS-160 SONGWRITING I, 2 CREDITS

Studies the techniques of a working songwriter, including use of form, lyrics, harmonic progressions and symbolism in the creative aspect of songwriting. Solo writing as well as the concept of collaboration are introduced. Participants will work individually and/or in small groups to record original songs. May be repeated for up to 4 credits.

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Required: Working proficiency at playing an instrument such as piano, guitar, voice, or equivalent. Computer generated music is also acceptable

OC NCT	**MUS-160-01**	**350462**	**T**		**1-2:50 PM**				
	L. POLLARD			$272.00	$28.00	$50.00	$350.00		

MUS-171 SOUND DESIGN, 2 CREDITS

This course introduces students to the fundamentals of sound design through a series of practical, hands-on activities. Students will gain an understanding of the skills, tools, and concepts used in the creation and synchronization of sound effects in modern visual media. Through a thorough introduction to sound recording, editing and mixing, audio manipulation, and electronic synthesis, this course will provide students with the knowledge and skills to create unique sound effects using industry standard software like Pro Tools, Propellerhead's Reason, Ableton Live, Native Instrument's Reaktor, and other sound design-specific software.

OC NCT	**MUS-171-01**	**350463**	**W**		**10-11:50 AM**				
	M. BAIRD			$272.00	$28.00	$0.00	$300.00		

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 NCT	**MUS-188-01**	**350464**	**T**		**12-12:50 PM**				
	K. HOLLINGSWORTH			$0.00	$0.00	$0.00	$0.00		
	Required meeting 1/5. Find free on-campus performances for students at clackamasmusic.eventbrite.com.								

MUS-189 PERFORMANCE & REPERTOIRE, 1 CREDIT

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	**MUS-189-01**	**350465**	**W**		**12-12:50 PM**				
	J. ISRAELS			$136.00	$14.00	$0.00	$150.00		
	B. MICHAEL								
	Required: Student Petition.								

MUS-205 MUSIC LITERATURE: HISTORY OF JAZZ, 4 CREDITS

For non-majors and music majors. Emphasis on engaging in the study of Jazz music and surrounding cultural/historical issues. Includes critical analysis, study of elements, forms, styles, composers, performers, cultural, and historical issues and events.

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

ONL	**MUS-205-01**	**354876**							
	L. CAMPBELL			$544.00	$56.00	$0.00	$600.00		

MUS-206 MUSIC LITERATURE: HISTORY OF ROCK, 4 CREDITS

For non-majors and music majors. Emphasis on engaging in the study of Rock music and surrounding cultural/historical issues. Includes critical analysis, study of elements, forms, styles, composers, performers, cultural, and historical issues and events. An examination of Rock music as a contemporary social medium.

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

OC NCT	**MUS-206-01**	**350467**	**MW**		**10-11:50 AM**				
	K. DEITZ			$544.00	$56.00	$0.00	$600.00		
ONL NCT	**MUS-206-02**	**350469**							
	J. HEDBERG			$544.00	$56.00	$0.00	$600.00		

MUS-208 ADVANCED AUDIO RECORDING & MIXING II: EDITING & MIX PREPARATION, 3 CREDITS

This course will address advanced editing and mix preparation techniques. Topics covered include vocal compilation, vocal tuning, drum editing, audio denoising, complex signal routing schemes, clip gain, vocal de-essing, vocal splitting etc. Tools explored in the class include Beat Detective, Melodyne, VocAlign, Auto-Align, iZotope, and Antares Auto Tune. Students will be introduced to the concept of custom mix templates, Pro Tools session data, and creating track presets.

Prerequisites: MUS-109

Recommended Prerequisites: MUS-207

OC	**MUS-208-01**	**350471**	**TH**		**6:30 -9:20 PM**				
	D. BADSTUBNER			$408.00	$42.00	$0.00	$450.00		

MUS-212 MUSIC THEORY II, 3 CREDITS

For non-majors and music majors. Continuation of the study of harmony and period styles through written exercises, compositions, listening, and analysis. This is the second term of a three-term sequence, which includes the classical style, extended, and chromatic harmony.

Required: Ability to read music

Prerequisites: MUS-211

Corequisites: MUS-215 and MUS-225

OC LCT	**MUS-212-01**	**350474**	**MW**		**10-11:20 AM**				
	R. OLASON			$408.00	$42.00	$269.00	$719.00		

MUS-215 KEYBOARD SKILLS II, 2 CREDITS

Second course in the sequential second year of advanced keyboard applications covering the materials of diatonic and chromatic music.

Corequisites: MUS-212

Prerequisites: MUS-214

OC LCT	**MUS-215-01**	**350475**	**MW**		**2-2:50 PM**				
	R. OLASON			$272.00	$28.00	$85.00	$385.00		

MUS-219 MPT SEMINAR II, 1 CREDIT

Second in a three-part series. For second year Music Performance and Technology AAS students only. Seminar will cover writing, arranging, production, performance and music theory through experiential learning. Students will produce, write and arrange for each CME/Songwriters concert and will produce the Annual MPT/Garage Band Festival each spring.

Prerequisites: MUS-218

OC NCT	**MUS-219-01**	**350476**	**M**		**12-12:50 PM**				
	K. HOLLINGSWORTH			$136.00	$14.00	$0.00	$150.00		
	Field trip TBA.								

MUS-225 AURAL SKILLS II, 2 CREDITS

Second 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.

Corequisites: MUS-212

Prerequisites: MUS-224

OC LCT	**MUS-225-01**	**350478**	**MW**		**1-1:50 PM**				
	R. OLASON			$272.00	$28.00	$85.00	$385.00		

MUS-243 ADVANCED ELECTRONIC MUSIC II: ELECTRONIC MUSIC ENSEMBLE, 3 CREDITS

Campus Locations:
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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) | Time | Tuition | Fee | Crs. Fee | Total

This course will utilize Ableton Live and introduce students to using the DAW (Digital Audio Workstation) in a performance environment. Topics covered include Session View, Launching Clips, Utilizing Grooves, Programming controllers via MIDI, Synchronizing Live with Link, Tempo Follower, and MIDI. Students will prepare compositions to perform live.

Prerequisites: MUS-144

OC NCT	MUS-243-01	350479	T		4-6:50 PM				
	M. BAIRD			$408.00	$42.00	$0.00			$450.00

MUS-248 LIVE SOUND ENGINEERING II, 3 CREDITS

Students will be introduced to advanced live sound principles including feedback rejection, graphic and parametric equalization of stage monitors and FOH, expanded setup, industry trends and vocabulary, advanced mic techniques, incorporating subwoofers, and digital console workflow. Attendance/Tours of local music venues and systems will be explored.

Prerequisites: MUS-148

OC NCT	MUS-248-01	350481	W		6:30 -9:20 PM				
	D. BADSTUBNER			$408.00	$42.00	$0.00			$450.00

MUS-280 MUSIC/CWE, 2-6 CREDITS

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

Corequisites: CWE-281

Prerequisites: MUS-107, MUS-140, and MUS-142

ONL NCT	MUS-280-01	350483							
	C. DOGGETT			$816.00	$84.00	$144.00			$1,044.00V
	Required: Student Petition. Corequisite: Take the following CWE-281-06.								
ONL NCT	MUS-280-02	350484							
	G. HARRIS			$816.00	$84.00	$144.00			$1,044.00V
	Required: Student Petition. Corequisite: Take the following CWE-281-06.								

XMUP-0001 UNISTUS CHOIR, 0 CREDIT

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	XMUP-0001-01	350517	M		6-9:30 PM				
	L. CLINE			$0.00	$0.00	$0.00			$0.00
	By audition only.								

Music: Individual Lessons - Non-Music Majors

MUP-100 INDIVIDUAL LESSONS: NON-MUSIC MAJORS, 1 CREDIT

Private lessons for beginners, non-music majors, and students who receive a low rating in MUP-171 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 NCT	MUP-100-01	350275	TBA						
	K. POLITZER			$136.00	$14.00	$225.00			$375.00
	Required: Student Petition. Jazz Piano Lessons.								
OC NCT	MUP-100-02	350276	TBA						
	Y. MIYAMA			$136.00	$14.00	$225.00			$375.00
	Required: Student Petition. Piano Lessons.								
OC NCT	MUP-100-03	350277	TBA						
	D. FLESCHNER			$136.00	$14.00	$225.00			$375.00
	Required: Student Petition. Rock, Blues, and Pop Piano Lessons.								
OC NCT	MUP-100-04	350278	TBA						
	J. ISRAELS			$136.00	$14.00	$225.00			$375.00
	Required: Student Petition. Voice Lessons. Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 1/5 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions.								
OC NCT	MUP-100-05	350279	TBA						
	B. MICHAEL			$136.00	$14.00	$225.00			$375.00
	Required: Student Petition. Voice Lessons. Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 1/5 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions.								
OC NCT	MUP-100-06	350280	TBA						
	D. D'AIGLE			$136.00	$14.00	$225.00			$375.00
	Required: Student Petition. Violin Lessons.								
OC NCT	MUP-100-07	350281	TBA						
	K. DEITZ			$136.00	$14.00	$225.00			$375.00
	Required: Student Petition. Bass Lessons.								
OC NCT	MUP-100-08	350282	TBA						
	D. TUTMARK			$136.00	$14.00	$225.00			$375.00
	Required: Student Petition. Guitar Lessons.								
OC NCT	MUP-100-09	350283	TBA						
	A. CSIKOS			$136.00	$14.00	$225.00			$375.00
	Required: Student Petition. Guitar Lessons.								
OC NCT	MUP-100-10	350284	TBA						
	G. HARRIS			$136.00	$14.00	$225.00			$375.00
	Required: Student Petition. Saxophone Lessons.								
OC NCT	MUP-100-11	350285	TBA						
	Q. WALKER			$136.00	$14.00	$225.00			$375.00
	Required: Student Petition. Trumpet Lessons.								
OC NCT	MUP-100-12	350286	TBA						
	C. DOGGETT			$136.00	$14.00	$225.00			$375.00
	Required: Student Petition. Percussion & Drum Set Lessons.								
OC NCT	MUP-100-13	350287	TBA						
	S. TIEDEMANN			$136.00	$14.00	$225.00			$375.00
	Required: Student Petition. Flute Lessons.								
OC NCT	MUP-100-14	350288	TBA						
	T. STOJANOVIC			$136.00	$14.00	$225.00			$375.00
	Required: Student Petition. Piano Lessons.								
OC NCT	MUP-100-15	350289	TBA						
	C. LEE			$136.00	$14.00	$225.00			$375.00
	Required: Student Petition. Oboe Lessons.								
OC NCT	MUP-100-16	350290	TBA						
	B. GARDINER			$136.00	$14.00	$225.00			$375.00
	Required: Student Petition. Percussion Lessons.								
OC NCT	MUP-100-17	350291	TBA						
	B. LEE			$136.00	$14.00	$225.00			$375.00
	Required: Student Petition. Jazz Improv Lessons.								

Music: Individual Lessons - Year 1

Campus Locations:
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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

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 NCT **MUP-171-01 350305 TBA**
Y. MIYAMA $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

OC NCT **MUP-171-02 350306 TBA**
T. STOJANOVIC $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

MUP-171J INDIVIDUAL LESSONS: JAZZ PIANO, 2 CREDITS
Required: College-level performance ability

OC NCT **MUP-171J-01 350307 TBA**
K. POLITZER $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

MUP-171R INDIVIDUAL LESSONS: ROCK, BLUES, POP PIANO, 2 CREDITS
Required: College-level performance ability

OC NCT **MUP-171R-01 350308 TBA**
D. FLESCHNER $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

OC NCT **MUP-171R-02 350309 TBA**
K. HOLLINGSWORTH $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

MUP-172 INDIVIDUAL LESSONS: ORGAN, 2 CREDITS
Required: College-level performance ability
Corequisites: MUS-189

OC NCT **MUP-172-01 350310 TBA**
J. HOLLAND $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

MUP-174 INDIVIDUAL LESSONS: VOICE, 2 CREDITS
Required: College-level performance ability
Corequisites: MUS-189

OC NCT **MUP-174-01 350311 TBA**
J. ISRAELS $272.00 $28.00 $450.00 $750.00
Required: Student Petition. Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 1/5 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions.

OC NCT **MUP-174-02 350312 TBA**
B. MICHAEL $272.00 $28.00 $450.00 $750.00
Required: Student Petition. Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 1/5 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions.

MUP-174J INDIVIDUAL LESSONS: JAZZ VOICE, 2 CREDITS
Required: College-level performance ability
Corequisites: MUS-189

OC NCT **MUP-174J-01 350313 TBA**
J. ISRAELS $272.00 $28.00 $450.00 $750.00
Required: Student Petition. Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 1/5 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions.

OC NCT **MUP-174J-02 350315 TBA**
B. MICHAEL $272.00 $28.00 $450.00 $750.00
Required: Student Petition. Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 1/5 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions.

MUP-174R INDIVIDUAL LESSONS: ROCK, BLUES, POP VOICE, 2 CREDITS
Required: College-level performance ability

OC NCT **MUP-174R-01 350317 TBA**
J. ISRAELS $272.00 $28.00 $450.00 $750.00
Required: Student Petition. Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 1/5 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions.

OC NCT **MUP-174R-02 350318 TBA**
B. MICHAEL $272.00 $28.00 $450.00 $750.00
Required: Student Petition. Vocal placement required for private lessons and vocal ensembles. New students attend in Room N114 on 1/5 from 3-5 pm to demonstrate vocal range. Contact kathleen.hollingsworth@clackamas.edu with questions.

MUP-175 INDIVIDUAL LESSONS: VIOLIN, 2 CREDITS
Required: College-level performance ability
Corequisites: MUS-189

OC NCT **MUP-175-01 350320 TBA**
D. D'AIGLE $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

MUP-176 INDIVIDUAL LESSONS: VIOLA, 2 CREDITS
Required: College-level performance ability
Corequisites: MUS-189

OC NCT **MUP-176-01 350322 TBA**
H. OSEAS $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

MUP-177 INDIVIDUAL LESSONS: CELLO, 2 CREDITS
Required: College-level performance ability
Corequisites: MUS-189

OC NCT **MUP-177-01 350325 TBA**
C. AVERILL $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

MUP-178 INDIVIDUAL LESSONS: BASS, 2 CREDITS
Required: College-level performance ability
Corequisites: MUS-189

OC NCT **MUP-178-01 350327 TBA**
K. DEITZ $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

MUP-178J INDIVIDUAL LESSONS: JAZZ BASS, 2 CREDITS

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Required: College-level performance ability

OC NCT **MUP-178J-01 350329 TBA**
K. DEITZ $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

OC NCT **MUP-178J-02 350331 TBA**
B. LEE $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

MUP-178R INDIVIDUAL LESSONS: ROCK, BLUES, POP BASS, 2 CREDITS
Required: College-level performance ability

OC NCT **MUP-178R-01 350332 TBA**
K. DEITZ $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

MUP-179 INDIVIDUAL LESSONS: HARP, 2 CREDITS
Required: College-level performance ability
Corequisites: MUS-189

OC NCT **MUP-179-01 350334 TBA**
TBA $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

MUP-180 INDIVIDUAL LESSONS: GUITAR, 2 CREDITS
Required: College-level performance ability
Corequisites: MUS-189

OC NCT **MUP-180-01 350336 TBA**
D. TUTMARK $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

MUP-180J INDIVIDUAL LESSONS: JAZZ GUITAR, 2 CREDITS
Required: College-level performance ability

OC NCT **MUP-180J-01 350338 TBA**
J. RADSLIFF $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

MUP-180R INDIVIDUAL LESSONS: ROCK, BLUES, POP GUITAR, 2 CREDITS
Required: College-level performance ability

OC NCT **MUP-180R-01 350340 TBA**
A. CSIKOS $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

MUP-181 INDIVIDUAL LESSONS: FLUTE, 2 CREDITS
Required: College-level performance ability
Corequisites: MUS-189

OC NCT **MUP-181-01 350343 TBA**
S. TIEDEMANN $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

MUP-182 INDIVIDUAL LESSONS: OBOE, 2 CREDITS
Required: College-level performance ability
Corequisites: MUS-189

OC NCT **MUP-182-01 350347 TBA**
C. LEE $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

MUP-183 INDIVIDUAL LESSONS: CLARINET, 2 CREDITS
Required: College-level performance ability
Corequisites: MUS-189

OC NCT **MUP-183-01 350350 TBA**
TBA $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

MUP-184 INDIVIDUAL LESSONS: SAXOPHONE, 2 CREDITS
Required: College-level performance ability
Corequisites: MUS-189

OC NCT **MUP-184-01 350354 TBA**
G. HARRIS $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

MUP-184J INDIVIDUAL LESSONS: JAZZ SAXOPHONE, 2 CREDITS
Required: College-level performance ability

OC NCT **MUP-184J-01 350356 TBA**
G. HARRIS $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

MUP-185 INDIVIDUAL LESSONS: BASSOON, 2 CREDITS
Required: College-level performance ability
Corequisites: MUS-189

OC NCT **MUP-185-01 350358 TBA**
N. BUETTI $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

MUP-186 INDIVIDUAL LESSONS: TRUMPET, 2 CREDITS
Required: College-level performance ability
Corequisites: MUS-189

OC NCT **MUP-186-01 350360 TBA**
J. KLAUSE $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

MUP-186J INDIVIDUAL LESSONS: JAZZ TRUMPET, 2 CREDITS
Required: College-level performance ability

OC NCT **MUP-186J-01 350363 TBA**
Q. WALKER $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

MUP-187 INDIVIDUAL LESSONS: FRENCH HORN, 2 CREDITS
Required: College-level performance ability
Corequisites: MUS-189

OC NCT **MUP-187-01 350365 TBA**
R. OLASON $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

MUP-188 INDIVIDUAL LESSONS: TROMBONE, 2 CREDITS
Required: College-level performance ability
Corequisites: MUS-189

OC NCT **MUP-188-01 350369 TBA**
C. RENEAU $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

MUP-188J INDIVIDUAL LESSONS: JAZZ TROMBONE, 2 CREDITS
Required: College-level performance ability

OC NCT **MUP-188J-01 350370 TBA**
L. CAMPBELL $272.00 $28.00 $450.00 $750.00
Required: Student Petition.

MUP-189 INDIVIDUAL LESSONS: EUPHONIUM, 2 CREDITS
Required: College-level performance ability
Corequisites: MUS-189

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Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC NCT	**MUP-189-01** 350372 TBA TBA Required: Student Petition.			$272.00	$28.00	$450.00	$750.00

MUP-190 INDIVIDUAL LESSONS: TUBA, 2 CREDITS
Required: College-level performance ability
Corequisites: MUS-189

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC NCT	**MUP-190-01** 350374 TBA TBA Required: Student Petition.			$272.00	$28.00	$450.00	$750.00

MUP-191 INDIVIDUAL LESSONS: PERCUSSION, 2 CREDITS
Required: College-level performance ability
Corequisites: MUS-189

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC NCT	**MUP-191-01** 350376 TBA B. GARDINER Required: Student Petition.			$272.00	$28.00	$450.00	$750.00

MUP-191J INDIVIDUAL LESSONS: JAZZ PERCUSSION, 2 CREDITS
Required: College-level performance ability

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC NCT	**MUP-191J-01** 350378 TBA C. DOGGETT Required: Student Petition.			$272.00	$28.00	$450.00	$750.00

MUP-191R INDIVIDUAL LESSONS: ROCK, BLUES, POP DRUMSET, 2 CREDITS
Required: College-level performance ability

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC NCT	**MUP-191R-01** 350381 TBA C. DOGGETT Required: Student Petition.			$272.00	$28.00	$450.00	$750.00

MUP-192T INDIVIDUAL LESSONS: AUDIO TECH, 2 CREDITS
Required: College-level performance ability

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC NCT	**MUP-192T-01** 350382 TBA M. BAIRD Required: Student Petition. Electronic Music Lessons.			$272.00	$28.00	$450.00	$750.00
OC NCT	**MUP-192T-02** 350383 TBA D. BADSTUBNER Required: Student Petition. Audio Recording Lessons.			$272.00	$28.00	$450.00	$750.00
OC NCT	**MUP-192T-03** 350385 TBA R. SOMMERS Required: Student Petition. Live Sound Lessons.			$272.00	$28.00	$450.00	$750.00
OC NCT	**MUP-192T-04** 354874 TBA D. STREIT Required: Student Petition. Audio Recording Lessons.			$272.00	$28.00	$450.00	$750.00
OC NCT	**MUP-192T-05** 354877 TBA M. HALISI Required: Student Petition. Audio Recording Lessons.			$272.00	$28.00	$450.00	$750.00

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.

MUP-271 INDIVIDUAL LESSONS: PIANO, 2 CREDITS
Prerequisites: MUP-171 (6 credits)
Corequisites: MUS-189
Required: Sophomore-level performance ability

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC NCT	**MUP-271-01** 350398 TBA Y. MIYAMA			$272.00	$28.00	$450.00	$750.00
OC NCT	**MUP-271-02** 350399 TBA T. STOJANOVIC			$272.00	$28.00	$450.00	$750.00

MUP-271J INDIVIDUAL LESSONS: JAZZ PIANO, 2 CREDITS
Prerequisites: MUP-171J (6 credits)
Required: Sophomore-level performance ability

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC NCT	**MUP-271J-01** 350400 TBA K. POLITZER			$272.00	$28.00	$450.00	$750.00

MUP-271R INDIVIDUAL LESSONS: ROCK, BLUES, POP PIANO, 2 CREDITS
Prerequisites: MUP-171R (6 credits)
Required: Sophomore-level performance ability

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC NCT	**MUP-271R-01** 350401 TBA D. FLESCHNER			$272.00	$28.00	$450.00	$750.00

MUP-272 INDIVIDUAL LESSONS: ORGAN, 2 CREDITS
Prerequisites: MUP-172 (6 credits)
Corequisites: MUS-189
Required: Sophomore-level performance ability

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC NCT	**MUP-272-01** 350402 TBA J. HOLLAND			$272.00	$28.00	$450.00	$750.00

MUP-274 INDIVIDUAL LESSONS: VOICE, 2 CREDITS
Prerequisites: MUP-174 (6 credits)
Corequisites: MUS-189
Required: Sophomore-level performance ability

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC NCT	**MUP-274-01** 350403 TBA J. ISRAELS			$272.00	$28.00	$450.00	$750.00
OC NCT	**MUP-274-02** 350404 TBA B. MICHAEL			$272.00	$28.00	$450.00	$750.00

MUP-274J INDIVIDUAL LESSONS: JAZZ VOICE, 2 CREDITS
Prerequisites: MUP-174J (6 credits)
Corequisites: MUS-189
Required: Sophomore-level performance ability

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC NCT	**MUP-274J-01** 350405 TBA J. ISRAELS			$272.00	$28.00	$450.00	$750.00
OC NCT	**MUP-274J-02** 350406 TBA B. MICHAEL			$272.00	$28.00	$450.00	$750.00

MUP-274R INDIVIDUAL LESSONS: ROCK, BLUES, POP VOICE, 2 CREDITS
Prerequisites: MUP-174R (6 credits)
Required: Sophomore-level performance ability

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC NCT	**MUP-274R-01** 350407 TBA J. ISRAELS			$272.00	$28.00	$450.00	$750.00
OC NCT	**MUP-274R-02** 350408 TBA B. MICHAEL			$272.00	$28.00	$450.00	$750.00

MUP-275 INDIVIDUAL LESSONS: VIOLIN, 2 CREDITS
Prerequisites: MUP-175 (6 credits)
Corequisites: MUS-189
Required: Sophomore-level performance ability

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC NCT	**MUP-275-01** 350409 TBA D. D'AIGLE			$272.00	$28.00	$450.00	$750.00

MUP-276 INDIVIDUAL LESSONS: VIOLA, 2 CREDITS

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Prerequisites: MUP-176 (6 credits)
Corequisites: MUS-189
Required: Sophomore-level performance ability

OC NCT **MUP-276-01** 350410 TBA
H. OSEAS $272.00 $28.00 $450.00 $750.00

MUP-277 INDIVIDUAL LESSONS: CELLO, 2 CREDITS
Prerequisites: MUP-177 (6 credits)
Corequisites: MUS-189
Required: Sophomore-level performance ability

OC NCT **MUP-277-01** 350411 TBA
C. AVERILL $272.00 $28.00 $450.00 $750.00

MUP-278 INDIVIDUAL LESSONS: BASS, 2 CREDITS
Prerequisites: MUP-178 (6 credits)
Corequisites: MUS-189
Required: Sophomore-level performance ability

OC NCT **MUP-278-01** 350412 TBA
K. DEITZ $272.00 $28.00 $450.00 $750.00

MUP-278J INDIVIDUAL LESSONS: JAZZ BASS, 2 CREDITS
Prerequisites: MUP-178J (6 credits)
Required: Sophomore-level performance ability

OC NCT **MUP-278J-01** 350413 TBA
K. DEITZ $272.00 $28.00 $450.00 $750.00
OC NCT **MUP-278J-02** 350414 TBA
B. LEE $272.00 $28.00 $450.00 $750.00

MUP-278R INDIVIDUAL LESSONS: ROCK, BLUES, POP BASS, 2 CREDITS
Prerequisites: MUP-178R (6 credits)
Required: Sophomore-level performance ability

OC NCT **MUP-278R-01** 350415 TBA
K. DEITZ $272.00 $28.00 $450.00 $750.00

MUP-279 INDIVIDUAL LESSONS: HARP, 2 CREDITS
Prerequisites: MUP-179 (6 credits)
Corequisites: MUS-189
Required: Sophomore-level performance ability

OC NCT **MUP-279-01** 350416 TBA
TBA $272.00 $28.00 $450.00 $750.00

MUP-280 INDIVIDUAL LESSONS: GUITAR, 2 CREDITS
Prerequisites: MUP-180 (6 credits)
Corequisites: MUS-189
Required: Sophomore-level performance ability

OC NCT **MUP-280-01** 350417 TBA
D. TUTMARK $272.00 $28.00 $450.00 $750.00

MUP-280J INDIVIDUAL LESSONS: JAZZ GUITAR, 2 CREDITS
Prerequisites: MUP-180J (6 credits)
Required: Sophomore-level performance ability

OC NCT **MUP-280J-01** 350418 TBA
J. RADSLIFF $272.00 $28.00 $450.00 $750.00

MUP-280R INDIVIDUAL LESSONS: ROCK, BLUES, POP GUITAR, 2 CREDITS
Prerequisites: MUP-180R (6 credits)
Required: Sophomore-level performance ability

OC NCT **MUP-280R-01** 350419 TBA
A. CSIKOS $272.00 $28.00 $450.00 $750.00

MUP-281 INDIVIDUAL LESSONS: FLUTE, 2 CREDITS
Prerequisites: MUP-181 (6 credits)
Corequisites: MUS-189
Required: Sophomore-level performance ability

OC NCT **MUP-281-01** 350420 TBA
S. TIEDEMANN $272.00 $28.00 $450.00 $750.00

MUP-282 INDIVIDUAL LESSONS: OBOE, 2 CREDITS
Prerequisites: MUP-182 (6 credits)
Corequisites: MUS-189
Required: Sophomore-level performance ability

OC NCT **MUP-282-01** 350422 TBA
C. LEE $272.00 $28.00 $450.00 $750.00

MUP-283 INDIVIDUAL LESSONS: CLARINET, 2 CREDITS
Prerequisites: MUP-183 (6 credits)
Corequisites: MUS-189
Required: Sophomore-level performance ability

OC NCT **MUP-283-01** 350423 TBA
TBA $272.00 $28.00 $450.00 $750.00

MUP-284 INDIVIDUAL LESSONS: SAXOPHONE, 2 CREDITS
Prerequisites: MUP-184 (6 credits)
Corequisites: MUS-189
Required: Sophomore-level performance ability

OC NCT **MUP-284-01** 350425 TBA
G. HARRIS $272.00 $28.00 $450.00 $750.00

MUP-284J INDIVIDUAL LESSONS: JAZZ SAXOPHONE, 2 CREDITS
Prerequisites: MUP-184J (6 credits)
Required: Sophomore-level performance ability

OC NCT **MUP-284J-01** 350426 TBA
G. HARRIS $272.00 $28.00 $450.00 $750.00

MUP-285 INDIVIDUAL LESSONS: BASSOON, 2 CREDITS
Prerequisites: MUP-185 (6 credits)
Corequisites: MUS-189
Required: Sophomore-level performance ability

OC NCT **MUP-285-01** 350427 TBA
N. BUETTI $272.00 $28.00 $450.00 $750.00

MUP-286 INDIVIDUAL LESSONS: TRUMPET, 2 CREDITS
Prerequisites: MUP-186 (6 credits)
Corequisites: MUS-189
Required: Sophomore-level performance ability

OC NCT **MUP-286-01** 350428 TBA
J. KLAUSE $272.00 $28.00 $450.00 $750.00

MUP-286J INDIVIDUAL LESSONS: JAZZ TRUMPET, 2 CREDITS
Prerequisites: MUP-186J (6 credits)
Required: Sophomore-level performance ability

OC NCT **MUP-286J-01** 350429 TBA
Q. WALKER $272.00 $28.00 $450.00 $750.00

MUP-287 INDIVIDUAL LESSONS: FRENCH HORN, 2 CREDITS

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Prerequisites: MUP-187 (6 credits)
Corequisites: MUS-189
Required: Sophomore-level performance ability

OC NCT **MUP-287-01** 350430 TBA
R. OLASON $272.00 $28.00 $450.00 $750.00

MUP-288 INDIVIDUAL LESSONS: TROMBONE, 2 CREDITS
Prerequisites: MUP-188 (6 credits)
Corequisites: MUS-189
Required: Sophomore-level performance ability

OC NCT **MUP-288-01** 350432 TBA
C. RENEAU $272.00 $28.00 $450.00 $750.00

MUP-288J INDIVIDUAL LESSONS: JAZZ TROMBONE, 2 CREDITS
Prerequisites: MUP-188J (6 credits)
Required: Sophomore-level performance ability

OC NCT **MUP-288J-01** 350433 TBA
L. CAMPBELL $272.00 $28.00 $450.00 $750.00

MUP-289 INDIVIDUAL LESSONS: EUPHONIUM, 2 CREDITS
Prerequisites: MUP-189 (6 credits)
Corequisites: MUS-189
Required: Sophomore-level performance ability

OC NCT **MUP-289-01** 350434 TBA
TBA $272.00 $28.00 $450.00 $750.00

MUP-290 INDIVIDUAL LESSONS: TUBA, 2 CREDITS
Prerequisites: MUP-190 (6 credits)
Corequisites: MUS-189
Required: Sophomore-level performance ability

OC NCT **MUP-290-01** 350435 TBA
TBA $272.00 $28.00 $450.00 $750.00

MUP-291 INDIVIDUAL LESSONS: PERCUSSION, 2 CREDITS
Prerequisites: MUP-191 (6 credits)
Corequisites: MUS-189
Required: Sophomore-level performance ability

OC NCT **MUP-291-01** 350436 TBA
B. GARDINER $272.00 $28.00 $450.00 $750.00

MUP-291J INDIVIDUAL LESSONS: JAZZ PERCUSSION, 2 CREDITS
Prerequisites: MUP-191J (6 credits)
Required: Sophomore-level performance ability

OC NCT **MUP-291J-01** 350437 TBA
C. DOGGETT $272.00 $28.00 $450.00 $750.00

MUP-291R INDIVIDUAL LESSONS: ROCK, BLUES, POP DRUMSET, 2 CREDITS
Prerequisites: MUP-191R (6 credits)
Required: Sophomore-level performance ability

OC NCT **MUP-291R-01** 350438 TBA
C. DOGGETT $272.00 $28.00 $450.00 $750.00

MUP-292T INDIVIDUAL LESSONS: AUDIO TECH, 2 CREDITS
Prerequisites: MUP-192T (6 credits)
Required: Sophomore-level performance ability

OC NCT **MUP-292T-01** 350439 TBA
M. BAIRD $272.00 $28.00 $450.00 $750.00
Electronic Music Lessons.

OC NCT **MUP-292T-02** 350440 TBA
D. BADSTUBNER $272.00 $28.00 $450.00 $750.00
Audio Recording Lessons.

OC NCT **MUP-292T-03** 350441 TBA
R. SOMMERS $272.00 $28.00 $450.00 $750.00
Live Sound Lessons.

OC NCT **MUP-292T-04** 354875 TBA
D. STREIT $272.00 $28.00 $450.00 $750.00
Audio Recording Lessons.

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-111 FOUNDATIONS OF NURSING IN CHRONIC ILLNESS I, 3 CREDITS

This course introduces assessment and common interventions (including technical procedures) for patients with chronic illnesses common across the life span in multiple ethnic groups. The patient's and family's lived experience of the condition is explored. Clinical practice guidelines and research evidence are used to guide clinical judgments in care of individuals with chronic conditions. Multidisciplinary team roles and responsibilities are explored in the context of delivering safe, high quality health care to individuals with chronic conditions (includes practical and legal aspects of delegation). Cultural, ethical, legal and health care delivery issues are explored through case scenarios and clinical practice. Case exemplars include children with asthma, adolescents with a mood disorder, adults with type 2 diabetes, and older adults with dementia. The course includes classroom and clinical learning experiences.

Required: Acceptance into the CCC nursing program
Prerequisites: NRS-110, NRS-110C, and NRS-230
Corequisites: NRS-111C, NRS-231, and NRS-232

HAR **NRS-111-01** 351850 M 8:30 -11:30 AM
C. BURT $408.00 $42.00 $400.00 $850.00
C. LEESE
T. VANDERWERF

NRS-111C FOUNDATIONS OF NURSING IN CHRONIC ILLNESS I CLINICAL, 3 CREDITS

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

This course introduces assessment and common interventions (including technical procedures) for clients with chronic illnesses common across the life span in major ethnic groups within Oregon. The client's and family's lived experience of the condition is explored. Clinical practice guidelines and research evidence are used to guide clinical judgments in care of individuals with chronic conditions. Multidisciplinary team roles and responsibilities are considered in the context of delivering safe, high quality health care to individuals with chronic conditions (includes practical and legal aspects of delegation). Cultural, ethical, legal and health care delivery issues are explored through case scenarios and clinical practice. Case exemplars include children with asthma, adolescents with a mood disorder, adults with type 2 diabetes, and older adults with dementia. The course includes classroom and clinical learning experiences with simulation experience as part of total clinical hours.

Required: Acceptance into the CCC nursing program
Prerequisites: NRS-110, NRS-110C, and NRS-230
Corequisites: NRS-111, NRS-231, and NRS-232

HAR	**NRS-111C-01**	**351851**	**T**			**8:30 -10:20 AM**	
	C. BURT		$408.00	$42.00	$350.00		$800.00
	C. LEESE						
	T. VANDERWERF						
HAR	**NRS-111C-02**	**351852**	**T**			**11-12:50 PM**	
	C. BURT		$408.00	$42.00	$350.00		$800.00
	C. LEESE						
	T. VANDERWERF						
HAR	**NRS-111C-03**	**351853**	**T**			**1:30 -3:20 PM**	
	C. BURT		$408.00	$42.00	$350.00		$800.00
	C. LEESE						
	T. VANDERWERF						

NRS-221 CHRONIC ILLNESS II AND END OF LIFE, 4 CREDITS

This course builds on NRS-111 and expands the student's knowledge related to family care giving, symptom management and end of life concepts. These concepts are a major focus and basis for nursing interventions with patients and families. Ethical issues related to advocacy, self-determination, and autonomy are explored. Complex skills associated with the assessment and management of concurrent illnesses and conditions are developed within the context of patient and family preferences and needs. Skills related to enhancing communication and collaboration as a member of an interprofessional team and across health care settings are further explored. Exemplars include patients with chronic mental illness and addictions as well as other chronic conditions and disabilities affecting functional status and family relationships. The course includes classroom and clinical learning experiences.

Required: Acceptance into the CCC nursing program
Corequisites: NRS-221C
Prerequisites: NRS-222 and NRS-222C

HAR	**NRS-221-01**	**350492**	**M**			**8:30 -10:20 AM**	
			M			**11-12:50 PM**	
	A. DROUIN		$544.00	$56.00	$298.00		$898.00
	C. LEESE						
	K. RICHARDS						

NRS-221C CHRONIC ILLNESS II AND END OF LIFE CLINICAL, 5 CREDITS

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

This course builds on NRS-111 and expands the student's knowledge related to family care giving, symptom management and end of life concepts. These concepts are a major focus and basis for nursing interventions with patients and families. Ethical issues related to advocacy, self determination, and autonomy are explored. Complex skills associated with the assessment and management of concurrent illnesses and conditions are developed within the context of patient and family preferences and needs. Skills related to enhancing communication and collaboration as a member of an interdisciplinary team are further explored. Exemplars include patients with chronic mental illness and addictions as well as other chronic conditions and disabilities affecting functional status and family relationships. The course includes classroom and clinical learning experiences.

Required: Acceptance into the CCC nursing program
Corequisites: NRS-221
Prerequisites: NRS-222 and NRS-222C

HAR	**NRS-221C-01**	**350494**	**TBA**				
	A. DROUIN		$680.00	$70.00	$378.00		$1,128.00
	C. LEESE						
	K. RICHARDS						
HAR	**NRS-221C-02**	**350495**	**TBA**				
	A. DROUIN		$680.00	$70.00	$378.00		$1,128.00
	C. LEESE						
	K. RICHARDS						
HAR	**NRS-221C-03**	**350496**	**TBA**				
	A. DROUIN		$680.00	$70.00	$378.00		$1,128.00
	C. LEESE						
	K. RICHARDS						
HAR	**NRS-221C-04**	**350497**	**TBA**				
	A. DROUIN		$680.00	$70.00	$378.00		$1,128.00
	C. LEESE						
	K. RICHARDS						
HAR	**NRS-221C-05**	**350498**	**TBA**				
	A. DROUIN		$680.00	$70.00	$378.00		$1,128.00
	C. LEESE						
	K. RICHARDS						

NRS-231 CLINICAL PHARMACOLOGY II, 3 CREDITS

This sequel to NRS-230 continues to provide the theoretical background that enables students to provide safe and effective nursing care related to drugs and natural products to persons throughout the lifespan. Students will learn to make selected clinical decisions in the context of nursing regarding using current, reliable sources of information, monitoring and evaluating the effectiveness of drug therapy, teaching persons from diverse populations regarding safe and effective use of drugs and natural products, intervening to increase therapeutic benefits and reduce potential negative effects, and communicating appropriately with other health professionals regarding drug therapy. The course addresses additional classes of drugs and related natural products not contained in NRS-230.

Required: Acceptance into the CCC nursing program
Prerequisites: NRS-110, NRS-110C, and NRS-230
Corequisites: NRS-111, NRS-111C, and NRS-232

HAR HYB	**NRS-231-01**	**350500**	**F**			**8:30 -10:30 AM**	
	K. RICHARDS		$408.00	$42.00	$90.00		$540.00

NRS-232 PATHOPHYSIOLOGICAL PROCESSES I, 3 CREDITS

Campus Locations:
HAR: Harmony Community Campus
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This course introduces pathophysiological processes that contribute to many different disease states across the lifespan and human responses to those processes. It includes the foundational concepts of cellular adaptation, injury, and death; inflammation and tissue healing; fluid and electrolyte imbalances; and physiologic response to stressors, as well as additional pathophysiological processes. Students will learn to make selective 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.

Required: Acceptance into the CCC nursing program
Prerequisites: NRS-110, NRS-110C, and NRS-230
Corequisites: NRS-111, NRS-111C, and NRS-231

Course No	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
HAR HYB	NRS-232-01 A. DROUIN	350502	F 12:30 -2:20 PM	$408.00	$42.00	$170.00	$620.00

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.

Required: Must be at least 18 years of age; High School Diploma or equivalent; Complete online application located on program webpage and attend a mandatory orientation. 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

Course No	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
HAR HYB	NUR-100-01 M. BAKER M. COX K. STIPE Required: Student Petition. Information session details will be posted to the nursing assistant website. Please see website for application & orientation information.	350503	TW 8-12:30 PM	$884.00	$91.00	$350.00	$1,325.00
HAR HYB	NUR-100-02 M. BAKER M. COX K. STIPE Required: Student Petition. Information session details will be posted to the nursing assistant website. Please see website for application & orientation information.	350505	TW 1-5:30 PM	$884.00	$91.00	$350.00	$1,325.00

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

Course No	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
HAR	NUR-100C-01 M. COX Required: Student Petition.	350507	TWTH	$0.00	$0.00	$0.00	$0.00
HAR	NUR-100C-02 M. BAKER M. COX Required: Student Petition.	350509	TWTH	$0.00	$0.00	$0.00	$0.00
HAR	NUR-100C-03 M. COX K. STIPE Required: Student Petition.	350511	TWTH	$0.00	$0.00	$0.00	$0.00
HAR	NUR-100C-04 P. BRADLEY M. COX Required: Student Petition.	350514	TBA	$0.00	$0.00	$0.00	$0.00

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

Course No	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
ONL LCT	PHL-101-01 K. HADDIX	351311		$544.00	$56.00	$0.00	$600.00

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

Course No	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC HYB NCT	PHL-102-01 M. BAILEY	351316	W 1-2:50 PM	$544.00	$56.00	$0.00	$600.00
ONL NCT	PHL-102-02 M. BAILEY	351322		$544.00	$56.00	$0.00	$600.00

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

Course No	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC NCT	PHL-103-01 M. BAILEY	351324	TTH 1-2:50 PM	$544.00	$56.00	$0.00	$600.00

Phlebotomy

PHB-125 PROFESSIONALISM IN HEALTHCARE, 1 CREDIT

This course is designed to support the transition from practicum to employment by exploring nationally recognized credentialing options, summarizing essential skills related to phlebotomy, and finalizing professional portfolio for employment.

Required: Acceptance into the Phlebotomy program
Prerequisites: PHB-110, PHB-112, and PHB-115
Corequisites: PHB-130

Course No	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
ONL	PHB-125-01 E. ZUNIGA	350515		$136.00	$14.00	$100.00	$250.00

PHB-130 PHLEBOTOMY PRACTICUM, 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:
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VAR: Variable credit class

ESPAÑOL: Enseñado en español
LCT: Low-Cost Text
NCT: No-Cost Text

Provide hands-on experience in a supervised and accredited laboratory or clinical environment, providing the opportunity for students to apply practical skills and knowledge learned in previous courses and gain professional experience in a healthcare environment.

Required: Acceptance into the Phlebotomy program. 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

Prerequisites: PHB-110, PHB-112, and PHB-115

Corequisites: PHB-125

Course No	Section No	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Instructor	Tuition	Fee	Crs. Fee	Total
HAR	PHB-130-01	350516	TBA		J. ALLISON E. ZUNIGA	$680.00	$70.00	$135.00	$885.00

Physical Education

PE-185 PHYSICAL ACTIVITY CLASSES, 1 CREDIT

Recommended: Current physical examination before enrolling

Course No	Section No	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Instructor	Tuition	Fee	Crs. Fee	Total
	BASEBALL CONDITIONING II, 1 CREDIT								
OC NCT	PE-185-008	354892	MWF	8-8:50 AM	J. HOPPEL Required: Student Petition.	$136.00	$14.00	$30.00	$180.00
	CROSS TRAINING V, 1 CREDIT								
ONL NCT	PE-185-050	354890			B. STAMME	$136.00	$14.00	$30.00	$180.00
	CROSS TRAINING V, 1 CREDIT								
ONL NCT	PE-185-052	355016			B. STAMME	$136.00	$14.00	$30.00	$180.00
	CROSS TRAINING V, 1 CREDIT								
ONL NCT	PE-185-054	355017			J. MARTINEAU Required: Student Petition.	$136.00	$14.00	$30.00	$180.00
	SOFTBALL CONDITIONING II, 1 CREDIT								
OC NCT	PE-185-088	354889	TTH	7:30 -8:50 AM	J. BUEL Required: Student Petition.	$136.00	$14.00	$30.00	$180.00
	TRACK CONDITIONING II, 1 CREDIT								
OC NCT	PE-185-105	354887	MWF	1-1:50 PM	K. MCHONE Required: Student Petition.	$136.00	$14.00	$30.00	$180.00
	VOLLEYBALL, POWER II, 1 CREDIT								
OC NCT	PE-185-030	354893	T	6:30 -9:20 PM	L. HARRIS-ALEXANDER Required: Student Petition.	$136.00	$14.00	$30.00	$180.00
	WALK, JOG, FITNESS II, 1 CREDIT								
ONL NCT	PE-185-002	351315			K. MCHONE	$136.00	$14.00	$30.00	$180.00
	WEIGHT TRAINING II, 1 CREDIT								
ONL NCT	PE-185-064	351326			B. STAMME	$136.00	$14.00	$30.00	$180.00
	WEIGHT TRAINING II, 1 CREDIT								
OC NCT	PE-185-063	351323	TTH	10-11:20 AM	B. STAMME J. STEINKE	$136.00	$14.00	$30.00	$180.00
	YOGA II, 1 CREDIT								
ONL NCT	PE-185-001	351314			E. HANCOCK	$136.00	$14.00	$30.00	$180.00

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.

Course No	Section No	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Instructor	Tuition	Fee	Crs. Fee	Total
OC HYB NCT	PE-240-01	351334	W	9-9:50 AM	K. MCHONE	$408.00	$42.00	$0.00	$450.00

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.

Course No	Section No	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Instructor	Tuition	Fee	Crs. Fee	Total
ONL NCT	PE-270-01	351335			K. MCHONE	$408.00	$42.00	$0.00	$450.00

PE-280 PHYSICAL EDUCATION/CWE, 2-6 CREDITS

Cooperative work experience. Provides students with on-the-job experience and training related to the Physical Education field. Covers job problems and procedures, evaluation of students' job performance by qualified college staff and site supervision. May be repeated for up to 12 credits. Required: Student Petition.

Corequisites: CWE-281

Course No	Section No	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Instructor	Tuition	Fee	Crs. Fee	Total
ONL NCT	PE-280-01	351337			T. NELSON 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.	$816.00	$84.00	$45.00	$945.00V

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.

Course No	Section No	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Instructor	Tuition	Fee	Crs. Fee	Total
	BASKETBALL SKILLS & STRATEGIES, 1 CREDIT								
OC NCT	PE-294-03	354885	MWF	3-3:50 PM	K. GUELSDORF Required: Student Petition.	$136.00	$14.00	$30.00	$180.00
	BASKETBALL SKILLS & STRATEGIES, 1 CREDIT								
OC NCT	PE-294-02	354886	MWF	12-12:50 PM	B. STAMME Required: Student Petition.	$136.00	$14.00	$30.00	$180.00

Physics

PH-121 ASTRONOMY, 4 CREDITS

A lab course including the history of astronomy, the Earth and moon, all planets in our solar system, along with asteroids, meteors and comets.

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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

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	**PH-121-01**	**351342**		$544.00	$56.00	$25.00	$625.00
	C. SHARON						

PH-121L ASTRONOMY LAB, 0 CREDIT

Lab course for PH-121L
Corequisites: PH-121

ONL	**PH-121L-01**	**351346**		$0.00	$0.00	$0.00	$0.00
	C. SHARON						

PH-122 GENERAL ASTRONOMY, 4 CREDITS

A lab course including the properties of our sun, other stars and stellar evolution.
Prerequisites: PH-121 or GS-107
Corequisites: PH-122L

ONL	**PH-122-01**	**351348**		$544.00	$56.00	$50.00	$650.00
	C. SHARON						

PH-122L GENERAL ASTRONOMY LAB, 0 CREDIT

Lab course for PH-122
Corequisites: PH-122

ONL	**PH-122L-01**	**351349**		$0.00	$0.00	$0.00	$0.00
	C. SHARON						

PH-202 GENERAL PHYSICS, 5 CREDITS

A lab course covering electricity, magnetism, DC and AC circuits, and electromagnetic radiation.
Prerequisites: PH-201
Corequisites: PH-202L and PH-202S

OC	**PH-202-01**	**351350**	**MW**	$680.00	$70.00	**11-12:20 PM** $50.00	$800.00
	E. ALHATMI						

PH-202L GENERAL PHYSICS LAB, 0 CREDIT

Lab course for PH-202
Corequisites: PH-202 and PH-202S

OC	**PH-202L-01**	**351352**	**T**			**9-11:50 AM**	
	E. ALHATMI			$0.00	$0.00	$0.00	$0.00
OC	**PH-202L-02**	**351353**	**T**			**1-3:50 PM**	
	E. ALHATMI			$0.00	$0.00	$0.00	$0.00
OC	**PH-202L-03**	**351354**	**TH**			**1-3:50 PM**	
	E. ALHATMI			$0.00	$0.00	$0.00	$0.00
OC	**PH-202L-04**	**351355**	**F**			**11-1:50 PM**	
	G. BOSTROM			$0.00	$0.00	$0.00	$0.00

PH-202S GENERAL PHYSICS SEMINAR, 0 CREDIT

Seminar course for PH-202
Corequisites: PH-202 and PH-202L

OC	**PH-202S-01**	**351357**	**MW**			**12:25 -12:50 PM**	
	E. ALHATMI			$0.00	$0.00	$0.00	$0.00

PH-212 GENERAL PHYSICS WITH CALCULUS, 5 CREDITS

A lab course covering electricity, magnetism, DC and AC circuits, and electromagnetic radiation.
Prerequisites: MTH-252Z and PH-211
Corequisites: PH-212L and PH-212S
Recommended Prerequisites: MTH-254

OC	**PH-212-01**	**351360**	**MW**			**11-12:20 PM**	
	G. BOSTROM			$680.00	$70.00	$50.00	$800.00
OC	**PH-212-02**	**351364**	**MW**			**1-2:20 PM**	
	G. BOSTROM			$680.00	$70.00	$50.00	$800.00

PH-212L GENERAL PHYSICS WITH CALCULUS LAB, 0 CREDIT

Lab course for PH-212
Corequisites: PH-212 and PH-212S

OC	**PH-212L-01**	**351366**	**T**			**9-11:50 AM**	
	E. ALHATMI			$0.00	$0.00	$0.00	$0.00
OC	**PH-212L-02**	**351367**	**T**			**1-3:50 PM**	
	E. ALHATMI			$0.00	$0.00	$0.00	$0.00
OC	**PH-212L-03**	**351368**	**TH**			**1-3:50 PM**	
	E. ALHATMI			$0.00	$0.00	$0.00	$0.00
OC	**PH-212L-04**	**351369**	**F**			**11-1:50 PM**	
	G. BOSTROM			$0.00	$0.00	$0.00	$0.00

PH-212S GENERAL PHYSICS WITH CALCULUS SEMINAR, 0 CREDIT

Seminar course for PH-212
Corequisites: PH-212 and PH-212L

OC	**PH-212S-01**	**351370**	**T**			**4-4:50 PM**	
	G. BOSTROM			$0.00	$0.00	$0.00	$0.00
OC	**PH-212S-02**	**351372**	**TH**			**4-4:50 PM**	
	G. BOSTROM			$0.00	$0.00	$0.00	$0.00
OC	**PH-212S-03**	**351375**	**F**			**2-2:50 PM**	
	G. BOSTROM			$0.00	$0.00	$0.00	$0.00

Political Science

PS-200 INTRODUCTION TO POLITICAL SCIENCE, 4 CREDITS

A general introduction to the field of political science. Introduces and expands on basic political concepts and themes, explores political theory and ideology, and considers the dynamics of political institutions and government and how both are integrated into political life.
Recommended Prerequisites: WRD-098 or placement in WR-121Z

ONL NCT	**PS-200-01**	**353365**		$544.00	$56.00	$0.00	$600.00
	J. HITE						

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 NCT	**PS-201-01**	**351325**		$544.00	$56.00	$0.00	$600.00
	J. HITE						

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

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ESPAÑOL: Enseñado en español
LCT: Low-Cost Text
NCT: No-Cost Text

Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Time	Tuition	Fee	Crs. Fee	Total
OC NCT	**PS-280-01** J. HITE, D. LOUGEE	**351327**			$816.00	$84.00	$45.00	$945.00V
	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 NCT	**PSY-101-01** E. SAUBER	**351331**	**TTH**	**1-2:20 PM**	$408.00	$42.00	$0.00	$450.00
ONL NCT	**PSY-101-02** M. MALLATT	**351339**			$408.00	$42.00	$0.00	$450.00
ONL NCT	**PSY-101-03** M. MALLATT	**351340**			$408.00	$42.00	$0.00	$450.00

PSY-201Z INTRODUCTION TO PSYCHOLOGY I, 4 CREDITS

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 HYB	**PSY-201Z-01** S. KISER	**351341**	**W**	**1-2:50 PM**	$544.00	$56.00	$0.00	$600.00
HAR	**PSY-201Z-02** S. KISER	**351343**	**TTH**	**1-2:50 PM**	$544.00	$56.00	$0.00	$600.00
ONL	**PSY-201Z-03** S. TOBIN	**351344**			$544.00	$56.00	$0.00	$600.00

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 NCT	**PSY-202Z-01** M. MALLATT	**353366**	**TTH**	**10-11:50 AM**	$544.00	$56.00	$0.00	$600.00
ONL	**PSY-202Z-02** S. TOBIN	**351347**			$544.00	$56.00	$0.00	$600.00

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 NCT	**PSY-215-01** E. SAUBER	**351351**	**TTH**	**10-11:50 AM**	$544.00	$56.00	$0.00	$600.00
HAR HYB	**PSY-215-02** S. KISER	**351356**	**T**	**10-11:50 AM**	$544.00	$56.00	$0.00	$600.00
ONL NCT	**PSY-215-03** I. MANCINELLI-FRANCONI	**351358**			$544.00	$56.00	$0.00	$600.00
ONL NCT	**PSY-215-04** T. THOMAS	**351359**			$544.00	$56.00	$0.00	$600.00
ONL NCT	**PSY-215-05** I. MANCINELLI-FRANCONI	**351361**			$544.00	$56.00	$0.00	$600.00

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 NCT	**PSY-219-01** E. SAUBER	**351365**	**MW**	**8-9:50 AM**	$544.00	$56.00	$0.00	$600.00
ONL	**PSY-219-02** S. KISER	**351371**			$544.00	$56.00	$0.00	$600.00
ONL	**PSY-219-03** K. KRASKA	**351373**			$544.00	$56.00	$0.00	$600.00

PSY-231 INTRODUCTION TO HUMAN SEXUALITY, 4 CREDITS

Introduction to research and theories of human sexual behavior, including: sexual relationships, communication and intimacy, sex roles, the development of gender, social trends regarding sexuality, human sexual response, biology of sexuality, and conception.

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

OC NCT	**PSY-231-01** E. SAUBER	**351374**	**MW**	**10-11:50 AM**	$544.00	$56.00	$0.00	$600.00

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 NCT	**PSY-280-01** E. SAUBER	**351378**			$816.00	$84.00	$45.00	$945.00V
	Required: Student Petition. Corequisite: Take the following CWE-281-06.							

Religion

R-103 ASIAN RELIGIONS, 4 CREDITS

An introduction to the history, ideas, and philosophy of Asian religions including Hinduism, Buddhism, Jainism, Sikhism, Taoism, Confucianism, and Shintoism. Examine Asian religions' impact on contemporary culture.

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

ONL	**R-103-01** J. SHELTON	**351382**			$544.00	$56.00	$0.00	$600.00

R-211 HISTORY OF THE OLD TESTAMENT, 4 CREDITS

An introduction to the Old Testament/Tanakh that covers the early developments of the Hebrew community: Patriarchs, Abraham, Moses, and Sinai. Examines Old Testament monarchy, prophets, and wisdom literature. Examines modern theories of biblical interpretation.

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

ONL	**R-211-01** J. SHELTON	**351384**			$544.00	$56.00	$0.00	$600.00

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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 NCT	R-280-01 D. LOUGEE J. SHELTON	351385		$816.00	$84.00	$45.00	$945.00V

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-200 RENEWABLE ENERGY SYSTEMS, 2 CREDITS

This course provides a survey of various renewable energy systems. Participants will learn about the benefits and limitations of each type of energy source as well as their functional principles. Students will participate in several field learning exercises related to energy systems. The intended audiences are technical students wishing to explore the Renewable Energy field and students from the humanities and social sciences wanting a better understanding of this socially important technology.

OC	RET-200-01 S. PAVEY	351376	MW	$272.00	$28.00	9-10:20 AM $87.50	$387.50

RET-215 RENEWABLE ENERGY IV: SYSTEMS DESIGN, 3 CREDITS

This fourth course in the series will concentrate on systems design for renewable energy applications. Students will work together and apply concepts to evaluate, design and select one or more renewable energy systems for solar, wind or micro-hydro installations. Topics will include site surveys, structural elements, electrical generators, energy storage and electrical inversion.

Prerequisites: RET-213

OC	RET-215-01 S. PAVEY	351381	TTH	$408.00	$42.00	9-11:50 AM $131.25	$581.25

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	RET-280-01 C. CONNORS	351383		$1,632.00	$168.00	$570.00	$2,370.00V

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

Small Business Development Center

Registration for these workshops does not require college admission. E-mail 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

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	SBM-010-01WI TBA	354915	TH S	6-9:00 PM 9-5:00 PM

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	SBM-011-01WI TBA	354916	T	6-8:00 PM

SBM-028B CONTRACTOR ESSENTIALS MANAGEMENT - PART 2, 0 CREDIT

Provides information on starting and growing a successful construction business. Teaches students marketing techniques, estimating methods, tax strategies and recordkeeping. Discusses best practices of working with subcontractors and hiring and managing employees.

ONL	SBM-028B-01WI D. TOURNEY	354991		
ONL	SBM-028B-02WI D. TOURNEY	354992		

SBM-029B NEXT LEVEL CONTRACTING: ADVANCED BUSINESS STRATEGIES - PART 2, 0 CREDIT

Provides information on continuing to grow a successful construction business. Teaches students technology and software options and intermediate marketing techniques and strategies. Discusses construction math and conversions.

REM	SBM-029B-01WI D. TOURNEY	354993	W	6:30 -8:00 PM

SBM-031B SCOREBOARDS IN BUSINESS - PART 2, 0 CREDIT

Your scoreboard appears on financial statements in your business: Balance Sheet, Income Statement (Profit & Loss) and Statement of Cash Flows. There are key metrics that run your business. Explore each statement and gain great information to work effectively with your staff, customers, vendors, banks, and your accountant. Learn what the scoreboard is telling you and others. This is not a highly technical class - it's practical and will be a guide.

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ESPAÑOL: Enseñado en español
LCT: Low-Cost Text
NCT: No-Cost Text

Course No	Course Title, Credits	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Tuition	Fee	Time / Crs. Fee	Total
REM	SBM-031B-01WI	354994	T				6:30 -8:00 PM	
			F				6:30 -8:00 PM	
		D. TOURNEY						

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. Before you go too far, find out what it takes to start up your own business. This workshop will help you assess whether business ownership is the right path for you. Discover what resources are available to you for researching, starting-up, financing, and managing your new business.

REM	XSBM-0003-01WI	354912	TH				6:30 -9:30 PM	
	J. SELBY							
REM	XSBM-0003-02WI	354913	TH				6:30 -9:30 PM	
	J. SELBY							
REM	XSBM-0003-03WI	354914	TH				6:30 -9:30 PM	
	J. SELBY							

XSBM-0005 GOING OUT OF BUSINESS, 0 CREDIT

This is a class that helps a business owner begin understanding steps involved in transitioning their business. There are many considerations both for the owner, family members/heirs, employees, customers and vendors as well as the community.

ONL	XSBM-0005-04WI	354987						
	D. TOURNEY							

XSBM-0010 PREPARING FOR THE CCB EXAM, 0 CREDIT

This class will prepare students to qualify for and successfully pass the Construction Contractors Board (CCB) exam required for contractor certification in Oregon. The class is taught by a certified CCB education provider and fulfills the CCB pre-exam educational requirement as stipulated under Oregon Revised Statute 701.280. Course sections are offered in English or Spanish.

HAR	XSBM-0010-31WI	354917	THF				8-5:00 PM	
			THF				11:30 -1:00 PM	
			THF				3:30 -5:30 PM	
	O. FERRER							
HAR	XSBM-0010-32WI	354918	THF				8-5:00 PM	
			THF				11:30 -1:00 PM	
			THF				3:30 -5:30 PM	
	O. FERRER							
HAR	XSBM-0010-33WI	354919	THF				8-5:00 PM	
			THF				11:30 -1:00 PM	
			THF				3:30 -5:30 PM	
	O. FERRER							
HAR	XSBM-0010-34WI	354920	THF				8-5:00 PM	
			THF				11:30 -1:00 PM	
			THF				3:30 -5:30 PM	
	TBA							
HAR	XSBM-0010-35WI	354921	THF				8-5:00 PM	
			THF				11:30 -1:00 PM	
			THF				3:30 -5:30 PM	
	TBA							
HAR	XSBM-0010-36WI	354922	THF				8-5:00 PM	
			THF				11:30 -1:00 PM	
			THF				3:30 -5:30 PM	
	TBA							

XSBM-0024 CONSTRUCTION BUSINESS FUNDAMENTALS: ACCURATE ESTIMATING & FINANCIAL RECORDS, 0 CREDIT

This class is designed to help those students who have successfully completed the Preparing for the CCB Exam class gain a basic understanding of recordkeeping and entry level estimating practices. Course sections are offered in English or Spanish.

ONL	XSBM-0024-01WI	354988						
	D. TOURNEY							
ONL	XSBM-0024-02WI	354989						
	D. TOURNEY							

XSBM-0025 LCB PREP CLASS AND EXAM, 0 CREDIT

This course provides the knowledge and instruction required to complete the Oregon Landscape Contractors Board (LCB) licensing exam, which is administered as part of the class. Topics include state laws and regulations, contracting practices, estimating, contracts, project management, safety, and basic business operations for the landscape construction industry. The course includes guided review and practice questions to support student success and is intended for individuals seeking to become licensed landscape contractors in Oregon. Course sections are offered in English or Spanish.

HAR	XSBM-0025-02WI	354998	MT				8-5:00 PM	
			MT				11:30 -1:00 PM	
			MT				3:30 -5:30 PM	
	S. CROSSWHITE							
HAR	XSBM-0025-03WI	354999	MT				8-5:00 PM	
			MT				11:30 -1:00 PM	
			MT				3:30 -5:30 PM	
	S. CROSSWHITE							
HAR	XSBM-0025-05WI	354923	WF				8-5:00 PM	
			WF				11:30 -1:00 PM	
			WF				3:30 -5:30 PM	
	TBA							

XSBM-0026 EXIT SMART: RETIRING WITH SELLING & SUCCESSION STRATEGIES, 0 CREDIT

Learn how to transition your small business by understanding the options. Succession planning in small business ownership is critical and complex. It is a 3-10 year process that, when done properly, helps owners maximize their return on their investment so they can reach their long-term goals in retirement. This course is designed to teach owners and individuals how to make it happen. Course consists of monthly class meetings, individual business counseling, peer networking, and work in/on the business.

HAR HYB	XSBM-0026-01WI	354990	TH				1-4:00 PM	
	D. TOURNEY							

Social Science

SSC-160 FAITH & REASON, 4 CREDITS

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An introduction of how personal concepts of faith & reason and institutions of science & religion shape personal intellectual landscapes. Examines classical philosophy, sacred texts, worldviews, modern fiction, poetry, theology, cosmology, and evolutionary biology.

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

ONL	SSC-160-01	351413				$544.00	$56.00	$0.00	$600.00
	J. SHELTON								

Sociology

SOC-204Z INTRODUCTION TO SOCIOLOGY, 4 CREDITS

Introduces the central concepts, theories, and methods that define the sociological approach to investigating the social forces that shape our lives. Topics may include social structure, culture, socialization, race, class, gender, sexuality, and inequality.

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

OC HYB	SOC-204Z-01	351389	TH		10-11:50 AM			
	E. PFEIFER					$544.00	$56.00	$0.00	$600.00
OC HYB	SOC-204Z-02	351392	W		1-2:50 PM			
	E. PFEIFER					$544.00	$56.00	$0.00	$600.00

SOC-205Z SOCIAL CHANGE AND INSTITUTIONS, 4 CREDITS

Sociological analysis of social institutions, such as family, education, health care, the economy, and the state. Includes an examination of connections among institutions and their impact on patterns of inequality and individual outcomes. Examines the forces and dynamics behind social change, such as social movements, culture, economic forces, technologies, and the environment.

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

ONL LCT	SOC-205Z-01	351393				$544.00	$56.00	$0.00	$600.00
	J. LOVELESS								

SOC-206Z SOCIAL PROBLEMS, 4 CREDITS

Applies the sociological perspective to the study of social problems, including their social construction, causes, and consequences. Explores the complexities surrounding their solutions, such as how solutions are socially constructed and policy proposals from sociologists and social movements. Topics may include poverty, discrimination, interpersonal violence, crime, addiction, ecological crises, war/global conflict, and health inequality.

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

OC HYB	SOC-206Z-01	351396	W		10-11:50 AM			
	E. PFEIFER					$544.00	$56.00	$0.00	$600.00
OC HYB	SOC-206Z-02	351398	TH		1-2:50 PM			
	E. PFEIFER					$544.00	$56.00	$0.00	$600.00

SOC-207 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

ONL LCT	SOC-207-01	351399				$544.00	$56.00	$0.00	$600.00
	J. LOVELESS								

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 NCT	SOC-210-01	351400				$544.00	$56.00	$0.00	$600.00
	J. LOVELESS								

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 NCT	SOC-280-01	351402				$816.00	$84.00	$45.00	$945.00V
	E. PFEIFER								
	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 higher with a C or better, or placement in STAT-243Z

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

OC NCT	STAT-243Z-01	351415	MW		10-11:50 AM			
	M. YANNOTTA					$544.00	$56.00	$27.00	$627.00
OC NCT	STAT-243Z-02	351419	MW		1-2:50 PM			
	T. BIEBER					$544.00	$56.00	$27.00	$627.00
OC NCT	STAT-243Z-03	351420	TTH		1-2:50 PM			
	T. BIEBER					$544.00	$56.00	$27.00	$627.00
ONL NCT	STAT-243Z-10	351421							
	K. PHILLIPS					$544.00	$56.00	$27.00	$627.00
ONL NCT	STAT-243Z-11	353437							
	K. PHILLIPS					$544.00	$56.00	$27.00	$627.00

Theatre Arts

TA-102 APPRECIATION OF THEATRE, 4 CREDITS

Students will be introduced to the many aspects of theatre arts at an intermediate level by attending multiple area productions. Plays will be reviewed and evaluated through writing assignments and discussions.

Recommended Prerequisites: TA-101 and WRD-098 or placement in WR-121Z

ONL NCT	TA-102-01	351390				$544.00	$56.00	$20.00	$620.00
	A. MOON								

TA-112 FUNDAMENTALS OF TECHNICAL THEATRE, 4 CREDITS

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Second class of a three-part series. Intermediate study and practice of script analysis and conceptualization as it applies to scenes, lighting and sound in theater productions. Students will use collaborative techniques of staging various types of productions for presentation. Includes intermediate principles and techniques in stage design, construction, and lighting. Students must attend a performance as well as participate in the focus and strike of a production. Students are required to maintain an independent journal/study of outside class activity and observations of Technical Theatre applications.

OC NCT	TA-112-01	351391	TTH			1-3:50 PM	
	C. WHITTEN			$544.00	$56.00	$35.00	$635.00

TA-122 COSTUMING II, 3 CREDITS

Second in a three-part series. This course focuses on the principles and practice of theatrical costume design, including basic design aspects, playscript and character analysis, research techniques, costume maintenance and costume rendering. Students learn costume construction and costume design techniques through a series of hands-on projects. May be repeated for up to 6 credits.

Prerequisites: TA-121

OC	TA-122-01	351394	MW			10-12:50 PM	
	A. MCFARLAND			$408.00	$42.00	$0.00	$450.00

TA-142 ACTING II, 4 CREDITS

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. Intermediate work on vocal, physical, and script analysis skills with special focus on language. Second in a series.

Recommended Prerequisites: TA-141 and WRD-098 or placement in WR-121Z

OC NCT	TA-142-01	351395	MW			10-11:50 AM	
	A. MOON			$544.00	$56.00	$35.00	$635.00

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 9 credits. Required: Student Petition.

Required: Successful audition/interview

Recommended Prerequisite or Corequisite: TA-141 and TA-142, or TA-143; or TA-111 and TA-112, or TA-113

OC NCT	TA-153-01	351397	MWF			3-5:50 PM	
	A. MOON			$408.00	$42.00	$25.00	$475.00V
	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 9 credits.

OC NCT	TA-195-01	351401	MWF			12-2:50 PM	
	A. MCFARLAND			$408.00	$42.00	$35.00	$485.00V
	A. MOON						
	C. WHITTEN						
	Meets: One-Acts 12-2:50pm, Writing for Theatre 12-1:30pm M/W, Singing for Theatre 12-2:50pm F.						

TA-212 TECHNICAL THEATRE STUDY, 4 CREDITS

Second class of a three part series. Comprehensive study and practice in presentational graphics, scene design, lighting design and chromatics. The full creative process of staging a production will be explored through aesthetic research and design projects; in direct support of the student performance showcase. Includes hands-on participation in CCC's main stage productions. Students must attend a performance as well as participate in the focus and strike of a production. Students are required to maintain a journal/study of outside class activities and observe Technical Theatre applications.

Prerequisites: TA-111, TA-112, and TA-113

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

OC NCT	TA-212-01	351403	TTH			1-3:50 PM	
	C. WHITTEN			$544.00	$56.00	$35.00	$635.00

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

OC NCT	TA-253-01	351405	MWF			3-5:50 PM	
	A. MOON			$408.00	$42.00	$25.00	$475.00V
	Required: Student Petition.						

TA-280 THEATRE/CWE, 2-6 CREDITS (VAR)

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

OC NCT	TA-280-01	351407					
	C. WHITTEN			$816.00	$84.00	$45.00	$945.00V
	Required: Student Petition.						

TA-295 STUDENT PERFORMANCE SHOWCASE, 1-3 CREDITS (VAR)

Training in special forms of theatrical performance techniques through in-class intensive preparation, study, and program development for public presentation, including, but not limited to, 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.

Prerequisites: TA-195

OC NCT	TA-295-01	351411	MWF			12-2:50 PM	
	A. MCFARLAND			$408.00	$42.00	$35.00	$485.00V
	A. MOON						
	C. WHITTEN						
	Meets: One-Acts 12-2:50pm, Writing for Theatre 12-1:30pm M/W, Singing for Theatre 12-2:50pm F.						

XATH-0001 PLAYS & REHEARSALS, 0 CREDIT

Training in theatre production through intensive study and rehearsal of scenes and plays for public performance.

OC	XATH-0001-01	351580	MWF			3-5:50 PM	
	A. MOON			$0.00	$0.00	$35.00	$35.00

XATH-0002 STAGECRAFT, 0 CREDIT

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Training in special forms of theatrical presentation through in-class intensive preparation, study and program development for public presentation to the community.

OC	XATH-0002-01	351581	MWF		3-5:50 PM		
	A. MOON		$0.00	$0.00	$35.00	$35.00	

Water & Environmental Technology

WET-020 WASTEWATER OPERATIONS II, 3 CREDITS

For professional upgrade only. Does not meet the requirements for the certificate or degree. Secondary wastewater treatment alternatives with municipal application. Fixed and suspended film systems and clarification process. Includes biological sludge treatment.

Prerequisites: WET-010

OC	WET-020-01	351416	M		6-8:50 PM		
	M. LAFORCE		$408.00	$42.00	$15.00	$465.00	

WET-021 WATERWORKS OPERATIONS II, 3 CREDITS

For professional upgrade only. Does not meet the requirements for the certificate or degree. Basic hydrology, ground water and surface water sources, well construction and operation, introduction to water chemistry, waterworks hydraulics, and fundamentals of pumps and pumping.

OC	WET-021-01	351417	T		6-8:50 PM		
	J. NURMI		$408.00	$42.00	$15.00	$465.00	

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	WET-108-01	351418	TWTHF		8-4:50 PM		
	J. NURMI		$408.00	$42.00	$0.00	$450.00	
	Meets: 3/16-3/19.						

WET-109 BACKFLOW ASSEMBLY OPERATION AND TESTING, 4 CREDITS

Lecture course with hands on activities that focuses on backflow assembly hydraulics, operations, installation, and testing.

OC	WET-109-01	351422	MTWTHF		8-4:50 PM		
	M. LAFORCE		$544.00	$56.00	$0.00	$600.00	
	Required: Student Petition. Meets: 3/15-3/19.						

WET-120 WASTEWATER OPERATIONS II, 3 CREDITS

Secondary wastewater treatment alternatives with municipal application. Fixed and suspended film systems with the associated clarification process will be presented.

Corequisites: MTH-082C
Prerequisites: WET-110

OC	WET-120-01	351424	M		6-8:50 PM		
	M. LAFORCE		$408.00	$42.00	$15.00	$465.00	

WET-121 WATERWORKS OPERATIONS II, 3 CREDITS

An introduction to water distribution, with a focus on water regulations, operator math, water chemistry, and specific water distribution processes. Also examines distribution system design, water mains, hydrants and valves, water pumps, water system supply security, and public relations. Everything you need to know to pass the water distribution grade 1 state certification.

Corequisites: MTH-082D
Prerequisites: WET-111

OC	WET-121-01	351425	T		6-8:50 PM		
	J. NURMI		$408.00	$42.00	$15.00	$465.00	

WET-122 WATER DISTRIBUTION AND WASTEWATER COLLECTION SYSTEMS, 3 CREDITS

Elementary engineering aspects of water distribution and wastewater collection systems. System components, construction materials, pump station design, maintenance, operations, and other related topics.

Prerequisites: WET-110
Corequisites: WET-120

OC	WET-122-01	351426	T		12:30 -3:20 PM		
	M. LAFORCE		$408.00	$42.00	$15.00	$465.00	

WET-123 ENVIRONMENTAL CHEMISTRY I, 3 CREDITS

Theory and applied laboratory techniques for testing water and wastewater. Students will test wastewater for NPDES required tests.

Corequisites: WET-123L

OC LCT	WET-123-01	351429	M		12-1:50 PM		
	M. LAFORCE		$408.00	$42.00	$50.00	$500.00	
OC	WET-123-02	351430	W		12-1:50 PM		
	M. LAFORCE		$408.00	$42.00	$50.00	$500.00	

WET-123L ENVIRONMENTAL CHEMISTRY I LAB, 0 CREDIT

Lab course for WET-123

Corequisites: WET-123

OC LCT	WET-123L-01	351431	M		2-4:50 PM		
	M. LAFORCE		$0.00	$0.00	$28.00	$28.00	
OC	WET-123L-02	351432	W		2-4:50 PM		
	M. LAFORCE		$0.00	$0.00	$28.00	$28.00	

WET-135 HIGH PURITY WATER PRODUCTION II, 4 CREDITS

A lab course focusing on the operation of equipment and unit processes in the production of high purity water. Emphasis on process equipment sizing and design, process control and troubleshooting.

Prerequisites: WET-125 and MTH-082E

REM	WET-135-01	351434	M		1-3:50 PM		
			M		4-6:50 PM		
	G. CARR		$544.00	$56.00	$0.00	$600.00	

WET-180 WATER & ENVIRONMENTAL PROJECTS I, 5 CREDITS

Cooperative work experience. 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 LCT	WET-180-01	351436					
	M. LAFORCE		$680.00	$70.00	$45.00	$795.00	
	Required: Student Petition. Corequisite: Take the following CWE-281-01.						

WET-280 WATER & ENVIRONMENTAL PROJECTS II, 5 CREDITS

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Cooperative work experience. Practical work experience in a municipal industrial treatment, distribution, or collection system. Placement in consulting firms, federal and state regulatory agencies, BLM, BPA, and other regulated governmental organizations. Practical experience in a municipal, public or private wastewater treatment facility of specific activated sludge design. Process loading criteria, data acquisition and trend charting, and relevant sanitary process strategies will be addressed.

Corequisites: CWE-281

ONL LCT	**WET-280-01**	**351440**				$680.00	$70.00	$45.00	$795.00
	M. LAFORCE								
	Required: Student Petition. Corequisite: Take the following CWE-281-01.								

XWET-C001 1-DAY CROSS CONNECTION SPECIALIST UPDATE, 0.70 CEUS

Update on code information or any changes in the program.

OC LCT	**XWET-C001-31**	**351603**	**F**		**8-3:50 PM**			
	J. NURMI					$0.00	$0.00	$0.00	$0.00
	Meets: 3/12. Register on www.ccc-wet.eventbrite.com.								

XWET-C002 1-DAY TESTER RENEWAL, 0.70 CEUS

Update on OARs and hands on testing to recertify student for backflow assembly certification through the State of Oregon.

OC LCT	**XWET-C002-11**	**351604**	**F**		**8-4:50 PM**			
	M. LAFORCE					$0.00	$0.00	$0.00	$0.00
	Meets: 2/5. Register at https://ccc-wet.eventbrite.com/.								
OC	**XWET-C002-12**	**351605**	**F**		**8-4:50 PM**			
	M. LAFORCE					$0.00	$0.00	$0.00	$0.00
	Meets: 3/5. Register at https://ccc-wet.eventbrite.com/.								

XWET-C003 2-DAY TESTER RETRAIN/RENEWAL, 1.40 CEUS

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 transcripted for appropriate number of CEUs. Students will be able to apply to Oregon Health Department for recertification by that agency.

OC	**XWET-C003-21**	**351606**	**THF**		**8-4:50 PM**			
	M. LAFORCE					$0.00	$0.00	$0.00	$0.00
	Meets: 1/14-1/15. Register at https://ccc-wet.eventbrite.com/.								
OC	**XWET-C003-22**	**351607**	**THF**		**8-4:50 PM**			
	M. LAFORCE					$0.00	$0.00	$0.00	$0.00
	Meets: 2/18-2/19. Register at https://ccc-wet.eventbrite.com/.								

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	**XWET-C005-51**	**351609**	**MTWTHF**		**8-4:50 PM**			
	M. LAFORCE					$0.00	$0.00	$0.00	$0.00
	Meets: 3/15-3/19. Register at https://ccc-wet.eventbrite.com/.								

Welding Technology

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

WLD-100 WELDER'S PRINT READING I, 3 CREDITS

Provides instruction in reading and interpretation of prints and symbols common in the welding industry. Participants will learn the interpretation and application of basic lines, dimensions, structural shapes, and specifications. Welding symbols and their application to different types of joint configurations will be covered, as well as how to develop basic shop drawings and prints.

OC	**WLD-100-01**	**351443**	**TH**		**2-4:50 PM**			
	D. PODKOWA					$408.00	$42.00	$219.00	$669.00
OC	**WLD-100-02**	**351451**	**T**		**6-8:50 PM**			
	D. PODKOWA					$408.00	$42.00	$219.00	$669.00

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 NCT	**WLD-102-01**	**351452**	**F**		**6-9:50 PM**			
	A. TOWN					$272.00	$28.00	$146.00	$446.00
OC NCT	**WLD-102-02**	**351460**	**S**		**9-12:50 PM**			
	K. DRURY					$272.00	$28.00	$146.00	$446.00
OC NCT	**WLD-102-03**	**351462**	**S**		**2-5:50 PM**			
	K. DRURY					$272.00	$28.00	$146.00	$446.00

WLD-102ES INTRODUCCIÓN A LA SOLDADURA, 2 CREDITS

Diseñado para soldaderos principantes y experimental. Incluye corte y soldadura oxiacetileno, soldadura por arco de metal blindado (SMAW), la soldaduro 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 LCT ESPAÑOL	**WLD-102ES-01**	**351464**	**S**		**6-9:50 PM**			
	F. PAXTOR					$272.00	$28.00	$146.00	$446.00

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.

Campus Locations:
HAR: Harmony Community Campus
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Other Coding Translations:
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VAR: Variable credit class

ESPAÑOL: Enseñado en español
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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 LCT	**WLD-103-01** M. TIZO	**351465**	**F** $272.00	$28.00	**6-9:50 PM** $146.00	$446.00
OC LCT	**WLD-103-02** M. TIZO	**351469**	**SU** $272.00	$28.00	**10-1:50 PM** $146.00	$446.00

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. Required: Student Petition.

OC NCT	**WLD-110-01** B. MULLIGAN J. PHELPS Required: Student Petition.	**351473**	**MW** $544.00	$56.00	**8-11:50 AM** $432.00	$1,032.00
OC NCT	**WLD-110-02** B. MULLIGAN R. THOMAS Required: Student Petition.	**351480**	**MW** $544.00	$56.00	**1-4:50 PM** $432.00	$1,032.00
OC NCT	**WLD-110-03** B. MULLIGAN D. PODKOWA Required: Student Petition.	**351481**	**MW** $544.00	$56.00	**6-9:50 PM** $432.00	$1,032.00
OC NCT	**WLD-110-04** B. MULLIGAN J. PHELPS Required: Student Petition.	**351484**	**TTH** $544.00	$56.00	**8-11:50 AM** $432.00	$1,032.00
OC NCT	**WLD-110-05** B. MULLIGAN Required: Student Petition.	**351489**	**TTH** $544.00	$56.00	**6-9:50 PM** $432.00	$1,032.00
OC NCT	**WLD-110-06** B. MULLIGAN Required: Student Petition.	**351491**	**TTH** $544.00	$56.00	**1-4:50 PM** $432.00	$1,032.00
OC NCT	**WLD-110-07** K. DRURY B. MULLIGAN Required: Student Petition.	**351493**	**T** **W** **TH** **M** $544.00	$56.00	**12:01 -1:50 AM** **10-11:59 PM** **12:01 -1:50 AM** **10-11:59 PM** $432.00	$1,032.00

WLD-111 SHIELDED METAL ARC WELDING (STICK), 8 CREDITS

Provides students with the opportunity to acquire knowledge and skills to set up and operate equipment to perform fillet and groove welds in all positions with the SMAW process. Oxy-fuel cutting, air carbon arc cutting and gouging will be covered. Welding codes, standards, and specifications will be reviewed.

OC	**WLD-111-02** K. DRURY	**351496**	**TWTHF** **MTWTH** $1,088.00	$112.00	**12:01 -1:50 AM** **10-11:59 PM** $584.00	$1,784.00

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	**WLD-111A-02** K. DRURY	**351504**	**TTH** **MW** $544.00	$56.00	**12:01 -1:50 AM** **10-11:59 PM** $292.00	$892.00

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	**WLD-111B-02** K. DRURY	**351511**	**TTH** **WF** $544.00	$56.00	**10-11:59 PM** **12:01 -1:50 AM** $292.00	$892.00

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	**WLD-113-01** R. THOMAS	**351518**	**MTWTH** $1,088.00	$112.00	**6-9:50 PM** $584.00	$1,784.00

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	**WLD-113A-01** R. THOMAS	**351522**	**MW** $544.00	$56.00	**6-9:50 PM** $292.00	$892.00
OC	**WLD-113A-02** R. ABBOTT	**351526**	**MTWTH** $544.00	$56.00	**7:30 -9:20 AM** $292.00	$892.00
OC	**WLD-113A-02A** R. ABBOTT Required: Student Petition. CTE Pathways section, For more information contact HS Connections 503-594-3161.	**351528**	**MTWTH** $544.00	$56.00	**7:30 -9:20 AM** $292.00	$892.00
OC	**WLD-113A-03** R. ABBOTT	**351530**	**MTWTH** $544.00	$56.00	**1:15 -3:05 PM** $292.00	$892.00
OC	**WLD-113A-03A** R. ABBOTT Required: Student Petition. CTE Pathways section, For more information contact HS Connections 503-594-3161.	**351532**	**MTWTH** $544.00	$56.00	**1:15 -3:05 PM** $292.00	$892.00
OC	**WLD-113A-04** R. ABBOTT	**351534**	**MTWTH** $544.00	$56.00	**3:30 -5:20 PM** $292.00	$892.00
OC	**WLD-113A-04A** R. ABBOTT Required: Student Petition. CTE Pathways section, For more information contact HS Connections 503-594-3161.	**351536**	**MTWTH** $544.00	$56.00	**3:30 -5:20 PM** $292.00	$892.00

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	**WLD-113B-01** R. THOMAS	**351540**	**TTH** $544.00	$56.00	**6-9:50 PM** $292.00	$892.00

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Course No	Course Title, Credits / Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC	**WLD-113B-02**	**351542**	**MTWTH**			**7:30 -9:20 AM**	
	R. ABBOTT			$544.00	$56.00	$292.00	$892.00
OC	**WLD-113B-02A**	**351543**	**MTWTH**			**7:30 -9:20 AM**	
	R. ABBOTT			$544.00	$56.00	$292.00	$892.00
	Required: Student Petition. CTE Pathways section, For more information contact HS Connections 503-594-3161.						
OC	**WLD-113B-03**	**351544**	**MTWTH**			**1:15 -3:05 PM**	
	R. ABBOTT			$544.00	$56.00	$292.00	$892.00
OC	**WLD-113B-03A**	**351545**	**MTWTH**			**1:15 -3:05 PM**	
	R. ABBOTT			$544.00	$56.00	$292.00	$892.00
	Required: Student Petition. CTE Pathways section, For more information contact HS Connections 503-594-3161.						
OC	**WLD-113B-04**	**351546**	**MTWTH**			**3:30 -5:20 PM**	
	R. ABBOTT			$544.00	$56.00	$292.00	$892.00
OC	**WLD-113B-04A**	**351547**	**MTWTH**			**3:30 -5:20 PM**	
	R. ABBOTT			$544.00	$56.00	$292.00	$892.00
	Required: Student Petition. CTE Pathways section, For more information contact HS Connections 503-594-3161.						

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	**WLD-115-01**	**351549**	**MTWTH**			**8-11:50 AM**	
	D. BATES			$1,088.00	$112.00	$584.00	$1,784.00

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	**WLD-115A-01**	**351550**	**MW**			**8-11:50 AM**	
	D. BATES			$544.00	$56.00	$292.00	$892.00

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	**WLD-115B-01**	**351551**	**TTH**			**8-11:50 AM**	
	D. BATES			$544.00	$56.00	$292.00	$892.00

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.

OC LCT	**WLD-150-01**	**351552**	**MW**			**6-9:50 PM**	
	D. PODKOWA			$544.00	$56.00	$292.00	$892.00
OC LCT	**WLD-150-02**	**351553**	**MW**			**8-11:50 AM**	
	J. PHELPS			$544.00	$56.00	$292.00	$892.00

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	**WLD-200-01**	**351554**	**T**			**2-4:50 PM**	
	D. PODKOWA			$408.00	$42.00	$219.00	$669.00

WLD-203 BLACKSMITHING & TRADITIONAL IRON WORKING II, 2 CREDITS

This course builds on WLD-103 and expands on the process of forged metal work. Instruction includes treadle hammer use, tooling design, traditional joinery, and intermediate projects. Welding experience helpful, but not required.

OC	**WLD-203-01**	**353444**	**SU**			**10-1:50 PM**	
	M. TIZO			$272.00	$28.00	$146.00	$446.00

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 NCT	**WLD-210-01**	**351555**	**MW**			**1-4:50 PM**	
	R. THOMAS			$544.00	$56.00	$292.00	$892.00
	Required: Student Petition.						

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 LCT	**WLD-212-01**	**351556**	**MW**			**1-4:50 PM**	
	R. THOMAS			$544.00	$56.00	$292.00	$892.00
	Required: Student Petition.						

WLD-213 ADVANCED GAS METAL ARC WELDING/FLUX CORE ARC WELDING, 4 CREDITS

This course provides the opportunity for students to acquire the knowledge and skills needed to perform quality fillet and groove welds in all positions using the Gas Metal Arc Welding (GMAW) and Flux Core Arc Welding (FCAW) processes. Advanced welding theory and procedures will also be included.

Prerequisites: WLD-113; or WLD-113A and WLD-113B

OC NCT	**WLD-213-01**	**351557**	**TTH**			**6-9:50 PM**	
	B. MULLIGAN			$544.00	$56.00	$292.00	$892.00

WLD-215 ADVANCED GAS TUNGSTEN ARC WELDING, 4 CREDITS

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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
NCT: No-Cost Text

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

Course No	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC NCT	WLD-215-01	351558	TTH 8-11:50 AM				
	J. PHELPS			$544.00	$56.00	$292.00	$892.00

WLD-250 WELDING FABRICATION I BEGINNING PROJECT, 4 CREDITS

This course consists of lecture and lab and provides instruction in fabrication techniques including blueprint reading, layout, sketching, bills of material, job cost calculations, measuring, fitting, cutting and welding. Students will be assigned beginning fabrication projects. The student will be responsible for all aspects of managing the project to successful completion.

Prerequisites: WLD-111, WLD-111A and WLD-111B, WLD-113, WLD-113A and WLD-113B, WLD-115, or WLD-115A and WLD-115B

Course No	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC NCT	WLD-250-01	351559	TTH 1-4:50 PM				
	B. MULLIGAN			$544.00	$56.00	$292.00	$892.00

WLD-251 WELDING FABRICATION II INTERMEDIATE PROJECT, 4 CREDITS

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.

Prerequisites: WLD-250

Course No	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC NCT	WLD-251-01	351560	TTH 1-4:50 PM				
	B. MULLIGAN			$544.00	$56.00	$292.00	$892.00

WLD-252 WELDING FABRICATION III ADVANCED PROJECT, 4 CREDITS

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 assigned advanced fabrication projects. The student will be responsible for all aspects of managing the project to successful completion.

Prerequisites: WLD-251

Course No	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC NCT	WLD-252-01	351561	TTH 1-4:50 PM				
	B. MULLIGAN			$544.00	$56.00	$292.00	$892.00

WLD-261 WELDING SPECIAL PROJECTS, 1-2 CREDITS (VAR)

Allows students to improve their welding skills while working on instructor-approved projects. May be repeated for up to 12 credits.

Course No	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC NCT	WLD-261-01	351562	M 8-11:50 AM				
	D. BATES			$272.00	$28.00	$146.00	$446.00V
	Required: Student Petition.						
OC NCT	WLD-261-02	351563	M 1-4:50 PM				
	R. THOMAS			$272.00	$28.00	$146.00	$446.00V
	Required: Student Petition.						
OC NCT	WLD-261-03	351564	M 6-9:50 PM				
	R. THOMAS			$272.00	$28.00	$146.00	$446.00V
	Required: Student Petition.						
OC NCT	WLD-261-05	351565	T 8-11:50 AM				
	D. BATES			$272.00	$28.00	$146.00	$446.00V
	Required: Student Petition.						
OC NCT	WLD-261-07	351566	T 6-9:50 PM				
	R. THOMAS			$272.00	$28.00	$146.00	$446.00V
	Required: Student Petition.						
OC NCT	WLD-261-08	351567	T W 10-11:59 PM 12:01 -1:50 AM				
	K. DRURY			$272.00	$28.00	$146.00	$446.00V
	Required: Student Petition.						
OC NCT	WLD-261-09	351568	W 8-11:50 AM				
	D. BATES			$272.00	$28.00	$146.00	$446.00V
	Required: Student Petition.						
OC NCT	WLD-261-10	351569	W 1-4:50 PM				
	R. THOMAS			$272.00	$28.00	$146.00	$446.00V
OC NCT	WLD-261-11	351570	W 6-9:50 PM				
	R. THOMAS			$272.00	$28.00	$146.00	$446.00V
OC NCT	WLD-261-13	351571	TH 8-11:50 AM				
	D. BATES			$272.00	$28.00	$146.00	$446.00V
	Required: Student Petition.						
OC NCT	WLD-261-14	351572	TH 1-4:50 PM				
	B. MULLIGAN			$272.00	$28.00	$146.00	$446.00V
	Required: Student Petition.						
OC NCT	WLD-261-15	351573	TH 6-9:50 PM				
	R. THOMAS			$272.00	$28.00	$146.00	$446.00V
	Required: Student Petition.						
OC NCT	WLD-261-16	351574	TH F 10-11:59 PM 12:01 -1:50 AM				
	K. DRURY			$272.00	$28.00	$146.00	$446.00V
	Required: Student Petition.						
OC NCT	WLD-261-19	351575	F 6-9:50 PM				
	M. TIZO			$272.00	$28.00	$146.00	$446.00V
	Required: Student Petition.						
OC NCT	WLD-261-20	351576	S 9-12:50 PM				
	K. DRURY			$272.00	$28.00	$146.00	$446.00V
	Required: Student Petition.						
OC NCT	WLD-261-21	351577	S 2-5:50 PM				
	K. DRURY			$272.00	$28.00	$146.00	$446.00V
	Required: Student Petition.						
OC NCT	WLD-261-23	351578	SU 10-1:50 PM				
	M. TIZO			$272.00	$28.00	$146.00	$446.00V
	Required: Student Petition.						

XWLD-0001 AMERICAN WELDING SOCIETY (WLD) CERTIFICATION 1 PLATE TEST, 0 CREDIT

Welder certification in accordance with AWS D1.1 for one position for students enrolled in any CCC welding course.

Course No	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC	XWLD-0001-01	351611	TBA				
	B. MULLIGAN			$0.00	$0.00	$140.00	$140.00
	Required: Student Petition.						

XWLD-0002 AMERICAN WELDING SOCIETY CERTIFICATION 2 PLATE OR 1 PIPE TEST, 0 CREDIT

Welder certification in any two positions, in accordance with AWS D1.1 for students enrolled in any CCC welding course.

Course No	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU) / Time	Tuition	Fee	Crs. Fee	Total
OC	XWLD-0002-01	351612	TBA				
	B. MULLIGAN			$0.00	$0.00	$280.00	$280.00
	Required: Student Petition.						

XWLD-0003 AMERICAN WELDING SOCIETY CERTIFICATION RETAKE TEST, 0 CREDIT

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Distance Education Notification:
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HYB: In-person plus online work

Other Coding Translations:
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VAR: Variable credit class

ESPAÑOL: Enseñado en español
LCT: Low-Cost Text
NCT: No-Cost Text

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

Welder certification on retest in any position, in accordance with AWS D1.1 for students enrolled in any CCC welding course. Required: Student Petition.

OC	XWLD-0003-01	351613	TBA						
	B. MULLIGAN					$0.00	$0.00	$25.00	$25.00
	Required: Student Petition.								

Women's Studies

WS-101 INTRODUCTION TO WOMEN'S STUDIES, 4 CREDITS

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.

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

OC HYB NCT	WS-101-01	353367	T		3-4:50 PM				
	T. BOYLE-GALESTIANTZ					$544.00	$56.00	$0.00	$600.00
ONL NCT	WS-101-02	353368							
	R. MOFFETT					$544.00	$56.00	$0.00	$600.00

World Languages

ASL-101 FIRST-YEAR AMERICAN SIGN LANGUAGE I, 4 CREDITS

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.

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

OC	ASL-101-01	350659	MW		10-11:50 AM				
	A. ELLIS					$544.00	$56.00	$10.00	$610.00
	One-time textbook purchase for ASL-101 & ASL-102.								
ONL	ASL-101-02	350663							
	A. ELLIS					$544.00	$56.00	$10.00	$610.00
	One-time textbook purchase for ASL-101 & ASL-102.								

ASL-102 FIRST-YEAR AMERICAN SIGN LANGUAGE II, 4 CREDITS

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.

Prerequisites: ASL-101 with a C or better

OC	ASL-102-01	350665	MW		1-2:50 PM				
	A. ELLIS					$544.00	$56.00	$10.00	$610.00
	One-time textbook purchase for ASL-101 & ASL-102.								
ONL	ASL-102-02	350670							
	A. ELLIS					$544.00	$56.00	$10.00	$610.00
	One-time textbook purchase for ASL-101 & ASL-102.								

ASL-202 SECOND-YEAR AMERICAN SIGN LANGUAGE II, 4 CREDITS

Continuation of ASL-201. Emphasizes active communication in sign language. Increased emphasis on exploring, analyzing the rules, and presenting stories and literature in sign language.

Prerequisites: ASL-201 with a C or better

REM	ASL-202-01	350672	TTH		10-11:50 AM				
	A. ELLIS					$544.00	$56.00	$10.00	$610.00
	One-time textbook purchase for ASL-202 & ASL-203.								

FR-102 FIRST-YEAR FRENCH II, 4 CREDITS

Second 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.

Prerequisites: FR-101

OC NCT	FR-102-01	350980	TTH		10-11:50 AM				
	E. HERNANDEZ					$544.00	$56.00	$10.00	$610.00

GER-101 FIRST-YEAR GERMAN I, 4 CREDITS

First 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.

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

OC NCT	GER-101-01	354907	TTH		1-2:50 PM				
	E. HERNANDEZ					$544.00	$56.00	$10.00	$610.00

SPN-101Z FIRST-YEAR SPANISH I, 4 CREDITS

An introduction to the language, cultural practices, and perspectives of Spanish-speaking communities both locally and globally. Cultivates listening, speaking, reading, writing, and intercultural competence through conversation, cultural exploration, and other activities. Designed for beginners as the first of three in the sequence of First-year Spanish courses (SPN-101Z, SPN-102Z, and SPN-103Z). If you have experience speaking Spanish at home, in your community, or abroad, please consult with the instructor to make sure this class is the best for your level.

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

OC NCT	SPN-101Z-01	351404	TTH		10-11:50 AM				
	A. METHADZOVIC					$544.00	$56.00	$10.00	$610.00
ONL NCT	SPN-101Z-02	351406							
	A. METHADZOVIC					$544.00	$56.00	$10.00	$610.00

SPN-102Z FIRST-YEAR SPANISH II, 4 CREDITS

Builds on the foundational skills of Spanish 101Z including the language, cultural practices, and perspectives of Spanish-speaking communities both locally and globally. Continues to cultivate listening, speaking, reading, writing, and intercultural competence through conversation, cultural exploration, and other activities. Designed for those who have completed a term of college-level Spanish (or equivalent) as the second of three in the sequence of First-year Spanish courses (SPN-101Z, SPN-102Z, and SPN-103Z). If you have experience speaking Spanish at home, in your community, or abroad, please consult with the instructor to make sure this class is the best for your level.

Prerequisites: SPN-101Z

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

OC NCT	SPN-102Z-01	351408	TTH		1-2:50 PM				
	A. METHADZOVIC					$544.00	$56.00	$10.00	$610.00
ONL NCT	SPN-102Z-02	351409							
	E. HERNANDEZ					$544.00	$56.00	$10.00	$610.00
ONL NCT	SPN-102Z-03	355011							
	A. METHADZOVIC					$544.00	$56.00	$10.00	$610.00

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SPN-202	**SECOND-YEAR SPANISH II, 4 CREDITS**							
	Second of a three-term intermediate, multimedia course. Focus is on speaking, listening comprehension, reading and writing. Explores cultural differences among Spanish-speaking countries and between the latter and European-American culture.							
	Prerequisites: SPN-201							
ONL NCT	**SPN-202-01**	**351412**						
	E. HERNANDEZ				$544.00	$56.00	$10.00	$610.00

Writing

WR-101	**WORKPLACE WRITING, 4 CREDITS**							
	Students in this course learn and practice basic modes of technical writing, including summaries, process analysis, instructions, and reports.							
	Prerequisites: WRD-098 or placement in WR-101 or WR-121Z							
OC HYB NCT	**WR-101-01**	**351423**	**M**	**3-4:50 PM**				
	W. DAWKINS				$544.00	$56.00	$19.00	$619.00
ONL NCT	**WR-101-02**	**351427**						
	L. ORMANDY				$544.00	$56.00	$19.00	$619.00
WR-121Z	**COMPOSITION I, 4 CREDITS**							
	WR-121Z engages students in the study and practice of critical thinking, reading, and writing. The course focuses on analyzing and composing across varied rhetorical situations and in multiple genres. Students will apply key rhetorical concepts flexibly and collaboratively throughout their writing and inquiry processes.							
	Prerequisites: WRD-098 or placement in WR-121Z							
OC NCT	**WR-121Z-01**	**351428**	**MW**	**9-10:50 AM**				
	T. DONNELLY				$544.00	$56.00	$19.00	$619.00
OC NCT	**WR-121Z-01CO**	**354943**	**MW**	**9-10:50 AM**				
	T. DONNELLY				$544.00	$56.00	$19.00	$619.00
	Corequisite: Take the following WR-199-01.							
OC NCT	**WR-121Z-02**	**351433**	**MW**	**10-11:50 AM**				
	J. DAVIS				$544.00	$56.00	$19.00	$619.00
OC	**WR-121Z-03**	**351435**	**TTH**	**1-2:50 PM**				
	A. WARREN				$544.00	$56.00	$19.00	$619.00
OC	**WR-121Z-03CO**	**354944**	**TTH**	**1-2:50 PM**				
	A. WARREN				$544.00	$56.00	$19.00	$619.00
	Corequisite: Take the following WR-199-03.							
OC NCT	**WR-121Z-04**	**351437**	**MW**	**1-2:50 PM**				
	A. ENCINAS				$544.00	$56.00	$19.00	$619.00
OC NCT	**WR-121Z-05**	**351438**	**TTH**	**10-11:50 AM**				
	R. DAVIS				$544.00	$56.00	$19.00	$619.00
OC NCT	**WR-121Z-06**	**351439**	**TTH**	**9-10:50 AM**				
	J. DAVIS				$544.00	$56.00	$19.00	$619.00
OC NCT	**WR-121Z-06CO**	**354945**	**TTH**	**9-10:50 AM**				
	J. DAVIS				$544.00	$56.00	$19.00	$619.00
	Corequisite: Take the following WR-199-06.							
OC NCT	**WR-121Z-07**	**351441**	**TTH**	**1-2:50 PM**				
	R. DAVIS				$544.00	$56.00	$19.00	$619.00
OC HYB NCT	**WR-121Z-08**	**351442**	**M**	**10-11:50 AM**				
	T. WALKER				$544.00	$56.00	$19.00	$619.00
OC HYB NCT	**WR-121Z-09**	**351444**	**M**	**1-2:50 PM**				
	C. BURNELL				$544.00	$56.00	$19.00	$619.00
OC HYB NCT	**WR-121Z-10**	**351445**	**T**	**1-2:50 PM**				
	T. WALKER				$544.00	$56.00	$19.00	$619.00
OC HYB NCT	**WR-121Z-11**	**351446**	**T**	**10-11:50 AM**				
	T. WALKER				$544.00	$56.00	$19.00	$619.00
ONL LCT	**WR-121Z-12**	**351447**						
	M. WARREN				$544.00	$56.00	$19.00	$619.00
ONL LCT	**WR-121Z-12CO**	**354946**						
	M. WARREN				$544.00	$56.00	$19.00	$619.00
	Corequisite: Take the following WR-199-12.							
ONL NCT	**WR-121Z-13**	**351448**						
	J. MCALPINE				$544.00	$56.00	$19.00	$619.00
ONL NCT	**WR-121Z-14**	**351449**						
	J. MCALPINE				$544.00	$56.00	$19.00	$619.00
HAR NCT	**WR-121Z-15**	**351450**	**TTH**	**1-2:50 PM**				
	J. BEREZHNOY				$544.00	$56.00	$19.00	$619.00
HAR HYB LCT	**WR-121Z-16**	**351453**	**M**	**6-7:50 PM**				
	S. NIZIOLEK				$544.00	$56.00	$19.00	$619.00
ONL	**WR-121Z-17**	**351454**						
	T. DODGE				$544.00	$56.00	$19.00	$619.00
ONL	**WR-121Z-18**	**351455**						
	T. DODGE				$544.00	$56.00	$19.00	$619.00
ONL	**WR-121Z-19**	**351456**						
	T. DODGE				$544.00	$56.00	$19.00	$619.00
ONL NCT	**WR-121Z-20**	**351457**						
	J. MCALPINE				$544.00	$56.00	$19.00	$619.00
ONL	**WR-121Z-21**	**351458**						
	A. DEFREESE				$544.00	$56.00	$19.00	$619.00
ONL NCT	**WR-121Z-22**	**354882**						
	TBA				$544.00	$56.00	$19.00	$619.00
WR-122Z	**COMPOSITION II, 4 CREDITS**							
	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.							
	Prerequisites: WR-121Z with a C or better							
OC	**WR-122Z-01**	**351459**	**MW**	**10-11:50 AM**				
	M. SCHUMACHER				$544.00	$56.00	$19.00	$619.00
OC	**WR-122Z-02**	**351461**	**MW**	**1-2:50 PM**				
	M. SCHUMACHER				$544.00	$56.00	$19.00	$619.00
OC	**WR-122Z-03**	**351463**	**TTH**	**1-2:50 PM**				
	C. BURNELL				$544.00	$56.00	$19.00	$619.00
OC HYB LCT	**WR-122Z-04**	**351466**	**M**	**1-2:50 PM**				
	R. MURPHY				$544.00	$56.00	$19.00	$619.00
OC	**WR-122Z-05**	**351467**	**TTH**	**10-11:50 AM**				
	C. BURNELL				$544.00	$56.00	$19.00	$619.00
OC HYB LCT	**WR-122Z-06**	**351468**	**T**	**3-4:50 PM**				
	S. WARREN				$544.00	$56.00	$19.00	$619.00
ONL LCT	**WR-122Z-07**	**351470**						
	R. MURPHY				$544.00	$56.00	$19.00	$619.00
ONL LCT	**WR-122Z-08**	**351471**						
	R. MURPHY				$544.00	$56.00	$19.00	$619.00
ONL NCT	**WR-122Z-09**	**351472**						
	L. ORMANDY				$544.00	$56.00	$19.00	$619.00
ONL	**WR-122Z-10**	**351474**						
	M. SCHUMACHER				$544.00	$56.00	$19.00	$619.00
ONL NCT	**WR-122Z-11**	**351475**						
	J. PETERMAN				$544.00	$56.00	$19.00	$619.00

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HAR HYB	**WR-122Z-15** H. DIERDORFF	**351476**	**M** $544.00	$56.00	**6-7:50 PM** $19.00	$619.00

WR-124ES ESCRITURA DE ENSAYOS DE NIVEL UNIVERSITARIO EN ESPAÑOL, 4 CREDITS

Este curso involucra a los estudiantes en el estudio y la práctica del pensamiento crítico, la lectura y la escritura. El curso se centra en el análisis y la composición en diversas situaciones retóricas y en múltiples géneros. Los estudiantes aplicarán conceptos retóricos clave de forma flexible y colaborativa en sus procesos de escritura e indagación.

Required: Estudiantes deben leer y escribir a nivel universitario, en Español, antes de comenzar el curso

Prerequisites: WRD-098ES o tener un nivel de evaluación de WR-124ES

Recommended Prerequisite or Corequisite: FYE-101ES

REM NCT ESPAÑOL	**WR-124ES-01** A. ENCINAS	**351477**	**T** $544.00	$56.00	**6-7:50 PM** $19.00	$619.00

WR-127 SCHOLARSHIP ESSAY WRITING, 1 CREDIT

Introduces scholarship application resources and search strategies to help students find scholarships that are 'right for me'. Focuses on learning to 'tell my story' by drafting, revising, and editing essays for scholarship applications.

ONL	**WR-127-01** TBA Meets: 2/8-3/20.	**351478**	$136.00	$14.00	$19.00	$169.00

WR-140 INTRODUCTION TO WRITING CREATIVELY, 4 CREDITS

Guides students through the discussion and practice of writing creatively in many genres and formats, primarily poetry, fiction, drama, and creative non-fiction in a workshop format. May also include screenwriting, digital story telling, film, and performance genres.

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

OC HYB NCT	**WR-140-01** S. NIZIOLEK	**354883**	**T** $544.00	$56.00	**1-2:50 PM** $19.00	$619.00

WR-199 EXPERIMENTAL COURSES: WRITING

Selected courses of study offered on an experimental or temporary basis. See section(s) for detailed information. Required: Student Petition.

COMPOSITION I SUPPORT, 1 CREDIT

OC	**WR-199-01** T. DONNELLY This course provides additional support in the skills and concepts needed to succeed in WR-121Z. Corequisite: Take the following WR-121Z-01CO.	**354947**	**MW** $0.00	$0.00	**11-11:50 AM** $0.00	$0.00

COMPOSITION I SUPPORT, 1 CREDIT

OC	**WR-199-03** A. WARREN This course provides additional support in the skills and concepts needed to succeed in WR-121Z. Corequisite: Take the following WR-121Z-03CO.	**354948**	**TTH** $0.00	$0.00	**3-3:50 PM** $0.00	$0.00

COMPOSITION I SUPPORT, 1 CREDIT

OC	**WR-199-06** J. DAVIS This course provides additional support in the skills and concepts needed to succeed in WR-121Z. Corequisite: Take the following WR-121Z-06CO.	**354949**	**TTH** $0.00	$0.00	**11-11:50 AM** $0.00	$0.00

COMPOSITION I SUPPORT, 1 CREDIT

REM	**WR-199-12** M. WARREN This course provides additional support in the skills and concepts needed to succeed in WR-121Z. Week 1 Zoom Orientation (must attend one): Tuesday, 1:00-1:50 pm OR Wednesday, 12:00-12:50 pm. 4 other required Remote/Zoom meetings during the term; days/times TBD. Corequisite: Take the following WR-121Z-12CO.	**354950**	**TBA** $0.00	$0.00	$0.00	$0.00

WR-227Z TECHNICAL WRITING, 4 CREDITS

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.

Prerequisites: WR-121Z with a C or better

OC NCT	**WR-227Z-01** S. WARREN	**351479**	**TTH** $544.00	$56.00	**10-11:50 AM** $19.00	$619.00
OC HYB NCT	**WR-227Z-02** J. BEREZHNOY	**351482**	**M** $544.00	$56.00	**3-4:50 PM** $19.00	$619.00
ONL NCT	**WR-227Z-03** J. MCALPINE	**351483**	$544.00	$56.00	$19.00	$619.00
ONL NCT	**WR-227Z-04** J. MCALPINE	**351485**	$544.00	$56.00	$19.00	$619.00
ONL NCT	**WR-227Z-05** R. DAVIS	**351486**	$544.00	$56.00	$19.00	$619.00
ONL NCT	**WR-227Z-06** R. DAVIS	**351487**	$544.00	$56.00	$19.00	$619.00
HAR HYB NCT	**WR-227Z-15** J. PETERMAN	**351490**	**M** $544.00	$56.00	**6-7:50 PM** $19.00	$619.00

WR-241 FICTION WRITING I, 4 CREDITS

Introduction to the theory, art and creative practice of fiction writing, with specific emphasis on short prose forms.

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

OC NCT	**WR-241-01** N. ROSEVEAR	**351492**	**MW** $544.00	$56.00	**3-4:50 PM** $19.00	$619.00

WR-242 POETRY WRITING I, 4 CREDITS

Provides the basic skills for writing and revising poems following contemporary trends in form and content; provides a supportive environment and the critical abilities to read and discuss poems confidently.

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

OC LCT	**WR-242-01** H. DIERDORFF	**351494**	**MW** $544.00	$56.00	**1-2:50 PM** $19.00	$619.00

WR-248 PUBLISHING LITERATURE: EDITING AND MARKETING FOR PUBLICATION, 4 CREDITS

For students with an interest in creative writing and/or literary journal publication who wish to develop publishing skills. Students work collaboratively to copyedit manuscripts for publication and create marketing materials for an award-winning literary journal featuring poetry and short fiction from local and international authors. May be repeated for up to 8 credits.

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

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OC LCT	WR-248-01	351497		TTH			10-11:50 AM	
	M. WARREN				$544.00	$56.00	$40.00	$640.00

WR-265 DIGITAL STORYTELLING, 4 CREDITS

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.

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

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	WR-265-01	351498		MW			10-11:50 AM	
	T. DODGE				$544.00	$56.00	$40.00	$640.00

WRD-090 INTRODUCTORY COLLEGE READING & WRITING 1, 4 CREDITS

Students discuss a variety of short, pre-college-level readings, and learn a process for developing their own paragraphs and very short essays (up to two pages). Other topics include becoming an independent reader, summarizing, and writing academically.

Prerequisites: Placement in WRD-090

Course No	Course Title, Credits	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Tuition	Fee	Time / Crs. Fee	Total
OC LCT	WRD-090-01	351499		MW			10-11:50 AM	
	W. DAWKINS				$544.00	$56.00	$19.00	$619.00
ONL LCT	WRD-090-02	351501						
	A. WARREN				$544.00	$56.00	$19.00	$619.00

WRD-098 INTRODUCTORY COLLEGE READING & WRITING 2, 4 CREDITS

Preparation for writing in college-level courses. Students discuss a variety of early-college-level readings, and develop and refine their own essays (up to three pages) through a process of revision and multiple drafts. Other topics include becoming a confident reader, finding and using information, and giving credit to sources through informal citations.

Prerequisites: WRD-090 or placement in WRD-098

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	WRD-098-01	351503		TTH			10-11:50 AM	
	J. DEALING				$544.00	$56.00	$19.00	$619.00
ONL NCT	WRD-098-02	351506						
	M. WARREN				$544.00	$56.00	$19.00	$619.00
HAR LCT	WRD-098-15	351515		MW			10-11:50 AM	
	J. PONS				$544.00	$56.00	$19.00	$619.00

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

Course No	Course Title, Credits	Section No / Instructor	Crs Reg.	Days (M,T,W,TH.F,S,SU)	Tuition	Fee	Time / Crs. Fee	Total
REM NCT ESPAÑOL	WRD-098ES-01	351517		W			6-7:50 PM	
	A. ENCINAS				$544.00	$56.00	$19.00	$619.00

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.

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 HYB	XWR-0001-01	351541		W			12-1:50 PM	
	P. LICHEN				$0.00	$0.00	$0.00	$0.00

Zoology

Z-202 GENERAL ZOOLOGY, 4 CREDITS

A lecture and lab course covering the maintenance of the cellular, tissue, and organ levels of invertebrates, evolution of animal systems and the diversity of the invertebrate animal phyla.

Prerequisites: MTH-095 with a C or better or placement in MTH-111Z
Corequisites: Z-202L
Recommended Prerequisites: WRD-098 or placement in WR-121Z

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	Z-202-01	351614		MW			10:30 -11:50 AM	
	M. PLUMMER				$544.00	$56.00	$55.00	$655.00

Z-202L GENERAL ZOOLOGY LAB, 0 CREDIT

Lab course for Z-202

Corequisites: Z-202

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	Z-202L-01	351615		W			1-3:50 PM	
	M. PLUMMER				$0.00	$0.00	$0.00	$0.00

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

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

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

ESPAÑOL: Enseñado en español
LCT: Low-Cost Text
NCT: No-Cost Text

COMMUNITY EDUCATION

Please register directly through the Community Education partner hosting the class you would like to attend.

Partner Spotlight: The Milwaukie Center

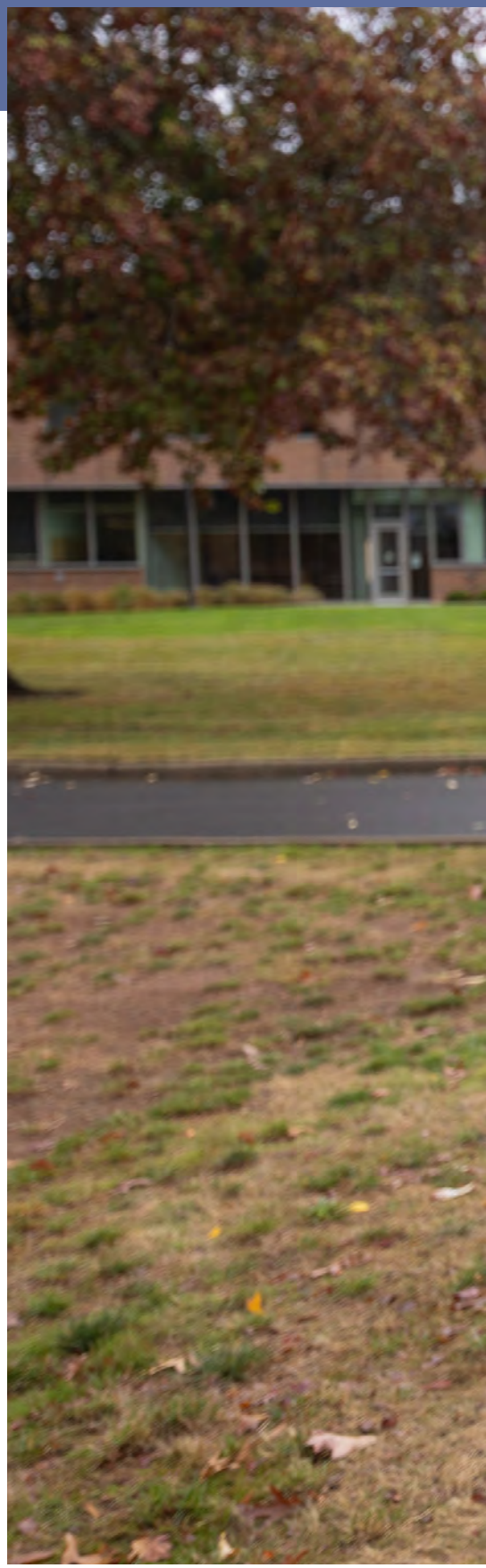
For more than 40 years, the Milwaukie Center has brought residents together through learning, creativity and wellness. As one of Clackamas Community College's longest-standing Community Education partners, the center offers opportunities to connect close to home.

Instructors lead 27 classes in a welcoming environment. Offerings include tai chi, watercolor, acrylic painting, line dancing, and strength and cardio fitness. Participants explore interests, develop skills and build friendships.

Some programs have continued for nearly two decades, helping participants establish healthy routines and connections. Beyond classes, the center serves affordable, hot lunches Monday through Friday. Impact NW provides accessible shuttle transportation three days a week, helping residents reach classes, meals and services.

Through this partnership, CCC brings education into Clackamas County communities, reducing barriers and supporting lifelong learning. Together, CCC Community Education and the Milwaukie Center help residents stay active, express their creativity and find a sense of belonging.

Explore classes at ncprd.org/milwaukie-community-center.



GLADSTONE

Gladstone Community School
503-650-2570
www.clackamas.edu/gladstone

CANBY

Bridging Cultures | 503-592-3781
www.bridgingculturescanby.org

WILSONVILLE

West Linn/Wilsonville Family Empowerment Center
503-673-7690
www.wlwv.k12.or.us/domain/3726

Wilsonville Parks and Recreation
503-783-PLAY
www.wilsonvilleparksandrec.com/parksrec

WEST LINN

West Linn Parks and Recreation
503-557-4700
westlinnoregon.gov/parksrec

MILWAUKIE

Milwaukie Community Center
503-794-8092 | *www.ncprd.com*

North Clackamas Parks and Recreation
503-794-8080, ext. 0 | *www.ncprd.com*

OREGON CITY

Oregon City Community Education
503-785-8520
ocsd62occe.org

Oregon City Swimming Pool
503-657-8273
www.orcity.org/904/Aquatics

Pioneer Community Center
503-657-8287
www.orcity.org/499/Pioneer-Community-Center

TEAM OREGON

Motorcycle/Scooter Safety Training
800-545-9944 | *team-oregon.org*