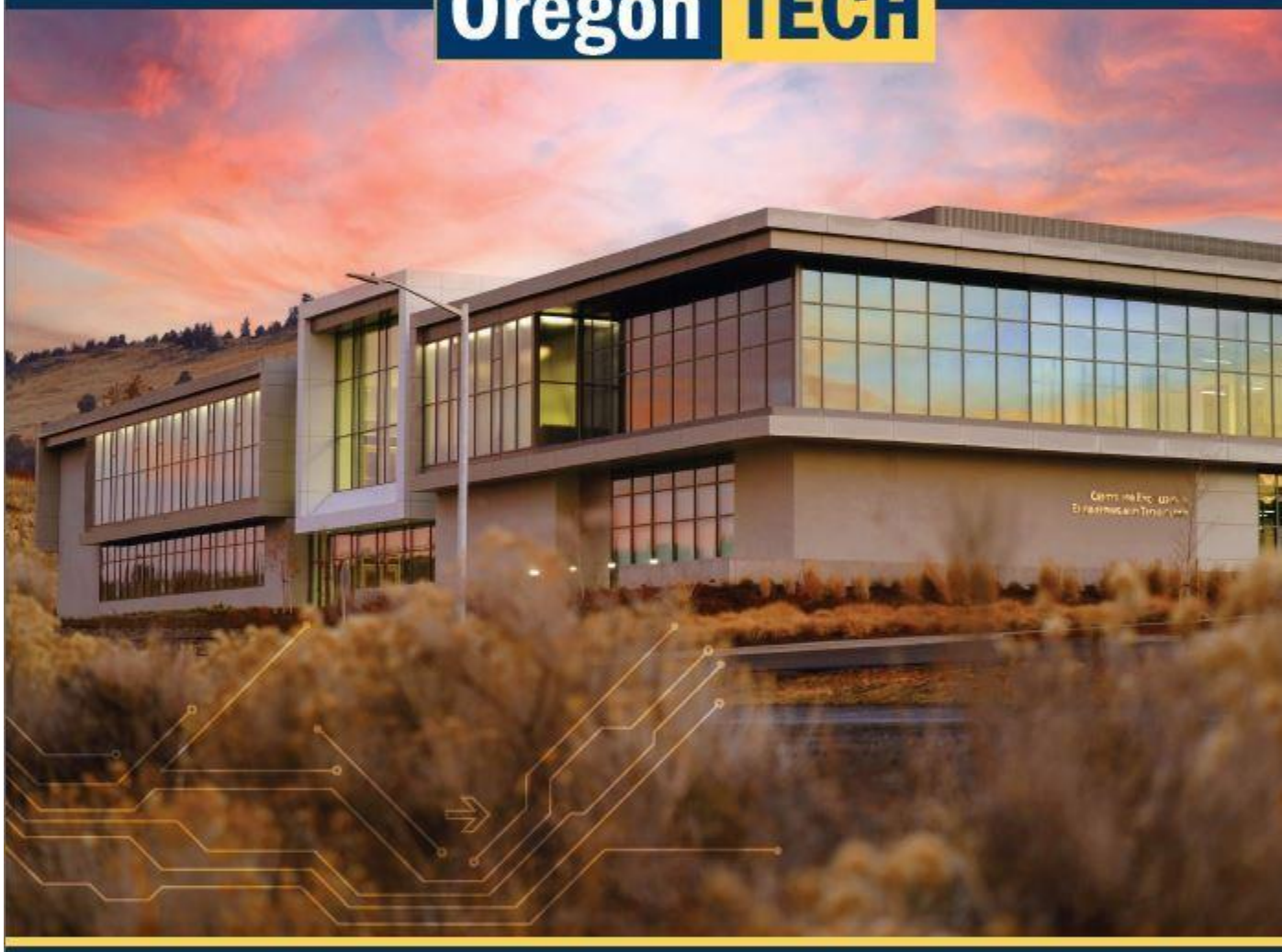
Oregon TECH



GENERAL CATALOG
2024 – 2025

Oregon's Polytechnic University

Oregon Institute of Technology

University Catalog
© 2024-25

www.oit.edu
(541) 885-1000
3201 Campus Drive, Klamath Falls, OR 97601-8801

Oregon's Polytechnic University

Welcome to Oregon Tech

General Information

Welcome new and returning students to Oregon Institute of Technology, or Oregon Tech! Below is information that will help you on your educational journey at our university. We're here to help, so please contact us with any questions you may have so we can make your time at Oregon Tech successful and enjoyable.

Admissions Office

The Oregon Tech Admissions Office is located on the first floor of the College Union on the Klamath Falls campus, and in the Student Services area at the Portland-Metro campus on the first floor. It is open weekdays from 8am to 5pm (9am to 5pm at Portland-Metro) to serve prospective students, applicants and their families, as well as high school guidance counselors, college-transfer advisors and teachers.

If you are interested in seeing the Klamath Falls campus, the Admissions Office visit coordinator can arrange for you to meet with a faculty member and an admissions counselor, tour residence halls and the rest of the campus, sit in on a class and/ or talk with one of our coaches. To set up a campus visit, call (800) 422-2017 or (541) 885-1150. Hearing-impaired persons may call the TTY number: (541) 885-1072. You also can request a campus visit at www.oit.edu or by emailing oit@oit.edu. If you wish to visit one of Oregon Tech's other campuses, such as the Portland-metro campus, the Admissions Office can provide you with a contact person who can make arrangements for you.

Non-Discrimination Policy

Oregon Tech does not discriminate on the basis of race, color, ethnicity, national origin, gender, disability, age, religion, marital status, sexual orientation or gender identity in its programs and activities. The following individuals are designated to handle inquiries and complaints regarding this non-discrimination policy: Civil Rights Officer, Title IX Coordinator (sex-based and gender-based discrimination) (541) 885-1108; email: oithr@oit.edu.

Students with Disabilities

Oregon Tech is committed to accommodating the academic and programmatic needs of qualified students with disabilities. Students with disabilities who anticipate needing accommodations should contact Disability Services, LRC 229C, as soon as possible in advance of enrollment, to ensure timely provision of services. Questions may be directed to: Disability Services, Oregon Tech, 3201 Campus Dr., Klamath Falls, OR 97601-8801. (541) 851-5227.

Alternate Format

This publication is available in an alternate format for persons with disabilities. Please contact Disability Services at (541) 851-5227.

Accreditation

Oregon Tech is accredited by the Northwest Commission on Colleges and Universities (NWCCU), 8060 165th Avenue, N.E., Suite 100, Redmond, WA 98052-3981. NWCCU is an institutional accrediting body recognized by the Council for Higher Education and/or the Secretary of the U.S. Department of Education. Accreditation, licensure or approval of individual programs are listed in departmental sections. Copies of accreditation documents are available in the Office of the Vice President for Academic Affairs/Provost, Oregon Tech, 3201 Campus Dr., Klamath Falls, OR 97601-8801.

General Catalog Production

The 2024-25 General Catalog was produced by the Registrar's Office. Information in this catalog was accurate at the time of publication, but is subject to change without notice and does not constitute a contract between Oregon Tech and the student or applicant. The general catalog is published annually and available on the web at www.oit.edu.

History at a Glance

1947 –	July 14, under the direction of first president, Winston Purvine, the first classes at Oregon Vocational School were held in a
1948 –	In a vote by the State Board of Education, the University's name was changed to Oregon Technical Institute – also known a
1950 –	KTEC radio went on the air, broadcasting from Oregon Tech's campus.
1953 –	Associate degree programs in Surveying and Structural Engineering Technologies were first accredited by the Engineers' C
1956 –	KOTI television opened and went operational on campus.
1957 –	Oregon Tech was made a separate division of the State Board of Education and an engineering study was begun to determin
1960 –	Oregon Tech was transferred to the jurisdiction of the State Board of Higher Education.
1962 –	Oregon Tech was accredited by the Northwest Association of Secondary and Higher Schools.
1964 –	Oregon Tech moved to its newly constructed campus on a geothermal site overlooking Upper Klamath Lake.
1966 –	Oregon Tech received authorization to grant bachelor's degrees.
1970 –	Bachelor's degree programs first accredited by ABET.
1973 –	OTI name changed to Oregon Institute of Technology or OIT; Oregon Tech continues in use as well.
1975 –	Geo-Heat Center established.
1976 –	Kenneth Light appointed second President of Oregon Tech upon Purvine's retirement.

1983 –	Larry Blake appointed third President of Oregon Tech. Metro Center established in Portland to offer in-demand degrees.
1984 –	Small Business Development Center established.
1988 –	Portland Metro Center moved to its first permanent facilities on Southeast Harmony Road in Clackamas.
1989 –	State Board of Higher Education authorized Oregon Tech to grant master's degrees.
1991 –	Lawrence J. Wolf appointed fourth President of Oregon Tech.
1995 –	First master's degree offered.
1997 –	First online degrees offered.
1998 –	Martha Anne Dow appointed fifth President of Oregon Tech.
2001 –	Oregon Renewable Energy Center (OREC) established in law by the Oregon legislature.
2005 –	Oregon Center for Health Professions established.
2008 –	Christopher G. Maples appointedsixth President of Oregon Tech. Martha Anne Dow Center for Health Professions opens.
2012 –	Oregon Tech's Portland-Metro presence expands with the opening of the Portland-Metro Campus in Wilsonville, and broad
2015 –	Oregon Institute of Technology became an independent public body governed by its own Board of Trustees.
2017 –	Nagi G. Naganathan appointed seventh President of Oregon Tech.
2017	Oregon Manufacturing Innovation Research and Development (OMIC R&D) established.
2017–	Soccer field renovation completed.
2018–	Behavior Improvement Group Applied Behavior Analysis (BIG ABA) clinic in Klamath Falls established.
2018–	Renovations of the softball field and stadium began. The John and Lois Stilwell Stadium completed in fall 2018.
2019-	Cornett Hall remodel completed.
2020-	Renovation of the athletics facility and Rec Center completed.
2021-	Oregon Tech Executive Think Tank established.
2021–	Renovation of Track and Field began.
2021–	Honorable Governor Kate Brown signed House Bill 2472A into law, granting Oregon Tech official designation as Oregon's
2021–	Oregon Tech Foundation surpasses $10 million in scholarships awarded since Foundation developed.
2022–	Construction of the Center for Excellence in Engineering and Technology (CEET) completed, and first classes were held in
2022–	Remodel of Boivin Hall began.

2022-	Oregon Tech launches 75th anniversary celebrations.
2022-	Oregon Tech offers in-state tuition for all Native American students.
2022-	The Boeing Company and Oregon Tech announce new Collaboration Lab in Klamath Falls.

Welcome

Welcome to Oregon Tech! You have chosen a university that will challenge you, excite you, and provide many opportunities for you to learn, innovate and grow in a unique polytechnic university environment. Oregon Tech graduates are known for their ability to excel immediately in their careers as well as in graduate and professional schools.

The small class size and hands-on, applied approach to education at Oregon Tech is perfectly tailored to an experiential learning environment that encourages communication, collaboration, and engaging in professional practice. Oregon Tech is focused on providing high value to students, and a high return on investment to our graduates, who excel across many industries and in-demand fields. Faculty members bring their real-world problem-solving experiences into the classroom, creating numerous opportunities for Oregon Tech students to gain professional experience outside the classroom through externships, internships, field work, cooperative programs, and capstone projects.

You have chosen rigor, quality, and relevance by attending Oregon Tech. You are now part of our focus on excellence, innovation, and professional preparation that has served Oregon Tech's graduates well and has continuously increased our reputation and rankings in Oregon, the Pacific Northwest, and nationally. Welcome to the Oregon Tech Family – we're glad you're here and we very much look forward to helping you achieve your own personal and professional success.

Mission Statement, Vision, Values, and Pillars

Mission Statement

Oregon Institute of Technology ("Oregon Tech"), Oregon's Polytechnic University, offers innovative, professionally-focused undergraduate and graduate degree programs in the areas of engineering, health, business, technology, and applied arts and sciences. To foster student and graduate success, the university provides a hands-on, project-based learning environment and emphasizes innovation, scholarship, and applied research. With a commitment to diversity and leadership development, Oregon Tech offers statewide educational opportunities and technical expertise to meet current and emerging needs of Oregonians as well as other national and international constituents.

Vision

Oregon Tech will be a student-centered, world-class polytechnic university that inspires students to become tomorrow's leaders.

Institutional Student Learning Outcomes

Institutional Learning Outcomes (ISLOs), also referred to as Oregon Tech's Essential Student Learning Outcomes (ESLOs), support Oregon Tech's institutional mission and are in alignment with the Northwest Commission on Colleges and Universities (NWCCU) standards.

The ESLOs reflect the common expectations about the general knowledge, skills, and abilities that all Oregon Tech graduates will acquire by graduation regardless of degree program. They define the Oregon Tech learning experience

that lay the foundation upon which each major program builds. The ESLOs may be achieved in many ways depending on the unique curriculum of each degree program, supporting graduates in developing habits of mind and behaviors of professionals and lifelong learners.

Oregon Tech Student Learning Outcomes:

Communication, Teamwork and Ethical Reasoning

Oregon Tech graduates will:

- communicate effectively orally and in writing
- collaborate effectively in teams or groups, working to accomplish group tasks and resolve conflict within groups and teams; and
- recognize decisions requiring ethical judgments, determine potential reasonable courses of action, and select the course of action best supported.

Diverse Perspectives

Oregon Tech graduates will demonstrate:

- an ability to identify and explain diverse perspectives which requires the self-awareness, intellectual flexibility, and broad knowledge that enables perception of the world through the eyes of others. This includes perspective of diverse cultures and personalities, with consideration of varied places, histories, and technologies.
- cultural sensitivity through the knowledge, awareness, and acceptance of other cultures, along with awareness of differences without promoting hierarchy within those differences
- global awareness through ability to view the world from a global perspective, competently and perceptively navigate the challenges and opportunities of a globalized world, demonstrate willingness to suspend own cultural biases to appreciate multiple global perspectives, and identify and appreciate the relevance of historical, demographic, social, cultural, political, economic, and/or environmental factors to a global issue(s).

Inquiry and Analysis

Oregon Tech graduates will demonstrate an ability to:

- analyze and explain how they process cognitively toward a goal when the problem solver does not initially know a solution method.
- maintain information literacy, identifying when information is needed and having the ability to locate, evaluate, and use the needed information ethically and effectively.
- identify and explain critical analysis of the problem/question/issue; recognize stakeholders and contexts; identify and evaluate assumptions; identify and evaluate evidence; formulate personal responses and/or acknowledge other perspectives, and identify and evaluate implications, conclusions, and consequences.
- analyze and explain logical thinking skills through logical extrapolation, reflecting an informed evaluation and ability to place substantial evidence and perspectives in priority order that lead to a conclusion or other outcome.
- appropriately extract, interpret, evaluate, construct, communicate, quantitative literacy and reasoning skills by applying quantitative information and methods to solve problems, evaluate claims, and apply and analyze quantitative data.
- analyze and explain inquiry and analysis skills which consists of posing meaningful questions about situations and systems, gathering and evaluating relevant evidence, and articulating how that the evidence justifies decisions and contributes to students' understanding of how the world works.

About Oregon Tech

For 75 years, Oregon Institute of Technology (Oregon Tech) has focused on changing students' lives by preparing them to meet the technology, innovation and management needs of industry. Oregon Tech is accredited by the Northwest Commission on Colleges and Universities, and individual programs are also accredited by the appropriate professional organizations. Today, Oregon Tech offers more than 44 bachelor's and master's degree programs in engineering, technology, health technologies, management, communication and the applied sciences. These include a growing number of bachelor's degrees and degree-completion programs offered online, and bachelor's and master's degree programs that can be entirely completed at Oregon Tech's Portland-Metro campus in Wilsonville.

With a mission to deliver professionally-focused education throughout the Pacific Northwest and to students from other parts of the country and world, we partner with industry leaders to ensure our programs adapt to ever-changing technologies and workforce demands. Year after year, our graduates garner the highest starting salaries in Oregon and among the highest in the nation.

Our applied approach to teaching, which blends theory and practice, is the main reason our graduates and alumni are so avidly recruited. Oregon Tech students have unique opportunities to apply what they learn in lab-based classes, clinics, externships and workplaces, as well as in clubs and special activities. Oregon Tech's faculty and staff, who come to Oregon Tech with relevant industry experience, reinforce this practical focus in the classroom. And in every program, a relevant interdisciplinary core underscores major studies, broadening students' understanding of the world and teaching them to communicate effectively, solve problems, and think for themselves. This student-focused approach to teaching and learning engages students in professional practice throughout their time at Oregon Tech.

One Oregon Tech, Three Primary Campuses, and Program-Specific Sites

Oregon Tech is one institution with multiple locations. Established in 1947, Oregon Tech offers bachelor's and master's degree programs throughout Oregon and beyond to meet the needs of students seeking a top quality, professionally-focused education.

Oregon Tech's residential campus is located in **Klamath Falls** in beautiful Southern Oregon, and is nestled on the eastern slope of the Cascade Mountains. The 190-acre campus offers spectacular views of Upper Klamath Lake, pine-studded knolls and snow-capped peaks from nearly every building. Klamath Falls, a city of about 22,000 residents (69,000 in Klamath County), is located about 20 miles north of the California border and in the same county that boasts Crater Lake National Park. Known as Oregon's "City of Sunshine," Klamath Falls enjoys about 300 days of blue skies each year.

Oregon Tech's **Portland-Metro** campus in Wilsonville, located just south of Portland, offers 21 bachelor's and master's degree programs in a state-of-the-art facility designed to provide an industry-focused, urban university experience in the heart of Oregon's "Silicon Forest". The campus offers high-demand degree programs, and is easily accessible to students of all ages and backgrounds, including business professionals, transfer students and new first-year students just out of high school. Oregon Tech provides excellent opportunities for students seeking internships and employment while completing their degrees.

Oregon Tech also offers a growing number of **Online** programs for working professionals or returning students who are busy and ready to advance their education as quickly and conveniently as possible. Oregon Tech Online allows students to finish certificates, associate, or bachelor's degrees without leaving home or the office, and without the hassles of travel, childcare or giving up their current job. The primary mission of Oregon Tech Online is to offer convenient programs and courses to both students seeking a degree, and those wishing to skill-up by taking just a course or two.

Oregon Tech also offers a bachelor's program in dental hygiene in **Salem** through a partnership with Chemeketa Community College. The classrooms and Dental Hygiene Clinic are located in Chemeketa's new, state-of-the-art Health & Sciences complex. Before acceptance, the program requires one year of prerequisite (pre-dental hygiene) coursework.

Oregon Tech **Seattle** offers a Bachelor of Science in Manufacturing Engineering Technology, Mechanical Engineering, or Mechanical Engineering Technology and a Master of Science in Manufacturing Engineering Technology to Boeing

employees at sites in the Puget Sound area. Also offered are review classes for the Society of Manufacturing Engineers' CMfgT and CMfgE exams and three certificate programs.

Oregon Tech is accredited by the Northwest Commission on Colleges and Universities. Additional accreditations, licensure and approvals of individual programs are listed in the appropriate program sections of this catalog. Copies of accreditation documents are available in the Office of the Vice President for Academic Affairs/Provost, Oregon Institute of Technology, 3201 Campus Dr., Klamath Falls, OR 97601-8801.

Oregon Tech Online is an approved institutional participant in the National Council for State Authorization Reciprocity Agreements (NC-SARA) initiative, which allows for increased access to online courses for many out-of -state students. Oregon Tech Online is authorized by the Washington Student Achievement Council and meets the requirements and minimum educational standards established for degree-granting institutions under the Degree-Granting Institutions Act. This authorization is subject to periodic review and authorizes Oregon Institute of Technology to offer field placement components for specific degree programs. The council may be contacted for a list of currently authorized programs. Authorization by the council does not carry with it an endorsement by the council of the institution or its programs. Any person desiring information about the requirements of the act or the applicability of those requirements to the institution may contact the council at P.O. Box 43430, Olympia, WA 98504-3430.

Programs by Campus

Klamath Falls

Doctorate of Physical Therapy

- Physical Therapy, DPT

Master of Science

- Applied Behavior Analysis
- Biomedical Sciences, MS
- Civil Engineering
- Marriage and Family Therapy
- Natural Resources, MS
- Renewable Energy Engineering

Master of Science/Bachelor of Science

- Electrical Engineering, BS/Renewable Energy Engineering, MS
- Electrical Engineering, BS/MSE
- Renewable Energy Engineering, BS/MS
- Renewable Energy Engineering, BS/MSE

Bachelor of Applied Science

- Technology and Management

Bachelor of Science

- Applied Mathematics
    - Applied Mathematics, option in Computational Mathematics, BS
    - Applied Mathematics, option in Physics, BS
    - Applied Mathematics, option in Statistics, BS
- Applied Psychology
- Biology-Health Sciences
    - Biology-Health Sciences, Biology Research Sciences option, BS
- Business, with options in:
    - Management
    - Marketing
- Civil Engineering
- Communication Studies
- Computer Engineering Technology
- Cybersecurity
- Data Science
- Dental Hygiene
- Diagnostic Medical Sonography
- Echocardiography
- Electrical Engineering, with emphasis in:
    - Electrical Power
    - Microelectronics
    - Renewable Energy
    - Robotics, Autonomous Systems, and Control Engineering
- Embedded Systems Engineering Technology
- Enviromental Sciences
    - Environmental Sciences, option in Environmental Chemistry, BS
    - Environmental Sciences, option in Environmental Business and Economics, BS
    - Environmental Sciences, option in Environmental Policy and Governance, BS
    - Environmental Sciences, option in Recreation and Science, BS
    - Environmental Sciences, option in Water and Wetland Resources, BS
    - Environmental Sciences, option in Wildlife, Fisheries, and Natural Resources, BS
- Geomatics, with options in:
    - Geographic Information Systems
    - Surveying
- Health Care Management, with options in:
    - Administration
    - Clinical
- Health Informatics
- Information Technology
- Manufacturing Engineering Technology
- Mechanical Engineering
- Mechanical Engineering Technology
- Nuclear Medicine and Molecular Imaging Technology
- Nursing (through OHSU School of Nursing)
- Operations Management
- Population Health Management
- Professional Writing
- Radiologic Science

- Renewable Energy Engineering
- Respiratory Care
- Software Engineering Technology
- Vascular Technology

Minors

- Arts, Literature, and Philosophy (ALPs)
- Applied Mathematics
- Applied Physics
- Applied Statistics
- Biology
- Business
- Chemistry
- Coaching
- Geographic Information Systems
- Health Informatics
- Human Interaction
- Information Technology
- Innovation & Entrepreneurship
- International Business
- Medical Sociology
- Professional Writing and Technical Communication
- Psychology
- Surveying
- Sustainability

Specializations

- Entrepreneur/Small Business
- Management
- Marketing

Certificates

- Applied Behavior Analysis (Graduate)
- Ethics, Certificate
- Dispute Resolution
- Integrated Behavioral Healthcare & Medical Family Therapy, Graduate Certificate
- Magnetic Resonance Imaging (MRI)
- Picture Archiving and Communication Systems (PACS)
- Power Systems Engineering, Graduate Certificate
- Systems Engineering, Graduate Certificate

Portland-Metro

Master of Science

- Applied Behavior Analysis
- Engineering - Specialties
    - Electrical Engineering
    - Embedded Engineering
    - Optical Engineering
    - Power Engineering
    - Robotics, Autonomous Systems and Control Engineering
    - Systems Engineering
- Renewable Energy Engineering

Master of Science/Bachelor of Science

- Electrical Engineering, BS/Renewable Energy Engineering, MS
- Renewable Energy Engineering

Bachelor of Applied Science

- Technology and Management

Bachelor of Science

- Business, Management option
- Cybersecurity
- Electrical Engineering, with emphasis in:
    - Electrical Power
    - Microelectronics
    - Optical Engineering
    - Renewable Energy
    - Robotics, Autonomous Systems, and Control Engineering
- Electronics Engineering Technology
- Embedded Systems Engineering Technology
- Emergency Medical Services Management (joint degree with OHSU)
- Health Informatics
- Health Care Management, Administration option
- Information Technology
- Manufacturing Engineering Technology
- Mechanical Engineering
- Mechanical Engineering Technology
- Medical Laboratory Science Department (joint degree with OHSU)
- Operations Management
- Renewable Energy Engineering
- Software Engineering Technology

Associate of Applied Science

- Emergency Medical Technology Paramedic

Minors

- Applied Mathematics
- Business
- Health Informatics
- Information Technology
- Psychology
- Surveying

Certificates

- Applied Behavior Analysis (Graduate)
- Power Systems Engineering, Graduate Certificate
- Systems Engineering, Graduate Certificate

Online

Master of Science

- Allied Health
- Applied Behavior Analysis
- Engineering - Specialties
    - Electrical Engineering
    - Embedded Engineering
    - Optical Engineering
    - Power Engineering
    - Robotics, Autonomous Systems and Control Engineering
    - Systems Engineering
- Marriage and Family Therapy
- Renewable Energy Engineering

Bachelor of Applied Science

- Technology and Management

Bachelor of Science

- Applied Psychology
- Business , with option in:
    - Management
- Dental Hygiene (degree completion)
- Diagnostic Medical Sonography (degree completion)
- Echocardiography (degree completion)
- Geomatics, with options in:
    - Geographic Information Systems
    - Surveying
- Health Care Management (degree completion), with options in:

    - Administration
    - Clinical
    - Radiologic Science
- Health Informatics
- Information Technology
- Medical Laboratroy Science, Degree Completion, BS
- Operations Management
- Radiologic Science (degree completion)
- Respiratory Care (degree completion)
- Vascular Technology (degree completion)

Associate of Applied Science

- Sleep Health, with options in:
    - Clinical Sleep Health
    - Polysomnographic Technology

Minors

- Business
- Health Informatics
- Information Technology
- Psychology

Certificates

- Applied Behavior Analysis, Graduate Certificate
- Business Management Essentials, Certificate
- Business Systems Management, Certificate
- Clinical Sleep Health, Certificate
- Cultural Competency, Certificate
- Dispute Resolution, Certificate
- Ethics, Certificate
- Geographic Information Systems, Certificate
- Health Communication, Certificate
- Magnetic Resonance Imaging (MRI), Certificate
- Management Information Systems, Certificate
- Picture Archiving and Communication Systems (PACS) Certificate
- Polysomnographic Technology Certificate
- Power Systems Engineering, Graduate Certificate
- Proposal & Grant Writing, Certificate
- Social Determinants of Health, Certificate
- Systems Engineering, Graduate Certificate
- Tech-Infused Global Leadership & Management, Certificate
- Technical & Medical Writing, Certificate
- UX Writing, Certificate

Seattle at Boeing

Master of Science

- Manufacturing Engineering Technology

Bachelor of Science

- Manufacturing Engineering Technology
- Mechanical Engineering
- Mechanical Engineering Technology

Chemeketa Community College

Bachelor of Science

- Dental Hygiene

Admissions and Financial Aid

Office of Admissions

Klamath Falls, College Union, 1st Floor
800-422-2017 (toll free)
(541) 885-1150
(541) 885-1024 (fax)
oit@oit.edu
www.oit.edu/admissions

The Oregon Tech Admissions Office is located on the first floor of the College Union on the Klamath Falls campus. Open weekdays from 8 am to 5 pm, its primary functions are to help prospective students investigate and evaluate Oregon Tech, to manage applications for admission and to assist applicants with the enrollment process. The Admissions Office operates with the cooperation and support of the entire campus community. Admissions welcomes visiting students and their families for daily tours, and sessions with admissions counselors, coaches, and other staff. Oregon Tech hosts several campus preview events and admitted students events annually. For event dates or to register for an event, please visit www.oit.edu/visit or call (541) 885-1150 or (800) 422-2017. For the hearing impaired please call the TTY number (541) 885-1072.

Admission requirements apply to all applicants of Oregon Tech. All students who wish to enroll in more than eight credits in a term, receive financial aid and/or graduate from Oregon Tech must apply and be accepted for admission. Applications for general admission are processed on the Klamath Falls campus regardless of the campus location for the student.

Application Deadlines

The priority application deadline for maximum scholarship and financial aid consideration each fall term is March 1. Oregon Tech accepts applications on a rolling basis, but students must have a complete application on file in Admissions three weeks prior to the first day of classes as follows:

2023-24	**Application Deadlines**
Fall Term	September 6, 2023
Winter Term	December 18, 2023
Spring Term	March 11, 2024
Summer Term	June 3, 2024
2024-2025	**Application Deadlines**
Fall Term	September 4, 2024
Winter Term	December 16, 2024
Spring Term	March 10, 2025
Summer Term	June 2, 2025

Applications

Applications for admission are available online at www.oit.edu/apply. A complete application consists of an application for admission, application fee, official transcripts, and other required documentation depending on the type of applicant (see Admission Eligibility Requirements).

Students who were previously enrolled but have stopped out more than four terms must submit an application for re-admission. Previously admitted students that did not enroll need to submit a new application.

Students who have not yet registered for classes who wish to change their entry term, major, or campus can do so by contacting the Admissions Office at oit@oit.edu or 541-885-1150.

Students who wish to take eight credits or less per term may submit a non-degree seeking student application. Alternatively, students may submit the appropriate first-year or transfer application and enroll part time. Please note, non-degree seeking students are ineligible for financial aid.

International students must complete an application for admission at www.oit.edu/apply. International students seeking enrollment through an approved exchange program must complete the International Exchange Application. For more information about Oregon Tech's international exchange program please go to www.oit.edu/international.

The following majors require a secondary application process after students are granted general admission to Oregon Tech.

- Medical Laboratory Science (OHSU/Portland-Metro)
- Diagnostic Medical Sonography
- Dental Hygiene (Klamath Falls, Salem)
- Echocardiography
- Nuclear Medicine and Molecular Imaging Technology
- Nursing (with OHSU/Klamath Falls)
- Paramedic/EMT (OHSU/Portland-Metro)
- Radiologic Science
- Respiratory Care

- Vascular Technology

Each program has its own application process, requirements, and deadlines. Details are outlined on the departmental pages of this catalog.

Application Procedures

Every applicant must complete the following steps to be considered for Admission to Oregon Tech:

All offers of admission are contingent upon submission of satisfactory final official transcripts prior to enrollment

1. Complete the appropriate application found at www.oit.edu/apply or, for first year freshman applicants only, at commonapp.org.
2. Pay the $50 non-refundable application fee. Some students may qualify for an application fee waiver. Please visit www.oit.edu/apply for more information.
3. First year applicants do not need to submit official high school transcripts when submitting application but will be required to provide an official high school transcript upon graduating from high school, and before enrolling at Oregon Tech. GED students will need to submit official GED test results.
4. Transfer students need to send official transcripts from all post-secondary instittutions attended or received credit from if applying as a transfer student. A final high school transcript is required unleass a student has a conferred degree, or has earned 60 semester credits or 72 quarter credits from a regionally-accredited college or university. High school transcripts will be used to evaluate a student for admission if the student has earned fewer than 24 semester credits of 36 quarter credits.

All official documents must be sent to the Oregon Tech Admissions Office and become property of Oregon Tech

Admission and registration may be cancelled if a student fails to submit required documentation in a complete and satisfactory order, or if a student, upon submitting final documentation, no longer meets admission requirements..

Some online degree completion programs have additional eligibility requirements. Please visit www.oit.edu/online/evf to determine your eligibility.

Some Oregon Tech programs do not have sufficient space to enroll all qualified applicants. Oregon Tech reserves the right to offer admission to the most qualified applicants on a first-come, first-served basis, or through a combination of these two strategies.

Not upon admission, but prior to registration, all students must have a complete health form showing adequate immunizations on file with the Student Health Center. For more information, please see the Student Health section of this catalog. Students enrolled in 6 credits or less per term are exempt.

Social Security Number Disclosure and Consent Statement

Students are requested to provide, **voluntarily**, a Social Security Number (SSN) to assist Oregon Tech in developing, validating, or administering predictive tests and assessments; administering student aid programs; improving instruction; internally identifying students; student parking; collecting student debts; or comparing student educational experiences with subsequent workforce experiences. By providing a Social Security Number, students consent to the uses identified above. This request is made pursuant to ORS 351.070 and 351.085. Provision of a Social Security Number and consent to its use is not required and, if a student chooses so, will not be denied any right, benefit or privilege provided. Applicants may enter a series of zeros (000-00-0000) on their admission application in place of their actual SSN. Students should be aware that by not providing their SSN they will not be eligible to receive federal student aid or some university scholarships.

Additionally, applicants should be aware that Oregon Tech is required to obtain a Social Security Number to file certain returns with the Internal Revenue Service (IRS) for the applicant to receive a 1098T and to furnish a statement. The returns that Oregon Tech must file contain information about qualified tuition and related expenses. Privacy Act

Notice: Section 6109 of the Internal Revenue Code requires students to give a correct SSN to persons who must file information returns with the IRS to report certain information. The IRS uses the SSN for identification purposes and to help verify the accuracy of tax returns. For more information, refer to IRS code 6050S.

Admission Requirements

First-Year Admission

Effective 2023-2024, Oregon Tech will admit first year applicants based on an unweighted College-Preparatory GPA with no requirement to submit standardized test scores such as the ACT, SAT, AP, or IB. The college-prep GPA will be recalculated based upon 14 courses. Students may be deficient in no more than two subjects, unless the two subjects are combined in Math and Lab Science. While there is no minimum ACT or SAT score, nor are score submissions required for admission review, scores may be used to meet subject deficiencies and for placement purposes at the time of enrollment. Deficiencies are subjects not taken or subjects in which a grade of D or F was earned. Repeat courses may be used to replace grades. Applicants older than 22 are exempt from the college-prep course requirements as well as students who have taken the GED. Merit-based scholarships awarded at the time of admission will use cumulative high school GPA.

For first-year admission, students must meet entrance requirements adopted by the State Board of Higher Education in Oregon. Applicants who are enrolled in or who have graduated from regionally accredited high schools must:

1. Report subjects and grades on the application. Unless requested to do so by the Admissions Office, please do not submit transcripts. An official, final high school transcript with the graduation date will be required before registering for classes.
2. Applicants must satisfactorily (grade of C- or above) complete at least 15 units (one year is equal to one unit) of college preparatory work in the following areas unless they graduated from high school prior to spring 1985. Applicants will be reviewed for admission on the following:

- English (4 units). Shall meet one of the following: four years of high school English (composition/literacy-based). Transferable three-credit or four-credit college English courses may be substituted, one for one, for one year of high school English .

- Mathematics (3 units). Shall meet one of the following: three years of high school math courses, including one year each of Algebra I, Geometry, and a third class that primarily focuses on concepts in algebra, calculus, data science, discrete mathematics, geometry, mathematical analysis, probability, or statistics. Prospective students are encouraged to take a fourth math course in their senior year of high school.Those intending to study a STEM (science, technology, engineering, or mathematics) major, or another field for which calculus is required, are strongly encouraged to take pre-calculus, and if possible, calculus, in high school.

- Social Science (2 units). Shall meet the following from: 2 years social science such as: Asian, African, European, Middle Eastern, United States history, world history, economics, sociology, geography, government, psychology, or anthropology. Transferable three-credit or four-credit college social science courses may be substitued, one for one, for one year of high school social science.

- Laboratory Science (3 units). Shall meet one of the following: three years of high school laboratory science (one year each of biology, chemistry, and earth science, or physics. An integrated science class may be substituted for one required course); Transferrable three-credit or four-credit college laboratory science courses may be substituted, one for one, for one year of high school science. An integrated science or advanced level science class may be substituted for one required course.

- Career and Technical Education or Fine Art (1 unit). One year or a two-semester combination of high school fine arts or Career and Technical Education (CTE) or one transferable three-credit or four-credit college fine arts course or CTE course.

- Academic Elective (1 unit). Shall meet one of the following: One year of high school courses such as computer science, STEM, engineering,second language, or other college prep-course that may fall within any of the above subjects.

3.Applicants who are applying based on GED scores must submit official GED test scores. A minimum overall score of 680 with scores of 170 or higher in each subject is required for admission. Special admission may be offered to those scoring no less than 150 on the Reasoning Through Language Arts and Social Studies test; no lower than 160 on the Science test; and no lower than 170 on the Mathematics Reasoning test. GED tests taken between 2002 and 2014 must have a minimum composite score of 500 with a minimum score of 410 in each subject. Tests taken prior to 2002 must have a minimum composite score of 50 with a minimum score of 41 in each subject. GED applicants can request official test scores from the Department of Education from the state in which the test was taken. Test scores must be sent to the Admissions Office.

Transfer Admission

A transfer student is one who has earned credits at another regionally accredited college or university after graduating from high school. A student must have earned at least 36 college-level credit hours (24 semester credits) to be admitted based solely on their college record. Students with fewer than 36 college-level credit hours (24 semester credits) will be reviewed on college and high school coursework.

1. Transfer applicants must have a cumulative 2.25 GPA or better in college level classes unless they hold an Oregon Transfer Module (OTM) or an associate or bachelor's degree, in which case, a cumulative GPA of 2.0 is required.

2. To be admitted to Oregon Tech, transfer applicants must demonstrate proficiency in English and Math by completing the equivalent of Math 95 (Intermediate Algebra) or higher and WRI 115 (Introduction to Writing) or higher with grades of "C-" or better. Special admission for students missing these courses will be granted at discretion of the Director of Admissions and/or the Admission's Committee.

3. Applicants who do not have an associate's or a bachelor's degree must have at least 36 college-level credits to be reviewed on college coursework alone. If more than 10 percent of an applicant's credits are in Physical Education, credits beyond the 10 percent threshold will not be counted toward meeting GPA requirements.

4. Applicants must be eligible to re-enroll in the previously attended institution(s).

Official transcripts from all post-secondary institutions must be submitted for consideration, as well as a high school transcript or GED for any students who do not have a conferred degree or who have not earned 60 semester credits or 72 quarter credits from a regionally accredited college or university..

Applicants who have earned fewer than 36 quarter or 24 semester hours of college-level work will be reviewed based on both high school and transfer GPA and subject requirements. Students who have completed fewer than 12 transferable quarter credits (8 semester) must meet freshman admission requirements. Students who have not completed 12 college credits must submit the first-year application for admission.

Acceptance of vocational/technical courses may be granted after registration if the student's administering department finds that vocational/technical courses have satisfied certain bachelor's degree requirements. In all cases, course and/or department prerequisites will be enforced.

The transferability of credits earned at Oregon Tech is at the discretion of the receiving college, university, or other educational institution. Students considering transferring to any institution should not assume that credits earned at Oregon Tech will be accepted by the receiving institution. Similarly, the ability of a degree, certificate, diploma, or

other academic credential earned at Oregon Tech to satisfy an admission requirement of another institution is at the discretion of the receiving institution. Accreditation does not guarantee credentials or credits earned at Oregon Tech will be accepted by or transferred to another institution. To minimize the risk of having to repeat coursework, students should contact the receiving institution for evaluation and determination of transferability of credits and/or acceptability of degrees, diplomas, or certificates earned.

Transfer Articulation Agreements

Oregon Tech is dedicated to enhancing partnerships with regional community colleges. One important way of doing this is by forming articulation agreements. An articulation agreement is an officially approved agreement that matches coursework between schools. These agreements are designed to help students make a seamless transition when transferring to Oregon Tech. Articulation agreements give students a clear understanding of what courses will transfer to Oregon Tech and satisfy requirements for their major while minimizing overlap or repeat of courses. Some agreements accept an associate degree in its entirety while other agreements outline specific courses to take as a student plans for transfer. Students should inform the Admissions Office and their academic department advisor when they are utilizing an articulation agreement.

A list of articulation agreements can be found online at www.oit.edu/articulations; students may search by Oregon Tech major or by transfer institution. Questions regarding these agreements may be directed to the students' academic department or the Office of Academic Agreements.

Non-Degree Seeking Students

A non-degree seeking student may not enroll in more than eight credits per term at Oregon Tech at the graduate or undergraduate level, must not have been previously enrolled as a degree seeking student, and is not eligible for financial aid. Out-of-state residents are subject to non-resident tuition and fees if enrolling in more than 6 credits. A tuition and fee schedule can be viewed online at www.oit.edu/college-costs/tuition-fees. College-level classes taken as a non-degree seeking student may be used toward Oregon Tech graduation requirements upon completion of the admission process as a degree-seeking undergraduate or graduate student. Credits may be transferred to other institutions at the discretion of the receiving institution. Enrollment as a non-degree seeking student does not guarantee future admission to Oregon Tech. To enroll at Oregon Tech as a non-degree seeking student, submit the Non-Degree Seeking Application (www.oit.edu/apply) at least one week prior to enrollment. Oregon Tech reserves the right to deny enrollment to those who seek non-degree seeking status.

Admission to Programs with Clinical or Practicum Requirements

It is important that prospective students understand that admission to those programs that have clinical or practicum requirements:

1. Is selective.
2. Will be granted after consideration of an applicant's ability to assume professional responsibility for clients, patients or students served by the program; and may be denied to any student with a record of past criminal behavior or psychiatric illness, which bears upon the student's ability to fulfill clinical or practicum responsibilities.

Students seeking admission to online degree completion programs in Vascular Technology, Echocardiography, Diagnostic Medical Sonography, or Respiratory Care, must meet all regular admission requirements and be registered professionals working in their chosen field. This will ensure access to clinical sites as required in these programs. For more information, contact the Online Education Office.

International Student Admission

Oregon Tech welcomes international students as applicants and as vital members of our campus community. In addition to the application and $50 application fee, the following documents must be sent to the Admissions Office:

1. Official transcripts of all high school and post-high school institutions attended.
2. An official credential evaluation from an Oregon Tech-approved credential service for all coursework completed at a post-secondary institution outside the United States. Examples include the Educational Credential Evaluators, Inc. (www.ece.org) and World Education Services (www.wes.org). A comprehensive list of approved evaluation agencies can be found at https://www.oit.edu/admissions/international-students/transcripts.
3. Official English proficiency test scores from one listed:
    1. Test of English as a Foreign Language (TOEFL) with a minimum internet-based score of 68 if taking the internet-based exam (520 if paper-based test, or 190 if computer-based test)
    2. English Language Testing System exam (IELTS) with a minimum score of 6
    3. Duolingo English Test (www.englishtest.duolingo.com) with a minimum score of 95.
    4. Students may be excused from taking an English language proficiency exam if they have completed a level 112 course at an ESL Language Center, received a B or better in Writing 121 from a regionally accredited US college or university, or are from a country on Oregon Tech's list of exceptions. Please see the list of exceptions at https://www.oit.edu/admissions/international-students/english-language-proficiency.
4. A completed *Statement of Financial Responsibility* form, indicating the necessary financial resources in U.S. dollars to support yourself while enrolled. This form can be found at www.oit.edu/admissions/international-students/i20
5. A letter, if appropriate, from parents and/or sponsors indicating the amount of financial support they will provide in U.S. dollars.
6. Documentation showing that you, your parents and/or your sponsors have adequate financial resources to meet your expenses while enrolled at Oregon Tech. Examples include official bank statements, tax forms and letters of employment showing annual earnings.

A completed health history and immunization form must be submitted after admission but prior to registration. In addition to the health requirements that need to be fulfilled before registration; international students must have at least one documented MMR vaccine on file at the Integrated Student Health Center prior to the student attending any classes (per OAR 333-050-0130). Also, students from countries identified as high risk for tuberculosis (most countries in Latin America and the Caribbean, Africa, Asia, Eastern Europe and Russia) are required to complete a TB screening upon entrance to Oregon Tech. This may include a TB skin test and/or a chest x-ray. This can be done at the Integrated Student Health Center if records are not available. Please refer to the Integrated Student Health Center section of this catalog for health history and immunization requirements and questions.

Exchange Student Admission

Oregon Tech welcomes exchange students through multiple exchange partnership agreements. Students at partner institutions work with an advisor at their "home" campus to meet the requirements of Oregon Tech's international exchange application process. It is recommended that exchange students begin the exchange application process at least nine months prior to the planned date of entry. This allows ample time for submission of documents that the U.S. Bureau of Citizenship and Immigration Services requires Oregon Tech to collect before we can issue the I-20 form used to secure a F-1 visa.

Admission Exceptions

The Admissions Committee and Director of Admissions retain the right to make exceptions to the specified requirements for admission or add stipulations to certain offers of admission. For additional information, contact the Director of Admissions.

Important Admissions Information for Military Connected Students

Per federal regulations Schools may not provide any commission, bonus, or other incentive payment based directly or indirectly upon success in securing enrollments or the award of financial aid to any individual or entity engaged in any recruiting or admission activities or in making decisions about awarding FSA program funds. The Admissions Department follows a policy that bans employees from receiving any incentives for recruiting or securing enrollment of any service members or any other student group.

The Admissions Department also refrains from any high-pressure recruitment tactics by any means (phone, email etc.) for securing enrollments of Veterans or any other student group. If a student receives emails or phone calls from us, they have the option to opt out of communications from us.

Before enrollment at Oregon Tech there are a few steps military connected students must take:

- Review the VA website and determine which educational benefits (programs/chapter) you are eligible for.
- Get admitted to Oregon Tech
- Receive approval from your ESO.
- Complete VA application
- Submit a Certificate of Eligibility (sent via mail VA application has been processed) to the campus-specific School Certifying Official.
- Once registered for classes, complete the Course Certification form

Per federal regulations a school must promptly readmit a service member with the same academic status as he had when last attended the school or was accepted for admission to the school. This requirement applies to any student who leaves school due to military service such as deployment, active duty etc.

Bring Your Own Device

Both the Klamath Falls and Portland-Metro campuses are now designated as Bring Your Own Device (BYOD) campuses. This allows students the flexibility to use Oregon Tech licensed applications on their own laptops rather than from stationary computers in computer labs. Investments have been made in remote technologies to give students the freedom to work with Oregon Tech applications from their own computer in class, outside of the class, on-campus or off-campus.

Registration

Registration events for new students occur prior to the start of each fall term. All students new to both the Klamath Falls and Portland Metro campuses must participate in a New Wings Registration event. Students will have the opportunity to meet with an advisor to plan their academic schedule, register for classes, set up Oregon Tech computer and email accounts, receive their university ID card and learn how to make a successful transition to Oregon Tech. Students are encouraged to attend an early registration event rather than waiting to register at the beginning of a term. Visit www.oit.edu/newwings or contact the Admissions Office at (541) 885-1150 or oit@oit.edu for more information. New students for winter, spring, and summer terms will be contacted by their advisor to schedule an advising and registration appointment prior to the start of term.

Placement Testing

Oregon Tech's Student Success Center (SSC) administers all placement testing. Student admission records are examined to determine placement requirements. Transfer students transferring in math credit for calculus or beyond, or who have transferrable college-level math within one year of matriculation, are exempt from the math placement requirement. Students entering a health program requiring Human Anatomy and Physiology with transferable college credit for this course are exempt from the entry assessment for the Human Anatomy and Physiology course sequence. Placement tests are available prior to the term of entry and in conjunction with new student registration. Visit www.oit.edu/newwings or contact (541) 885-1791 or testing@oit.edu for more information.

Western Undergraduate Exchange

The Western Undergraduate Exchange Program (WUE) is a tuition reduction program sponsored by the Western Interstate Commission for Higher Education (WICHE). Students from WUE eligible states save students thousands of tuition dollars each year. Students that are accepted to WUE eligible majors pay just 150 percent of the in-state tuition rate. There is no application to receive WUE. Applicants from WUE eligible states who apply for eligible programs are automatically reviewed for WUE eligibility upon admission.

WUE Eligible States and Programs

Students who are residents of Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, South Dakota, Utah, Washington, Wyoming, the Federal States of Micronesia, the Republic of the Marshall Islands, the Republic of Palau, American Samoa, Guam and the Commonwealth of the Northern Mariana Islands are eligible for WUE tuition.

All majors in the College of Engineering, Technology and Management, and the College of Health, Arts and Sciences are eligible for WUE tuition apart from:

- Medical Laboratory Sciences (Pre-Medical Laboratory Science is eligible)
- Pre-Dental Hygiene and Dental Hygiene
- Pre-Medical Imaging Technology and Medical Imaging Technology (Diagnostic Medical Sonography, Echocardiography, Nuclear Medicine Technology, Radiologic Science, and Vascular Technology)
- Nursing after acceptance by Oregon Health & Sciences University (OHSU) (Pre-Nursing is eligible)
- Pre-Paramedic and Paramedic Education Program
- Oregon Tech Online Education Programs

First-year freshman WUE eligible students are eligible to receive Presidential Scholarships upon review of their application. Transfer WUE students are not eligible.

To maintain WUE eligibility, students must be seeking their first bachelor's degree and remain enrolled full-time throughout Fall, Winter, and Spring terms of the academic year. Summer term is not required to keep eligibility. Students must be enrolled in at least 12 credits per term and maintain satisfactory academic standing. If dually enrolled with Oregon Tech and a community college, 9 of the 12-credit minimum must be from Oregon Tech. GPA and completed credits are monitored each academic year for continued scholarship and WUE eligiblity.

If a student wishes to 'stop-out' a term, a written request must be submitted to the Office of the Registrar before the start of the term. Requests are granted at the discretion of the university.

Financial Aid Programs and Application Process

College Union, 1st Floor
Klamath Falls
(541) 885-1280
dollars@oit.edu
www.oit.edu/faid

The Financial Aid Office is committed to providing high-quality service to all Oregon Tech students, and their families. Our office strives to provide information on a complex topic that enables students to make decisions regarding their educational funding.

The information contained in this catalog is general in nature and is not meant to serve as notification of students' rights and responsibilities as financial aid recipients. Oregon Tech's Financial Aid Award Guide serves that purpose. The

Award Guide is available on our website at www.oit.edu/faid. Additional questions regarding the FAFSA application process should be directed to the Financial Aid Office.

All students applying for federal financial aid must complete the *Free Application for Federal Student Aid* (FAFSA) available at studentaid.gov. A federally approved needs-analysis methodology is applied consistently to information provided by all applicants. The philosophy behind financial aid is that parents and students have the primary financial responsibility for funding the student's education.

If there are unusual financial circumstances that are not accurately reflected on the FAFSA, the student should contact the Financial Aid Office. Under certain conditions, professional judgment may be used and aid eligibility recalculated. The Financial Aid Office will always take the student's best interest into consideration while, at the same time, upholding federal regulations.

Veterans

Located in the Financial Aid Office in Klamath Falls, and the Student Services Office in Portland-Metro, the VA School Certifying Officials process enrollment certifications through the Veterans Affairs Regional Processing Center for students receiving education benefits. Oregon Tech complies with the Veterans Access, Choice, and Accountability Act of 2014 ("Choice Act") requirements for covered individuals and PL 115-251, section 301 and the Johnny Isakson and David P. Roe, M.D. Veterans Health Care and Benefits Improvement Act of 2020 (P.L.116-315). These benefits allow **eligible** out-of-state veterans to receive in-state tuition rates.

Any student receiving VA education benefits while attending Oregon Tech is required to obtain transcripts from all previously attended schools and submit them to the school for review of prior credit. This includes, but is not limited to: Joint Services Transcripts (JST), Community College of the Air Force, Air University, ACE-approved credits, DANTES, CLEP, CCAS, Service Members Opportunity Credit, etc. Refer to the Military Credit section of our catalog for more details. Good standing is an additional VA requirement. Any student that falls below satisfactory progress for more than one term will lose all veteran benefits until academic standing is improved to good standing. Please see Academic Suspension Policy.

In compliance with the Veterans Benefits and Transition Act of 2018, section 3679 of title 38, Oregon Tech has the following policies in place to support "covered individuals" utilizing VA benefits.

Note: A "**Covered Individual**" is any individual who is entitled to educational assistance under Chapter 31, Vocational Rehabilitation and Employment (now referred to as Veteran Readiness and Employment), or chapter 33, Post-9/11 GI Bill Benefits.

Oregon Institute of Technology permits any covered individual to attend or participate in the course of education during the period beginning on the date on which the individual provides to the educational institution a certificate of eligibility for entitlement to educational assistance under Chapter 31 or 33 (a "certificate of eligibility" can also include a "Statement of Benefits" obtained from the Department of Veterans Affairs' (VA) website –VA.gov, eBenefits, or a VAF 28-1905 form for Chapter 31 authorization purposes) and ending on the earlier of the following dates:

1. The date on which VA payment is made to the institution.

2. 90 days after the date the institution certified tuition and fees following the receipt of the certificate of eligibility.

Oregon Institute of Technology ensures that the university will not impose any penalty, including the assessment of late fees, the denial of access to classes, libraries, or other institutional facilities, or the requirement that a covered individual borrow additional funds, on any covered individual because of the individual's inability to meet his or her financial obligations to the institution due to the delayed disbursement funding from VA under Chapter 31 or 33.

Veterans and dependents receiving education benefits, and military members who submit appropriate documentation have priority registration in order to achieve timely program completion. Veterans and military members who are not receiving education benefits must submit a copy of one of the following pieces of documentation to receive priority registration:

US Armed Forces Active Duty Orders

DD214 under honorable or general conditions

For additional resources and information, please email veterans@oit.edu or visit https://www.oit.edu/college-costs/financial-aid/veterans

Application Procedures/Priority Deadlines

All students applying for federal and state aid must complete the *Free Application for Federal Student Aid* (FAFSA) and list Oregon Tech's school code (003211). We encourage you to file as soon as possible to be considered for your maximum eligibility. Some funds are very limited and are expended early.

Once the FAFSA information is received and reviewed by the Financial Aid Office, new students will receive a letter instructing them on how to log into "Tech Web" and their "Web for Student" to view their award notification and the federally mandated shopping sheet online. Students may accept their aid online and request changes. Returning students will receive an email to their Oregon Tech email account when their award notification is ready to view online. *After accepting aid students must log back in to web for student and answer the Title IV authorization questions (24 hours later).* The Financial Aid Award Guide is located on our website at www.oit.edu/faid. It is important that students read the guide and follow the instructions on the letter they are sent.

Any updates/changes to award notification letters will result in an email to the student's Oregon Tech email account. If additional information is requested, such as tax transcripts or worksheets, students should return the documents as soon as possible to receive a *Financial Aid notification letter* (email for returning students). The award notification letter will list all types of aid for which the student is eligible. The *Award Guide* is a detailed booklet explaining programs, disbursement procedures and student rights and responsibilities, as well as cost estimates and other miscellaneous information. It is the student's responsibility as a financial aid recipient to become familiar with the contents of the *Award Guide* and contact the Financial Aid Office if additional questions or concerns arise. Additionally, students should check their **Oregon Tech email accounts** for announcements and notifications from Financial Aid regularly.

The *FAFSA must be filed for each year* a student wishes to be considered for financial aid eligibility.

Types of Aid

All federal and state programs are need-based with the exception of the Unsubsidized Stafford Loan, Graduate PLUS Loan and the Parent Loan for Undergraduate Students (PLUS). Students receiving federal aid are allowed to receive at maximum, the cost of attendance as determined by the Financial Aid Office through all aid programs, including outside benefits such as third-party payments. Individual financial-aid packages will vary based on determined cost of attendance, expected family contributions and outside resources.

Federal Pell Grants

The estimated maximum annual Pell Grant for **2024-2025 is $7,395**. Students may receive Pell Grants for less than full-time, but the grant will be prorated accordingly. Pell Grant eligibility is limited to those students who have not yet obtained a bachelor's degree or reached the lifetime limit of 600%. All students will be considered for Pell Grant eligibility if they file a FAFSA. Awards are granted based on the federally calculated expected family contribution (EFC).

Oregon Opportunity Grant

The annual Oregon Opportunity Grant award for 2023-2024 was up to a maximum of $7,524. This grant program provides funding to Oregon residents in undergraduate programs attending Oregon schools. The Oregon Opportunity

Grant is awarded by the Office of Student Access and Completion. Students not enrolled full-time (at least 12 credits) **may be** eligible for a prorated part-time award if attending half-time. By filing a FAFSA, students are applying for this grant. Funds are available on a first come, first-served basis and are limited. A student can receive an Oregon Opportunity Grant for a maximum of 12 terms. More information is available at www.oregonstudentaid.gov.

Federal Supplemental Educational Opportunity Grants (SEOG)

SEOG funds are very limited at Oregon Tech, although priority for SEOG funds is given to zero EFC students. The typical award is $600 for an academic year. Only students who have not yet completed a bachelor's degree and are eligible to receive a Pell Grant will be considered for this grant.

Federal Work-Study Program

The Federal Work-Study Program allows students to earn money by working part-time on campus or at an off-campus community service site. Information regarding available jobs and application procedures are located in the Career Services Office and on the Oregon Tech website. Awards are usually $2,500 per year, which can be earned at any time during the academic year provided the student is enrolled at least half-time. Awards can be increased, if needed, and if money is remaining.

Direct Lending

Federal Stafford Loans (subsidized and unsubsidized) are available to most students through the federal government Direct Loan Program. Loan amounts vary based on student need and grade level in a declared major at Oregon Tech. A fee for guarantee and origination will be taken at the time of disbursement. Contact the Oregon Tech Financial Aid Office for current interest rates. The interest rates for 2023-2024 was 5.50%. The difference between a subsidized and an unsubsidized loan is that the federal government pays the interest on subsidized loans while the student is in school. Students who wish to borrow through the unsubsidized loan program should remember that interest is accruing on the loan. Interest payments can be made while in school and during the grace period, but are not required. The loans go into repayment 6 months after the student no loner attends school in at least 6 or more credits. Any interest that has accrued at the time of repayment will be capitalized. Students must complete entrance counseling and fill out a promissory note before funds will be disbursed. To complete these items go to www.studentaid.gov.

Matthews Loan, YATES Loan, and Oregon Tech Long Term Loan

The Matthews Loan, YATES Loan, and Oregon Tech Long Term Loan are loans offered by Oregon Institute of Technology. These institutional loans offer no origination fee, and repayment begins six months (Matthews Loan, and YATES Loan), and nine months (Oregon Tech Long Term Loan) after students cease to be enrolled at least half-time. The interest rates for the Matthew Loan and Oregon Tech Long Term Loan is 5% and the interest rate for YATES Loan is 4%.

Students must complete a promissory note to receive the funds.

Federal Parent Loans for Undergraduate Students (PLUS)

Parents of dependent students can apply for funds through Parent Loans for undergraduate students. These loans are available for up to the cost of attendance minus other financial aid and resources each year. Interest begins to accrue immediately. The interest rate for 2023-2024 was 8.05%. An origination and guarantee fee will be taken at the time of each disbursement. Loan repayment begins 60 days after the final disbursement of the academic year. If you're a parent PLUS borrower, you can defer repayment of Direct PLUS Loans while the student for whom you obtained the loan is enrolled at least half-time, and for an additional 6 months after the student graduates or drops below half-time

enrollment (half-time enrollment status is determined by your child's school). You must separately request each deferment period. This can now be set up in the application process.

Presidential Scholarships

First-time first-year applicants and transfers will receive consideration for Presidential Scholarships by applying and being accepted for admission by March 1 for the following fall term and meeting the minimum scholarship requirements. These scholarships are for full-time students and may be renewed for up to four years, so long as a student maintains a 3.0 GPA. Award levels vary depending on each recipient's academic record. For more information, go to www.oit.edu/scholarships.

Engineering Honors Scholarship

Students eligible for any of the four presidential scholarship awards and majoring in engineering are also eligible for the Engineering Honors Scholarship of $1,000 a year, renewable for four years. Students must maintain a 3.0 GPA to keep their scholarship. The Engineering Honors Scholarship is automatically awarded to any applicant majoring in engineering who will attend Oregon Tech starting fall term after graduation from high school, and who is able to meet the Presidential Scholarship criteria. Students must apply for admission, meet all admission requirements, and be accepted for admission by March 1 for enrollment fall term. Recipients must be new, full-time undergraduate students at Oregon Tech.

Klamath County Scholarship

The Klamath County Scholarship is automatically awarded to any applicant living in Klamath County who will attend Oregon Tech starting fall term after graduation from high school and who is able to meet the Presidential Scholarship criteria. Students must apply for admission, meet all admission requirements and be accepted for admission by March for enrollment fall term. Recipients must be new full-time undergraduate students at Oregon Tech. This scholarship is valued at $1,000 and is NOT renewable.

Oregon Tech Foundation Scholarships

More than 200 new and returning students annually receive funding from scholarships administered by the Oregon Tech Foundation. Alumni, businesses, industry, and friends of Oregon Tech generously fund these awards. To receive consideration, students must be currently enrolled at Oregon Tech, or accepted for admission for the following fall term. Application forms and deadlines are available on the Oregon Tech Web site at www.oit.edu/scholarships. The online scholarship application process is seamless for students and automatically generates a list of scholarships the student is eligible to apply for. The winter application process opens in early December and has a deadline of March 1. There is a smaller process in the summer. Please contact Financial Aid for more information.

Leadership and Diversity Scholarships (LAD)

Oregon Tech awards Leadership and Diversity (LAD) Scholarships each year to students who meet the application criteria. The applicant's background, identities, experiences and how they will make a difference and contribute to Oregon Tech being a place where all students feel a sense of belonging are some of the criteria considered when awarding this scholarship. LAD scholarship recipients are expected to attend events/workshops each term surrounding the topics of leadership development and/or cultural competency. Leadership and Diversity Scholarships are $2,000 per year for Oregon residents or those attending under the Western Undergraduate Exchange, and $3,000 per year for non-residents.

Applicants must be accepted for admission by the Oregon Tech priority deadline and apply through the Oregon Tech Foundation scholarship application by March 1st. For more information visit www.oit.edu/scholarships.

Owls Scholarship

Any incoming first-year student who achieves eight (8) or more college credits in a science, technology, engineering or math course, with a grade of B or better, may apply for the Oregon Tech OWLS program. Applicants must have just finished high school and are applying for fall term admission; transfer students are NOT eligible. Scholarship award is $1,500 when college credits have been completed at Oregon Tech, and $1,000 if completed elsewhere.

Students must be fully admitted and complete the scholarship application by March 1. For more information visit www.oit.edu/scholarships.

Estimated Financial-Aid Budgets for 2024-2025 Academic Year

Financial aid budgets can include amounts for tuition and fees, books and supplies, room and board, technology, and miscellaneous expenses. Please remember that these are **estimated average costs for students**, and student spending habits will vary. On a very limited, case-by-case basis, the Financial Aid Office may be able to adjust a student's budget as permitted by federal regulations.

Students with Disabilities

Under certain circumstances, a student's aid package may be adjusted to reflect additional expenses. Please contact the Financial Aid Office if you would like additional information or to schedule an appointment.

Consortium Agreement Information

In some cases Oregon Tech's Financial Aid Office will process a paper consortium agreement with another school in order to allow a student taking courses at another institution to receive aid from one school for all eligible classes. The school must be one with which Oregon Tech does not have a dual enrollment agreement. The institution that will be awarding the degree and awarding financial aid is defined as the "home institution"; the "host institution" is defined as the institution from which the student is taking additional courses. Consortiums must be submitted before the end of the second week of the term.

When Oregon Tech is serving as the "home institution," the following criteria must be met to have classes at a "host institution" apply toward financial aid:

1. The student must be fully admitted to one of Oregon Tech's degree-granting programs and eligible for financial aid.
2. The student must be enrolled at least half-time (6 credits) at Oregon Tech
3. The classes taken at the host institution must be 100-level or higher.
4. The classes at the host institution must apply toward the student's Oregon Tech degree.
5. The classes taken at the host institution must not be offered by Oregon Tech during the term of enrollment.
6. The paper consortium must be received within the first two weeks of the term.

It is the student's responsibility to ensure that both the "host" and the "home" institutions complete the appropriate consortium agreement. Consortium-agreement forms are available at www.oit.edu/college-costs/financial-aid/resources/forms. Students must provide Oregon Tech's Financial Aid Office with a final grade report from the "host institution" within 30 days of completing the course.

Dual Enrolled Students

Oregon Tech has formal dual enroll partnerships with multiple community colleges throughout the state. Please go online www.oit.edu/prospective-students/academic-agreements/dual-enrollment to view them.

Students who are dually enrolled may be able to combine credits at both schools for full-time enrollment. If Oregon Tech is the home school (giving aid) **the student must be enrolled in six credits at Oregon Tech**. Enrollment and grade information will be transmitted electronically. Credits at the host school need to be applicable to the Oregon Tech degree.

Air Force ROTC

Portland Metro partners with the University of Portland to offer Air Force Reserve Officer Training Corps (AFROTC) to educate and train young men and women to become Officers in the United States Air Force or Space Force. You can pursue the degree of your choice at Oregon Institute of Technology – Portland Metro while simultaneously taking classes at the University of Portland to fulfill your AFROTC requirement. In this program, students will grow mentally and physically while acquiring the leadership skills to be successful commissioned officers. AFROTC is a three or four-year program for full-time undergraduate students where members participate in Aerospace Studies courses, leadership laboratory, and physical training. In the first two years of AFROTC, students are enrolled in the General Military Course; where they learn about the Air and Space Force heritage, values, and build a foundation of leadership and team building. The summer between sophomore and junior year, students will attend a two-week training and evaluation known as Field Training. Upon completion of Field Training, cadets enter the Professional Officer Course; where they enhance their leadership and communication skills in addition to learning about their role as a military officer in the Armed Forces. AFROTC offers a variety of scholarships that vary from high school and in college programs. Visit https://www.afrotc.com/scholarships for more information on scholarships and a list of the Air Force's highly desired majors. For further information about the academic program and cadet life visit the University of Portland AFROTC site https://www.up.edu/afrotc or contact the Aerospace Studies Program, University of Portland, 5000 N. Willamette Blvd., Portland, Oregon 97203-5798. rotc695@up.edu and (503) 943-7216 or toll free (800) 227-4568, ext. 7216.

AS 101 - Heritage and Values (1) Fall

AS 102 - Heritage and Values (1) Spring

AS 111 - Leadership Laboratory (2) Fall

AS 112 - Leadership Laboratory (2) Spring

AS 201 - Team and Leadership Fundamentals (1) Fall

AS 202 - Team and Leadership Fundamentals (1) Spring

AS 211 - Leadership Laboratory (2) Fall

AS 212 - Leadership Laboratory (2) Spring

AS 215 - Leadership Laboratory (2) Fall

AS 216 - Leadership Laboratory (2) Spring

AS 301 - Leading People and Effective Communication (3) Fall

AS 302 - Leading People and Effective Communication (3) Spring

AS 311 - Leadership Laboratory (2) Fall

AS 312 - Leadership Laboratory (2) Spring

AS 401 - National Security/Leadership Responsibilities/Commissioning Preparation (3) Fall

AS 402 - National Security/Leadership Responsibilities/Commissioning Preparation (3) Spring

AS 411 - Leadership Laboratory (2) Fall

AS 412 - Leadership Laboratory (2) Spring

AS 415 - Leadership Laboratory (2) Fall

AS 416 - Leadership Laboratory (2) Spring

Residency

In Oregon, as in all other states, tuition at publicly supported four-year universities is higher for non-resident students than for resident students.

The rules used in determining residency seek to ensure that only bona fide Oregon residents are assessed the resident fee. Please see www.oit.edu/registrar for the latest version of the residency policy.

Reciprocity Agreements

Students from some Northern California counties may be eligible to attend Oregon Tech under reciprocity agreements with College of the Siskiyous, College of the Redwoods, and Shasta College. Reciprocity can allow selected students to attend Oregon Tech at in-state tuition rates. Each participating college has certain restrictions, which may include the county of the student's residence, required enrollment for a period of time first at the community college, the student's major, and how many reciprocity permits the college issues. Please contact the California colleges for more information.

Tuition and Fees

Snell 116

(541) 885-1202

Fees and deposits at Oregon Tech are charged according to a uniform plan, varying on the nature of coursework offered. Oregon Tech reserves the right to make changes in fee schedules without notice.

Below is a partial list of the estimated fees paid by students regularly enrolled for undergraduate and graduate study.

For a list of on-campus fees (Building Fee, Incidental Fee, Health Service Fee, Student Recreation Center Fee, and International Insurance) that are dependent on the number of credits enrolled and are charged on a term-by-term basis, see the "Tuition and Fees by Program" PDF on the Oregon Tech website (https://www.oit.edu/college-costs/tuition-fees). Payment of full-time fees entitles students to use the library. Students may receive medical attention from the Student Health Center, use the fitness center (TechRec) and other student services. No reduction in fees is made for students who do not wish to access these services.

The estimated fee schedule for the 2023-24 academic years is provided for planning purposes only. Fees are subject to change. The current fee schedule is available from the Business Affairs Office or on the Oregon Tech website.

Special Fees

All special fees are subject to change without notice.

Application Fee (Non-refundable) - $50

Must be paid at the time of application submission for admission to Oregon Tech.

Differential Tuition - Medical Imaging, Respiratory Care & Dental Hygiene

Tuition is assessed as the base tuition rate plus 37 percent for students enrolled in Medical Imaging, Respiratory Care and Dental Hygiene programs.

Differential Tuition - Engineering and Technology

Tuition is assessed as the base tuition rate plus 37 percent for students enrolled in Engineering and Technology programs

Interest - Annual rate of 12%

The periodic rate of interest is one percent per month, or a fraction thereof, of the unpaid balance remaining on the account at the time statements are run (around the middle of each month - see the Cashier's Calendar at https://www.oit.edu/business-affairs/accounts-receivable/cashiers-office for exact statement dates).

Late Payment Fee - $99

Students paying fees after scheduled payment due dates for any term will be charged a late fee of $99.

Late Registration Fee - $20

A fee of $20 is charged to students registering for classes after the second week of each term.

Transcripts - $12/copy

Official transcripts are $12 per copy and charged by Parchment.

PDF Transcript - $16.75

A fee of $16.75 is charged by Parchment for each electronic PDF official transcript requested.

Malpractice Fee - $2

A malpractice fee of $2 is charged to all on-campus students who are in majors in the following departments: Medical Lab Sciences, Emergency Medical Services, Respiratory Care, Dental Hygiene, and Medical Imaging Technology. This fee covers malpractice insurance.

Matriculation Fee (Non-refundable) - Undergraduate $350; Graduate $165

A one-time fee assessed to all new on-campus Oregon Tech students. The Matriculation Fee covers student orientation, new student programming, testing services, and tutoring.

Matriculation Distance Education Fee (Non-refundable) - $50

A one-time fee assessed to all new Oregon Tech Distance Education students.

Online Tech Fee - $65

Fee of $65 charged for each fully online course, except for 0 credit online labs. This fee covers the cost of technology to deliver a course.

Parking Fees

All student, staff and faculty vehicles for the Klamath Falls campus must be registered with Parking Services and operated in compliance with *Regulations Governing Traffic Control*. At the time of vehicle registration, a parking fee will be assessed in accordance with a schedule approved by the President of the University and approved by the Oregon Tech Board of Trustees. Parking permits may be purchased online via TECHweb. Vehicles must be registered by the first day of classes. Parking Fees for 2023-24 are:

Students	Faculty/Staff	Permits - Additional Vehicles
$140.75/year	$223/year	$10 fee for additional vehicles for one-term and full-year permits
$71.40/term	$112/term	(This fee allows up to four vehicles per permit. Only one vehicle is allowed on campus at a time.)

Petition to Graduate Fee - $56

A fee of $56 is charged on the Oregon Tech student account after the student has submitted the Petition to Graduate form. Please contact the Registrar's Office with questions regarding this fee.

Returned Check or Electronic Payment Fee - $25

If payments to a student account are made by check or electronic payment and are returned because of any irregularity, the student becomes responsible for a $25 Returned Check or Electronic Payment Fee that will be charged on their

student account. A Late Payment Fee will also be added to the student account for unpaid balances resulting from a returned check or electronic payment.

Room and Board Costs

The 2024-25 estimated annual room-and-board costs range from $11,265 to $12,873depending on room type and meal plan purchased. Room-and-board charges are assessed by term. Fees are due in accordance with the same fee payment schedule as exists for tuition. Payments are due at the end of the second week of the term (unless a payment plan has been arranged with the Cashier's Office – please see details and due dates on the Oregon Tech Cashier's webpage).

Senior Citizen Instruction Fee

Senior citizens are persons aged 65 or older. Such persons are authorized to attend classes on a space-available basis. Charges for special materials (any extra class fees), if any, do apply. The senior-citizen privilege is extended to persons auditing classes only (not seeking credit or working toward a degree).

Per-credit hour: There is no charge for tuition and on-campus fees (Incidental, Health Service, Building, and Student Recreational Center Fees), therefore incidental fee privileges are not provided.

Service Charge - Payment Plan - $10

A $10 service charge per term is assessed on accounts using the payment plan. See the Student Financial Responsibility Agreement (found on the Cashier's webpage https://www.oit.edu/business-affairs/accounts-receivable/cashiers-office for more details on payment plan requirements.

Special Course Fees, per course

Special Course Fees, fees in addition to regular tuition, are assigned for some courses. These fees are noted in the *Schedule of Classes* for each term. These fees cover required consumable materials for the course that the institution purchases for students for more competitive pricing or because of better availability to the institution than to individuals.

Special Examination Fee, per credit - $50

Examination for credit.

Tuition and Fee Refunds

Students who withdraw from the university and who have complied with the regulations governing academic withdrawals may be entitled to certain refunds of tuition and fees assessed, depending on the time of withdrawal. The refund schedule has been established by the Oregon Tech Board of Trustees and is on file in the Business Office. Included with the refund schedule is the mandated order in which financial aid must be returned to the appropriate programs for students receiving financial aid. All refunds are subject to the following regulations:

- Tuition and Fee Refund Appeal forms must be submitted to the Business Affairs Office no later than 90 days after the last day of the term in which the course(s) was dropped.
- An official notice of withdrawal must be completed, and necessary clearance signatures filed with the Registrar's Office.

Refunds in all cases are calculated from the date of receipt of the application for refund or date of withdrawal, and not from the date when the student ceased attending classes, except in unusual cases when formal withdrawal has been delayed through cause beyond the student's control.

Library Fines and Charges

The following regulations govern library fines and charges:

1. **Overdue Fines**–Separate overdue fines apply to reserve items, equipment and materials borrowed from other libraries.
2. **Oregon Tech Lost Items**–Borrowers failing to return materials within 60 days of the due date for Oregon Tech Library's material will be charged the replacement cost of the items.
3. **For Alliance and ILL Lost Items**-Borrowers failing to return materials within 40 days of the due date for ILL and Alliance (Summit) materials will accrue separate charges. For Alliance (Summit) items the replacement charges are $75, plus a $15 service charge in addition to any overdue charges for each Alliance item not returned. For ILL lost items the replacement charges are established by the lending library in addition to any overdue charges for each ILL item not returned.
4. **Refunds**–When a lost item for which the borrower has been billed is returned before replacement has been ordered, a refund not exceeding the replacement cost may be made at the discretion of the library. In cases where replacement has been ordered, no refunds to the borrower will be made.

38 U.S.C. 3679(c). Veterans Access, Choice, and Accountability Act of 2014

A student is entitled to pay tuition and fees at Oregon Institute of Technology at the rates provided for Oregon residents without regard to the length of time the person has resided in this state if the student resides in this state while enrolled in the institution and the student:

1. Is receiving Chapter 30: Montgomery OR Chapter 33: Post-9/11 GI Bill® educational assistance; and
    - Enrolls within 3 years of discharge after serving 90 days or more on active duty; or
    - Anyone using transferred entitlement within 3 years of the transferor's discharge after serving 90 days or more on active duty; or
    - Surviving Spouses or Children under the Fry Scholarship who enroll within 3 years of an active duty Service member's death in the line of duty after serving 90 days or more; or
2. Students who remain continuously enrolled after initially meeting the requirements and are using Montgomery and Post-9/11 GI Bill® educational assistance.

GI Bill® is a registered trademark of the United States Department of Veterans Affairs (VA).

Academic Policies and Procedures

Procedures, Policies and Regulations

Student Rights and Responsibilities

Students are responsible for knowing and understanding Oregon Institute of Technology's requirements relating to registration, academic standards, student activities and student organizations as well as adhering to the Student Code of Conduct found on the website. Students are encouraged to meet regularly with their departmental advisors and to contact the Registrar's Office with questions about academic procedures, policies or regulations. More information can be found here.

Academic Advising

Students are assigned faculty advisors from their academic programs. Advisors maintain a file on students' progress and help them plan course loads. If a student should change programs, a new advisor will be assigned. Degree-seeking students are required to meet with their advisors prior to registration.

Student Classification

Students are classified according to the number of college-credit hours earned as follows: 0-44, freshman; 45-89, sophomore; 90-134 junior; 135 and above, senior. Transfer credits are included in determining classification.

Quarter System

Oregon Institute of Technology operates on an academic year consisting of three quarters (or terms) of approximately 11 weeks each (10 weeks of classes and 1 week of final examinations) and a summer session of eight weeks.

Student Records and Right to Privacy

In compliance with the federal Family Educational Rights and Privacy Act, state law and Oregon Tech policy, students have certain rights with respect to their education records. They are:

1. The right to inspect and review the student's education records within 45 days of the day the university receives a request for access. Students should submit written requests to the registrar, dean, head of the academic department, or other appropriate official, that identify the record(s) they wish to inspect. The university official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the university official to whom the request was submitted, that official shall advise the student of the correct official to whom a request should be addressed.
2. The right to request the amendment of the student's education record that the student believes is inaccurate or misleading. Students should write the university official responsible for the record; clearly identify the part of the record they want changed; and specify why the record is inaccurate or misleading. If the university decides not to amend the record as requested by the student, the university will notify the student of the decision and advise the student of their right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
3. The right to consent to disclosures of the personally identifiable information contained in the student's educational record, except to the extent that FERPA authorizes disclosure without consent. One exception that permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the university in an administrative, supervisory, academic or research, or support staff position (including health staff and members of the university's law enforcement department); a person or company with whom the university has contracted; a person or company acting as consultant or volunteer for the university; a person serving on the university's Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee. A university official has a legitimate educational interest if the official needs to review an educational record in order to fulfill their professional responsibility.
4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Oregon Institute of Technology to comply with the requirements of FERPA.

The name and address of the office that administers FERPA is:
Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-5920
1-800-USA-LEARN (1-800-872-5327)
Website: https://www.ed.gov/category/keyword/family-policy-compliance-office-fpco

The information provided here is for informational purposes only. For more FERPA resources please see the Office of Registrar FERPA webpage.

Oregon Tech Directory Information:

- Student's full legal name
- Current mailing address
- Current phone number
- Hometown
- Dates of attendance by term
- Degree program/major field of study
- Honor roll (President's & Dean's List)
- Date of graduation
- Full time, half-time, or less than half-time enrollment status
- Most recent/previous school attended
- Particpation in sports/activities
- Age, height, and weight or athletic team members

A student may request to have all of the above directory information kept confidential. To do so, please reach out to the Registrar'r Office at registrar@oit.edu.

Release of Student Information to Military Recruiters (Solomon Amendment)

Oregon Tech provides information about students that is requested by military recruiters under requirements of the Solomon Amendment (As of Oct. 23, 1998 [63 Fed. Reg. 56819] and the Interim Rule published Jan. 13, 2000 [65 Fed. Reg. 2056] by Department of Defense). Under this federal law, military recruiters may request the following information: Name, current mailing address (as provided by the student), current telephone number (as provided by the student), age, class level (e.g., freshman, sophomore, etc.), and academic major. The information may be requested for the immediately previous term, current term, or future term for all students age 17 and older who are or were registered at OIT for at least 1 credit in the requested term. Recruiters may request this information each term. Recruiters may not obtain any information that is not in the above list of student recruiting information. For example, they may not request any of the following: Social Security Number or ID Number, place of birth, race/ethnicity/nationality, grades and GPA, grades of low-performing students, religious affiliation, names of students with loans in default, veteran status, or names of students no longer enrolled at OIT. Institutions that do not comply with the Solomon Amendment risk losing federal funding from the departments of Defense, Education, Health and Human Services, Labor, and Transportation. Institutions do not risk losing student-aid funding such as Perkins Loans, Federal SEOG or Work-Study funds.

Use of Social Security Number (SSN)

You are requested to provide voluntarily your Social Security Number to assist OIT (and organizations conducting studies for or on behalf of OIT) in developing, validating, or administering predictive tests and assessments; administering student aid programs; improving instructions; internal identification of students and alumni; collection of student debts; or comparing student educational experiences with subsequent workforce experiences. When conducting studies, OIT will disclose your Social Security Number only in a manner that does not permit personal identification of you by individuals other than representatives of OIT (or the organization conducting the study for OIT) and only if the information is destroyed when no longer needed for the purposes for which the study was conducted. By providing your Social Security Number, you are consenting to the use identified above. This request is made pursuant to ORS 352.004, ORS 352.107, and ORS 352.146. Provision of your Social Security Number and consent to its use is not required and if you choose not to do so you will not be denied any right, benefit, or privilege provided by law. You may revoke your consent to the use of your Social Security Number at any time by contacting the Registrar's Office at registrar@oit.edu.

All access and use at Oregon Tech of the Social Security Number is prohibited except for meeting federal or state requirements, compliance, and reporting.

Policies

- Credit for Prior Learning
- Dead Week
- Final Examinations
- Graduation
- Academic Forgiveness
- Academic Grievance
- Academic Integrity

Academic Progress and Petitions Committee

Administration of the regulations governing academic performance is vested in the Academic Progress and Petitions (AP&P) Committee. This committee also has authority to assess probation or to suspend any student from the university when it appears that the student's work is at such a level that the student cannot benefit by continued attendance. The university requires that students make substantial progress toward meeting graduation requirements, including maintaining a minimum 2.0 GPA. Any cumulative GPA below 2.0 is considered unsatisfactory and will bring the student's record under review. Courses transferred in from other institutions are not included in institutional cumulative GPA.

The AP&P Committee also serves as an advisory group to the Registrar's Office regarding academic appeals. For information regarding appeals to this committee, students may contact the Registrar's Office. Committee decisions are final.

Admissions with Special Conditions

If a student is admitted with one or more stipulations and fails to meet any of the prescribed condition(s), that student may be referred to the AP&P Committee for possible academic disciplinary action, up to and including probation and suspension from the university. The request for review by AP&P can be made by any member of the Admission Committee.

Academic Warning

An academic warning is a caution to the student that there is a lack of satisfactory academic progress. Students, including first term freshmen, who do not achieve a 2.0 in any given term will receive an Academic Warning. Students who have no earned credits, withdrawals (i.e., all Fs, withdrawals (W) and/or incompletes (I)), for two consecutive terms will also receive an Academic Warning.

Academic Probation

Students who have attempted two or more terms at Oregon Tech and have an Oregon Tech cumulative GPA below 2.0 will be placed on Academic Probation. Students who have no earned credits, (i.e. all Fs, withdrawals (W) and/or incompletes (I)), for three or more consecutive terms will also be placed on Academic Probation. Students placed on probation will receive notification that they are on Academic Probation as well as instructions on how to proceed. Once placed on probation, students are advised to limit their course load to 13 credits. Courses transferred in from other institutions are not included in institutional cumulative GPA.

Academic Suspension

Students on academic probation for one term who do not meet the 2.0 cumulative GPA requirement in the successive term of enrollment will be placed on Academic Suspension for at least one term. To re-enroll, a student must complete the prescribed procedures and appeal to the Academic Progress and Petitions Committee for reinstatement. Students should contact the Registrar's Office for re-enrollment information. Students who have been suspended are denied all privileges of the institution.

Veteran students receiving benefits will lose all benefits until academic standing is improved to good standing.

NOTE: When a student is placed on academic warning, probation or suspension both the student and their advisor will be notified.

Academic Forgiveness

The Academic Forgiveness policy allows undergraduates with an unsatisfactory GPA to drop a maximum of three consecutive terms of work from consideration in their GPA. Academic forgiveness applies to terms only. Students are not allowed to select courses within terms for forgiveness.

Academic forgiveness is granted on a case-by-case basis by the Academic Progress and Petitions Committee. It is an extreme measure; it may be granted only once and only when a student provides clear and convincing evidence of a renewed commitment to advancing his or her education. Once forgiveness is granted, it may not be revoked. Forgiveness can be applied only to credits earned at Oregon Tech.

If the petition is approved, the student's transcript will have a notation stating, "Academic Forgiveness Granted" above each term in which forgiveness was granted. Forgiven courses and grades are no longer calculated in the GPA and do not apply toward graduation. However, a record of all coursework will remain on the transcript.

Eligibility

To apply for consideration for academic forgiveness a student must:

1. Have earned less than a 1.0 term GPA for the term(s) being considered for forgiveness. The term(s) for which forgiveness is being requested must have been taken at least seven years prior to the request
2. Have had at least a two-year lapse in enrollment at Oregon Tech
3. Be currently enrolled at Oregon Tech
4. Have completed a minimum of 30 graded credits at Oregon Tech with minimum cumulative GPA of 3.0 or better since resuming studies at Oregon Tech
5. Apply for forgiveness with the Academic Progress and Petitions Committee before degree completion

Procedure

To apply for academic forgiveness, a student must submit a formal letter of request to the University Registrar, which must include:

1. Specific term(s) (maximum of three consecutive) for which forgiveness is being requested
2. Statement of academic goals and a term-by-term plan for degree completion signed by the student's academic advisor
3. Rationale for the request

The University Registrar will forward the application to the Academic Progress and Petitions Committee for review and will notify the student of the Committee's decision.

Student Academic Grievance

Academic Disputes Covered by Policy

1. Student claims that final course grade resulted from unfair or prejudicial treatment by instructor or unusual or irregular procedures that impacted an individual student's grade in a disproportionate manner.

2. Student is dismissed from a professional program because of failure to meet prerequisite or sequential course requirements.

3. Student is dismissed from a professional externship component because of failure to meet standards of conduct or performance as required by the professional program and/or the externship site, as published in the Student Handbook for that program.

Academic and Related Disputes Not Covered by Policy

1. Grades assigned to tests, quizzes, homework, papers, projects, or other components of a course.

2. Final grades based on failure to meet published (via syllabus) standards for the course, in which no unusual or prejudicial treatment is claimed.

3. Disciplinary or other student conduct matters no specifically covered above.

4. Challenges to the instructor's grading system or components thereof, as long as the system was made available to students at the beginning of the academic term.

Procedure

1. Student reads policy to determine if the grievance can be appealed.

2. Student makes appointment to dispute with course instructor. Since reconciliation of the dispute at this level is in the best interests of all parties, instructors and students are urged to engage in an honest and open-minded effort to resolve the problem.

3. Failing to resolve the dispute with the instructor, the student makes an appointment with either the program director (if one exists) or department chair, as appropriate. a. The student and the instructor document the dispute in writing. b. The department chair should confer with the instructor, either before (preferred) or after consultation with the student. c. The department chair refers the matter back to the instructor for resolution or decides the dispute based on information that is available.

4. If disagreement with the department chair decision results, the student may request an appointment with the dean of the appropriate school (HAS or ETM). The student should indicate that the appointment concerns a grade dispute and the department, course, and instructor involved.

a. Students will not be seen by the dean unless the preceding steps have been followed. An exception to this is when the course instructor is the department chair. Then, the second level of appeal is the dean.

b. The dean contacts the department chair and, when appropriate, the course instructor to obtain information on the dispute.

c. After consultation with the department and the student, the dean offers the student the choice of a summary decision by the dean or the opportunity for a hearing by the Student Conduct Review Commission.

Seattle Site Students:

The Washington Student Achievement Council (WSAC) has authority to investigate student complaints against specific schools. WSAC may not be able to investigate every student complaint.
Visit https://www.wsac.wa.gov/student-complaints for information regarding the WSAC complaint process.

Summer Term

Anyone may enroll in summer term. Formal admission to the university is not necessary and there are no GPA or high school diploma requirements. High school students who want to take college courses are invited to attend. Potential students who have not met the college entrance requirements may take appropriate courses during the summer to correct these deficiencies. Students may register from early May through the first day of summer school. Tuition is on a per-credit basis.

The eight-week term begins in mid-June and ends in mid-August. Four-week sessions begin in mid-June and mid-July. Classes meet Monday through Thursday and are scheduled either during day or evening hours. Many summer classes are offered online via Oregon Tech Online.

A separate summer term class schedule is available on the web in April. This schedule provides a listing of courses, fees, registration and housing information.

Advanced Standing

Credit for Prior Learning

Credit for prior learning by a student admitted to Oregon Tech may be granted through a number of independent processes. These include:

A. Transfer Credit
B. Military Credit
C. College Level Examination Programs (CLEP) and Advanced Placement credit (AP)
D. Credit for National Registry or Licensure Exams
E. Credit by Examination and
F. Credit for Prior Experiential Learning

A number of these categories are for credit that is awarded for educational accomplishments attained outside of accredited post-secondary institutions.

These procedures describe the process used to grant the student appropriate academic credit by each of these methods as follows:

A. Transfer Credit

Oregon Tech makes every effort to give maximum consideration to the transfer work presented by enrolling students. To ensure that the student has the requisite knowledge, Oregon Tech follows these policies in determining credit:

Accreditation Status of Institution

The institution where the transfer credit was earned must be accredited by a regional accrediting body recognized by the Council for Higher Education (CHEA).

Students transferring work from an institution that is not regionally accredited by a CHEA-recognized accrediting body may receive transfer credit by:

1. demonstrating prior experiential learning with a portfolio
2. applying for credit after demonstrating competencies in advanced coursework in the same subject area or
3. challenging courses by exam

International Institutions

Students seeking transfer credit from international institutions must provide Oregon Tech with a credential evaluation from an Oregon Tech-approved credential evaluation service. Credential evaluation information may be obtained from the Office of Admissions. The credential evaluation must include course titles, credits and grades. Students must also provide course descriptions in English from the international institution. Any associated costs are the responsibility of the student.

Official Transcripts

Prior to the formal awarding of transfer credit, the transfer student must provide an official transcript of coursework completed at all other higher education institutions. Failure to list all colleges attended on the Application for Admission may result in denial of admission or transfer credit.

Admitted transfer students must submit official transcripts at least one term prior to enrollment to ensure timely evaluation of transfer credits.

Any student receiving GI Bill® education benefits while attending Oregon Tech is required to obtain transcripts from all previously attended schools and submit them to the school for review of prior credit.

GI Bill® is a registered trademark of the United States Department of Veterans Affairs (VA).

Determination of Transfer Credit

The Oregon Tech Registrar's Office determines the transfer equivalency of general education courses using articulation agreements, course descriptions, course outlines, and course syllabi. The student's major department determines the transfer equivalency for technical or major courses using similar resources.

Articulation Agreements

Oregon Institute of Technology is dedicated to enhancing partnerships with regional community colleges. One important way of doing this is by forming articulation agreements. An articulation agreement is an officially approved agreement that matches coursework between schools. These agreements are designed to help students make a seamless transition when transferring to Oregon Tech. Articulation agreements give students a clear understanding of what courses will transfer to Oregon Tech and satisfy requirements for their major with the least overlap or repeat of courses. Some agreements accept an associate degree in its entirety while other agreements outline specific courses to take as a student plans for transfer. Students should inform the Admissions Office, their academic department advisor, and Registrar's Office when they are utilizing an articulation agreement.

A list of articulation agreements can be found online at www.oit.edu/articulations; students may search by Oregon Tech major or by transfer institution. Questions regarding these agreements may be directed to the students' academic department or the Office of Academic Agreements.

Applicability of Transfer Credit

Oregon Tech provides a report upon the admission of the student, prior to the planned term of enrollment. The evaluation delineates the transfer credit on a course-by-course basis and specifies direct course equivalencies, courses which may be used towards general-education requirements, elective credits and courses which do not receive credit.

At the time of admission, Oregon Tech's report may include elective credits that do not apply towards a specific degree. These credits will be recorded as transfer credit for registration purposes, allowing the student an earlier registration appointment based on total earned credit hours.

Some transfer work, which may not be directly equivalent to Oregon Tech courses, may be appropriately substituted to meet Oregon Tech requirements. Students may seek course substitution approval by completing the Course Substitution form and obtaining the signature of the advisor, department chair and University Registrar.

The transferability of credits earned at Oregon Tech is at the discretion of the receiving college, university, or other educational institution. Students considering transferring to any institution should not assume that credits earned in any program of study at Oregon Tech will be accepted by the receiving institution. Similarly, the ability of a degree, certificate, diploma, or other academic credential earned at Oregon Tech to satisfy an admission requirement of another institution is at the discretion of the receiving institution. Accreditation does not guarantee credentials or credits earned at Oregon Tech will be accepted by or transferred to another institution. To minimize the risk of having to repeat coursework, students should contact the receiving institution in advance for evaluation and determination of transferability of credits and/or acceptability of degrees, diplomas, or certificates earned.

Credit for Alternative-Delivery Courses

Courses taken by alternative delivery from other accredited institutions will be evaluated as transfer credit.

Minimum Grade Standards

Oregon Tech considers for transfer those courses that carry a grade of D or better from an accredited institution. However, many Oregon Tech departments require C or better course grades for prerequisite and graduation purposes.

Pre-College Level Transfer Credit

Oregon Tech students who plan to enroll at other institutions during the summer or to complete coursework for the degree in absentia are encouraged to obtain written pre-approval of transfer credit to ensure transfer equivalency for degree purposes.

Pre-Approval of Transfer Credit

Oregon Tech students who plan to enroll at other institutions during the summer or to complete coursework for the degree in absentia are encouraged to obtain written pre-approval of transfer credit to ensure transfer equivalency for degree purposes.

B. Military Credit

Oregon Tech will grant credit for military courses and experiences based on American Council of Education (ACE) guidelines (found in the Guide to the Evaluation of Educational Experience in the Armed Forces) and faculty recommendations. Credit is awarded in accordance with transfer credit policies at Oregon Tech. Students may request evaluation of military credit by furnishing an official AARTS or SMART transcript.

C. College-Level Examination Programs and Advanced Placement: College Level Examination Program (CLEP)

Oregon Tech will award credit for several college-level examination programs. These examinations must be completed with a satisfactory score and an original copy of test results must be forwarded to the Registrar's Office from the testing service. In order to receive such credit, the student must be admitted to an Oregon Tech degree program and registered for classes during the term in which the request is made. Oregon Tech awards credit for College-Level Examination Program (CLEP) subject examinations, but not for CLEP general examinations. Information on CLEP course equivalencies and minimum scores may be obtained from the Oregon Tech Registrar's Office.

Advanced Placement (AP)

Students who complete college-level work in high school under the Advanced Placement (AP) program must achieve a minimum score of three to be granted credit on their Oregon Tech transcript. AP course equivalences may be obtained from the Office of Admissions or Registrar's Office.

A maximum of 25 percent of the credits used toward the degree may be CLEP and AP.

International Baccalaureate

Oregon Tech evaluates IB test scores much in the same way it evaluates AP scores. Students must have official test scores sent to the Office of Admissions. Oregon Tech may award credit to students who receive a 5 or higher on any Higher Level IB examination. For more information, please contact the Registrar's Office at (541) 885-1300.

D. Credit for National Registry or Licensure Exams

Oregon Tech will award a pre-approved block of credit to fully admitted and enrolled students who have passed a national registry or licensure exam in majors offered by the institution. This award of credit is based on the academic department's annual review of the national exam questions in comparison to the curriculum taught on campus. Full information is maintained in the Registrar's Office and via Oregon Tech Online, which coordinates online degree-completion programs offered by Oregon Tech.

Credit by Examination and Credit for Prior Experiential Learning

Oregon Tech awards credit for educational accomplishments attained outside of accredited post-secondary institutions.

E. Credit by Examination

Students currently enrolled at Oregon Tech may request credit for a course by special examination. This process is called a course challenge and the provisions are:

1. Credit by examination (course challenge) is available to students who are fully admitted in degree-granting programs
2. Students may not challenge a course which they have previously taken for credit and received a grade other than an audit, nor may they challenge the same course more than once. If students register for a course they wish to challenge, they must drop and challenge the course before the last day to drop without a "W"
3. No more than 25 percent of the credits submitted for graduation may be credit by examination
4. Examinations receive either a "P" (pass) or "F" (fail). A pass suggests the student has mastered the material comparable to a grade of "C" or better in the course being challenged. The University Registrar records "P" grades on the student transcript, but does not count the P in grade point average calculations. The University Registrar does not record "F" grades
5. Students must pay a non-refundable per-credit fee, as published by the Office of Business Affairs, prior to the examination
6. Departments are responsible for preparing an appropriate examination, evaluating the student's response and submitting results to the Registrar's Office. Departments reserve the right to declare any course offering as non-challengeable

Further procedures and general guidelines for course challenges may be obtained from the Registrar's Office.

F. Credit for Prior Experiential Learning

Oregon Institute of Technology recognizes that students learn outside the classroom through experiences on the job, vocational education, professional development courses, workshops, and independent study. Oregon Tech may grant credit for experiential learning when it is judged that learning outcomes are equivalent to those of college-level courses in the Oregon Tech curriculum. This process is only appropriate for students who wish to demonstrate learning for more than one required course. Typically, credit for experiential learning will be a substitute for a series of major specific courses.

Level of Credit

Oregon Tech grants credit for prior experiential learning at the undergraduate level only. Credit will be awarded only for documented prior learning that has a balance, appropriate to the subject, between theory and practical application, and not just for prior experience. Credit should be appropriate to the academic context in which it is accepted.

Eligibility Requirements

The student must be fully admitted and enrolled at Oregon Tech. Credit will not be granted until the student has successfully completed the procedure outlined. Credit for prior experiential learning will not be granted if the student has already received credit for the same course. No more than 25 percent of the credits needed for a degree or certificate may be from credit for prior experiential learning. Credit may only be granted for courses offered by Oregon Tech and the university reserves the right to declare any course offering as inappropriate for prior experiential learning credit.

Awarding of Credit

Completion of the institution's review process does not guarantee a student will receive credit for prior experiential learning. If the student successfully demonstrates evidence of college-level learning, credit will be identified on the student's transcript as credit for prior learning. This credit will not be graded or counted in the student's grade point average. Students wishing to appeal the award of credit should appeal to the Provost, whose decision is final.

Tuition and Fees

Fees charged for portfolio assessment are based on the services performed. The application fee for a specified course is published by the Office of Business Affairs. This non-refundable fee must be paid prior to submitting the portfolio for assessment. Proof of payment must accompany the student's Credit for Prior Experiential Learning Application.

Transfer of Prior Experiential Learning Credit

Oregon Tech accepts credit for prior learning from other institutions, provided that the transfer institution awards such credit on the basis of standards similar to those outlined by the Northwest Association of Colleges and Universities (NWCCU).

Faculty Evaluator Qualifications

Credit is awarded based on the recommendation of teaching faculty who are qualified in the subject area and who are on regular appointment with the university on a continuing basis.

Procedure

Students seeking credit for prior experiential learning should first confer with their advisor to help assess if their experience and learning are appropriate for this process. If it is determined that experiential learning assessment is appropriate, the student should contact the University Registrar.

The University Registrar will determine whether the student has met the eligibility requirements outlined in this procedure. If so, the University Registrar and the Department Chair will sign the student's Credit for Prior Experiential Learning Application. The student must then complete a prior experiential learning documentation course. This course may be utilized for curricular requirements by the major department if appropriate.

Upon completion of the documentation course, the student will submit his/her Credit for Prior Experiential Learning Application and completed portfolio to the department chair. At the department chair's discretion a faculty member will review the portfolio and if necessary will interview the student. The final decision is recorded on the student's Credit for Prior Experiential Learning Application and will be forwarded to the University Registrar. The Credit for Prior Experiential Learning Application will be included in the student's permanent academic record. The portfolio will be retained in accordance with Oregon Tech's archive guidelines.

Grading System

Student academic achievement is evaluated and reported in accordance with a system of letter grades assigned at the end of each course. These grades become part of the student's transcript, a permanent academic record. A summary statement of a student's total academic record is expressed as a cumulative grade point average (GPA). The academic grievance procedure can be found here.

Grading Policy - Bachelor and Master

Oregon Tech uses a 4.0 grading scale to evaluate student performance. Upon completion of a course or upon termination of attendance in the course, a student's performance will be graded by the instructor and reported to the University Registrar as follows:

Letter Grade	**Meaning**
A	Exceptional
B	Superior
C	Average
D	Inferior
F	Failed
I	Incomplete
IP	In Progress
N	Audit
NP	No Pass: *Equated to a "D" or "F"*
P	Pass: Equated to a "C" or better
W	Withdrawn
Z	No Grade Assigned

For program specific grading, such as DPT, please refer to the program handbook.

Grade Point Average Example

A student's GPA is computed by assigning a numerical point value to each grade: "A," 4 points per credit; "B," 3 points per credit; "C," 2 points per credit; "D," 1 point per credit; "F," 0 points per credit. GPA at Oregon tech is truncated. GPA is the quotient obtained by dividing total grade points by total hours attempted. Grades of "I", "P", "NP", "W" and "N" are disregarded in calculating GPA; however, a "P" is equivalent to a "C" or better. For example:

Class #	Title	Credits	Grade	Point Value for Credits	Earned Grade
WRI 121Z	Composition I	3	B	3	9
ECO 201	Economics	3	C	2	6
MATH 111Z	Precalculus I: Functions	4	A	4	16
CHE 101	Elementary Chemistry	3	B	3	9
CHE 104	Elementary Chemistry Lab	1	B	3	3
HED 250	Contemporary Health Issues	2	A	4	8
PHED 190	Racquetball	1	B	3	3
Total					**54**

GPA = Sum of earned grade points = $\frac{54}{}$ = 3.1764 or 3.17; credits attempted: 17

Grade Change Policy

All grades except for 'I', 'IP' and 'Z' are considered final when filed by the instructor during grade processing each term. Thereafter, a grade change may be made only in the case of clerical, institutional, procedural or calculation error although a student's grade may be changed following a student's appeal through Academic Grievance Procedures.

No grade other than 'I' or 'IP', once reported, may be revised by re-testing, or by completing additional work. A student's grade cannot be changed by any person other than the instructor of record unless an exception is granted by the Department Chair, College Dean or Provost. Any grade change by the instructor of record must take place within one year subsequent to the term in which the grade was reported. Any grade change that is to be filed later than one year must be approved by the appropriate College Dean and the University Registrar.

Non-Standard Grading

Courses may be graded on the pass (P)/no pass (NP) basis at the discretion of the department and the University Registrar. Courses may include, but are not limited to seminars, externships, co-ops, independent study, certificate classes, and physical education.

Class Drop/Withdrawal

A student may drop/withdraw from a course through Friday of the seventh week of the term. Although teaching faculty may drop a student during the first two weeks of the term, according to the Faculty Initiated Withdrawal Policy, they are not required to do so. Students will be notified of instructor initiated drops in writing.

Faculty-Initiated Withdrawal

Teaching faculty can drop a student during the first two weeks of the term from a class if the student has not attended by the second regularly scheduled meeting of that class. The student will be notified of the withdrawal in writing by the Registrar's Office.

Student Initiated Drops/Withdrawals

1. During the first 10 days of the term, a student may drop one or more courses with no record. However, if a student withdraws from all courses, the student's transcript will note "Complete Withdrawal"
2. After the first 10 days of the term, a student who withdraws from one or more courses will receive a "W" for those courses. Students may withdraw from individual courses through Friday of the seventh week of the term
3. After Friday of the seventh week, students will receive a letter grade from the instructor
4. Complete withdrawals from the university may be processed through Friday of the week prior to final-exam week. Depending on the time of the term, a complete withdrawal will result in a notation of a "complete withdrawal" or "W's" on the student's transcript
5. Students requesting to withdraw from a course(s) after the published withdraw dates that have medical documentation supporting the withdraw should contact the **Dean of Student's Office**

NOTE: The deadlines for dropping/withdrawing from a course are listed in the Academic Calendar.

Incompletes

When the quality of a student's work is satisfactory, but some essential requirement of the course has not been completed for reasons acceptable to the instructor, a grade of Incomplete (I) may be assigned and additional time granted for completion. The instructor is responsible for submitting an "I" grade and completing the Request for Incomplete form and submitting it to the Registrar's Office.

An "I" grade must be removed by the end of the next term (summer session not included). An "I" may only be extended under the most extenuating circumstances and then only for one additional term. If an "I" is not removed within the allotted time, the "I" then reverts to the alternate grade assigned by the instructor on the incomplete form.

Incompletes received in the anticipated term of graduation must be finished and the grades recorded in the Registrar's Office within three weeks after the end of the final term. Otherwise, the diploma will be delayed until the term during which all degree requirements are met.

In Progress (IP) Grade

The "In Progress" grade is used for classes with coursework that continues past the end of the term in which the student is registered. Examples include externship, co-op, clinical and project classes. The "IP" grade may be retained over multiple terms. "IP" grades that are not changed during the allotted time revert to a grade of "F" for undergraduate and graduate courses.

"IP" grades given at the undergraduate level will be retained for a maximum of four terms. The "IP" grade for a specific graduate level course is maintained by the Registrar's Office for a maximum of five years. Each year the student should file a progress report with the Graduate Council signed by the student and the student advisor. After five years, the student can appeal to the Graduate Council to request a grade change beyond this five-year limit. The Graduate Council has the authority to approve or deny the student's petition.

No Grade Assigned (Z) Grade

The "No Grade Assigned" grade is a grade assigned by the Registrar's Office when no grade is reported by the instructor. A "Z" grade should be changed by the instructor as soon as possible. If a "Z" is not removed by the completion of the following term, the "Z" reverts to a grade of "F".

Oregon Common Course Numbers

The state of Oregon has identified a set of commonly transferred lower division courses across all public higher education institutions that are part of a common course numbering systerm. These courses have aligned course numbers, learing outcomes, credit hours, course titles and descriptions. The courses are identified in the catalog, the class schedule and on official transcripts with the letter 'Z' placed at the end of the course number. Courses with the common course Z identifier are guaranteed to transfer within public instititutions in Oregon.

Repeat Policy

The following restrictions apply for course-repeat situations:

1. Students may attempt the same course (for a "W" or a letter grade) a total of four times
2. Each withdrawal ("W") is considered an attempt. Withdrawals, however, are not included in GPA calculations
3. The new grade earned will replace the previous grade(s) when computing GPA. Only the first two earned grades will be excluded for GPA calculations. The last grade earned will be used on the application for degree
4. All grades and credits remain on the student's official transcript

NOTE: Students should consult with their financial aid counselor to determine financial eligibility for repeat courses.

Auditing Policy

A student has the option to enroll in a class for informational purposes only. This enrollment is classified as an audit and is regulated by the following procedures:

1. Audit classes are charged at regular tuition rates as printed in the class schedule
2. The only grade an audit class may be granted is "N" (audit). The "N" grade is disregarded in the GPA and is not valid toward graduation requirements
3. Class attendance shall be in accordance with the instructor's attendance policy for all students in the class
4. Instructors having audit students have no obligation to grade or record the audit student's work
5. An audit option may be requested during the registration period. Changes "to" or "from" the audit option may be requested no later than the 10th academic day of the term
6. Students auditing a course may, at a later term:
    a. Register for the same course for credit
    b. Challenge the course by examination

Excessive Course Load

Admitted students are allowed to register for 21 credit hours (including audits) during an academic term without special permission. Fifteen credits are the maximum for summer session. Students wishing to register for an overload must have a 3.0 cumulative GPA and receive special approval from the advisor and the University Registrar. Appeals may be considered for special circumstances. The class schedule will provide associated tuition costs each term.

Non-admitted students are restricted to eight credits per term, with the exception of summer where 15 credit hours are the maximum.

Dead Week Policy

Dead Week (the period of Monday morning prior to finals week until the Monday morning of finals week) is the last week of regularly scheduled activities for the term. As such, Dead Week includes routine activities (e.g., lectures, discussions, laboratories, quizzes, assignments, appropriate course reviews, etc.).

1. Final examinations, when utilized, must be given at the scheduled time during finals week
2. No student activities or athletic events will be scheduled during Dead Week
3. Projects and/or examinations due Dead Week may not exceed 20 percent of the final course grade without giving students at least three weeks prior notice

The Provost and Vice-President for Academic Affairs must approve any exceptions to this policy.

Final Exams

All teaching faculty will meet their classes during finals week at the final-examination time designated in the official class schedule issued at the beginning of each term.

1. No student activities or athletic events will be scheduled during finals week
2. Methods of evaluation are at the discretion of the instructor. The methods of evaluation of student achievement and grading standards should be specified in the course syllabus and distributed to students the first week of class
3. Faculty who use a final examination will administer that exam at the time designated in the official class final examination schedule. Finals times are designed not to conflict

Individual students may request exceptions to this policy. These must be approved in advance by the instructor.

Course instructors may request exceptions to this policy. The exception must be approved by the dean of the college and students should be given at least three weeks prior notice of the change.

Graduation

Application for Degree

Students must file an *Application for Degree* at least two terms prior to the term of graduation. These forms are available in TECHweb, at the Registrar's Office, in the Portland-Metro Programs offices and in academic departments. They are submitted to the Registrar's Office for evaluation.

Oregon Tech Portland-Metro students must schedule a graduation degree-check appointment with their major's program director at least two terms prior to graduation. The final graduation check is completed by the Registrar's Office at the Klamath Falls campus.

Monitoring Degree Progress

DegreeWorks is a web-based degree audit and advising tool that is utilized by students and advisors. The software identifies courses students have completed and courses still needed to fulfill requirements. Students and Advisor access this tool through Web for Student or Web for Faculty. The Office of the Registrar works with faculty annually to maintain an accurate degree audit that is used to clear graduation requirements.

Sealing of a Degree

All grade changes, removals of incompletes, and transfer work necessary for completion of degree requirements must be on file in the Office of the Registrar by the Friday following the end of the term of graduation. Academic records are sealed ninety days after the conferral of a degree: no changes to the record will be made following that date.

Grade Point Requirement

Oregon Tech requires a minimum cumulative GPA of 2.0 for graduation.

Graduation Residency Requirements

All degree/certificate/diploma programs require students to take a minimum number of Oregon Tech courses (25 percent of total credits). For a certificate, a minimum of 5 term-credit hours must be taken from Oregon Tech. For an associate degree, a minimum of 30 term-credit hours must be taken from Oregon Tech. For a bachelor's, a minimum of 45 term-credit hours must be taken from Oregon Tech. For a master's, a minimum of 12 term-credit hours must be taken from Oregon Tech. Credits earned through Oregon Tech course challenge or the Oregon Tech Credit-for-Prior-Learning program are considered resident credits toward graduation requirements. All other credits granted by examination (CLEP or AP) or other methods are non-resident credits. Students desiring to complete course requirements for graduation from Oregon Tech at another college or university must receive prior approval from the Registrar's Office.

Catalog of Graduation

Students must meet all degree requirements from one Oregon Tech catalog. The catalog may be chosen from the year the student is first admitted and enrolled or from any subsequent year. However, at the time of graduation, all students, including transfer students, must use a catalog that is no more than seven years old.

Transfer students may select their catalog of graduation prior to full admission to Oregon Tech by obtaining written approval from their Oregon Tech major department and the University Registrar. The agreed upon catalog will be the one a student uses when he/she transfers to Oregon Tech. Students must enroll at Oregon Tech within two years of this approval.

Departments periodically review their curriculum for technical currency. As a result, significant program changes may occur. Courses previously required in the curriculum can no longer be offered. The major department will provide a transition plan for students to fulfill degree requirements.

Programs discontinued by the university may have specific entrance and graduation limits that override the catalog of graduation.

Baccalaureate Upper-Division Credit Requirement

Baccalaureate students must complete a minimum of 60 credits of upper-division work before a degree will be awarded. Upper-division work is defined as 300- and 400-level classes at a bachelor's-degree-granting institution.

Multiple Majors

An undergraduate student may earn multiple majors if all the degree requirements for each major are met. All successfully completed majors will be listed on both the transcript and diploma.

Concurrent Degrees

Students may be granted a second bachelor's degree provided they meet the requirements for both degrees and complete an additional 36 credits beyond the requirements of the first degree. 45 credits are required if the first degree was not granted by Oregon Tech and students must meet the general-education requirements as outlined in their catalog of graduation. If the first bachelor's degree was granted by Oregon Tech, the general education requirements are waived for the second degree.

Curricular Requirements

Curricular requirements are determined by, and vary with, the departments involved. Major requirements are published in this catalog.

Minors

A minor consists of a minimum of 18 credits in a subject field outside the student's major. The total credits required for a minor depend on the academic discipline, the prerequisites of the required courses and the student's starting level in the discipline. Requirements for approved minors are listed by department in this catalog. Minors will only be granted at the time students receive their baccalaureate degrees. Application for a minor must be submitted to the University Registrar with the student's application for degree.

Graduation in Absentia

Students wishing to complete the Oregon Tech degree by attending another college and transferring work after the minimum residency credits have been met (30 for associate and 45 for bachelor's degree) must complete an *Application for Degree* and have the final transferring classes approved for their degree by the transcript evaluator in the Oregon Tech Registrar's Office. This should be done prior to leaving Oregon Tech and beginning at the other college.

Commencement

Oregon Tech's main graduation ceremony is held in Klamath Falls, Oregon in June each year. We encourage earlier graduates of the academic year (Summer, Fall, and Winter), and the graduating candidates for Spring and Summer to participate. Graduates from all Oregon Tech campuses are also invited to participate. Academic honors are calculated after the June ceremony.

Diplomas

Diplomas are not issued at Commencement, regardless of graduation term. Students officially graduate when grades are finalized and it is verified that all degree requirements have been successfully completed. Please allow 4-6 weeks for the degree to be officially awarded to student records and mailed.

NOTE: Diplomas are held if there is an outstanding balance on student accounts and/or if required loan Exit Interviews have not been completed.

Academic Honors

At each Commencement, Oregon Tech recognizes academically outstanding students who will receive their bachelor's degree with academic honors. This honor is estimated and based on all Oregon Tech courses but may change after final grades are processed. *To be eligible for honors a student must complete a minimum of 75 Oregon Tech GPA hours/credits.*

Academic honors are based on the following criteria:

Cum Laude
Graduation with honors 3.50-3.74 GPA

Magna Cum Laude
Graduation with high honors 3.75-3.89 GPA

Summa Cum Laude
Graduation with highest honors 3.90-4.00 GPA.

NOTE: Students who do not have 75 Oregon Tech credits and who are graduating from a Degree Completion program must complete a minimum of 45 graded Oregon Tech credits to be eligible for honors. For Degree Completion students, who fall into this category, honors are based on all Oregon Tech courses and transfer courses used for the degree.

Honors recognized at the graduation ceremony do not include grades from the term immediately preceding Commencement. After final grades are posted, the honors standing of some students may change. These students will be notified. A student's final honors standing will be posted on the official transcript. Summer graduates will not receive academic honors at the spring commencement.

Only past and spring honors are recognized at commencement, with an announcement and with honor cords. Summer graduates will have honors listed on their diploma and official transcripts upon completion.

Academic Term Honors

President's List (Applicable to full-time undergraduate students only)
Each term, students with a GPA of 3.70 or better are included on the President's List.

Dean's List (Applicable to full-time undergraduate students only)
Each term, students with a GPA of 3.30-3.69 are included on the Dean's List.

Honors

Special Recognition

Each spring a number of Oregon Tech graduates will be selected for membership in national honor societies. Honor society members can be identified by a distinctive honor cord worn over the shoulder at Commencement.

Alpha Chi, which selects members from baccalaureate programs, identifies its honor society graduates with a white cord. Tau Alpha Pi, which selects members from the sophomore, junior and senior classes of engineering-technology majors, identifies its graduates with a crimson cord. Lambda Phi Eta selects from juniors and seniors in Communication Studies. Members are identified by a gold cord. Lambda Nu selects from juniors and seniors in Medical Imaging. Members are identified by a cord that is green, gold and maroon. Sigma Theta Tau, who wear gold and maroon cords, includes Nursing students in the top third of the class.

Baccalaureate General Education Requirements

General Education Requirements

Oregon Tech's General Education requirements provide breadth and depth to the Oregon Tech educational experience. The requirements are designed to help students widen perspectives, explore relationships between subjects and develop critical and analytical thinking skills in areas integrated with a student's major. General education provides the core of an undergraduate university education. These courses help students make progress toward becoming educated persons and provide a foundation for lifelong learning.

Through general education at Oregon Tech, students study broad topics, principles, theories and disciplines. The courses are organized within the curriculum in such a manner that students will acquire knowledge, abilities and appreciation as integrated elements of the educational experience. In addition, general education courses teach students to communicate clearly, think critically and globally, define and solve problems within and across disciplines, calculate logically and apply scientific reasoning. No matter what their major, students will benefit from studying areas of knowledge that help them become competent, well-rounded professionals as well as well-educated human beings and citizens.

All students must complete the university general education requirements as listed in the curriculum map for the major and in this catalog. If a student holds a baccalaureate degree or higher from a recognized, accredited institution, as determined by Oregon Tech, the Oregon Tech general education requirements for the Oregon Tech baccalaureate may be substituted subject to departmental accreditation requirements.

General education credits at Oregon Tech total 55 credits and include 18 credits of Communication, 9 credits of Humanities, 12 credits of Social Science and 16 credits of Science/Math with a least 4 credits of college-level math where intermediate algebra is a prerequisite.

Transfer students entering Oregon Tech who have earned either an Associate of Arts Oregon Transfer degree (AAOT) or an Associate of Science in Business degree (ASOTB) from an Oregon community college will be considered as having met Oregon Tech's lower division general education requirements. Please see the Oregon Tech website for updated list of courses granted.

* D*evelopmental courses, including MATH 100 and WRI 115, cannot be used for graduation.*

Communication

18 credits:

- COM 111Z - Public Speaking
- WRI 121Z - Composition I
- WRI 122Z - Composition II OR WRI 227Z - Technical Writing
- Plus 6 credits from the following list:
    - COM 205 - Intercultural Comm
    - COM 218Z - Interpersonal Communication
    - COM 320 - Advanced Intercultural Comm
    - COM 347 - Negotiation & Conflict Resol'n
    - COM 401 - Civil Engineering Project I
    - SPE 314 - Argumentation
    - SPE 321 - Small Group/Team Comm
    - WRI 123 - Research Writing
    - WRI 214 - Business Correspondence
    - WRI 227Z - Technical Writing
    - WRI 327 - Advanced Tech Writing
    - WRI 328 - Style
    - WRI 345 - Science Writing
    - WRI 350 - Documentation Develop
    - WRI 410 - Proposal & Grant Writing

Humanities

9 credits selected by student or specified by a major department from the following:

- ART - Art

- HUM - Humanities
- LIT (ENG) - Literature
- MUS - Music
- PHIL - Philosophy
- Languages (second year)

Other transfer courses, defined as "humanities" by the Registrar's Office, may be used in this category. No more than three credits of activity or performance-based courses may be used in this category.

Social Science

12 credits selected by student or specified by major department from the following:

- ANTH - Anthropology
- ECO - Economics
- GEOG - Geography
- HIST - History
- PSCI - Political Science
- PSY - Psychology
- SOC - Sociology

Other transfer courses, defined as "social science" by the Registrar's Office, may be used in this category.

* ANTH 101 may not be used to satisfy both Social Science and Science credits

* GEOG 105 may not be used to satisfy Social Science credits

Technology

Specific requirements for demonstrating computer proficiency may be established by the academic department.

Science/Mathematics

One, four credit college-level mathematics course for which at least intermediate algebra is the course prerequisite.

Plus 12 credits selected by student or specified by major department from:

- biological sciences (BIO, CHE, ENV 111)
- mathematics (MATH)
- statistics (STAT 243Z)
- physical sciences (PHY)
- physical geography (GEOG 105) or geology (GEOL)
- physical anthropology (ANTH 101)

Other transfer courses, defined as "Science/Mathematics" by the Registrar's Office, may be used in this category. **At least four credits must be completed from a laboratory-based science course in BIO, CHE, GEOG, GEOL or PHY.**

Baccalaureate Upper-Division Requirement

Baccalaureate students must complete a minimum of 60 credits of upper-division work before a degree will be awarded. Upper-division work is defined as 300- and 400-level classes at a bachelor's-degree-granting institution.

Bachelor of Science Degree

The Bachelor of Science degree requires the student to opt between completion of 36 credits in mathematics and science or 45 credits in mathematics, science and social science. Students placed at a higher beginning level of mathematics than is published in the curriculum of their major may choose to substitute those mathematics credits surpassed by their accelerated level of placement with electives from any department to attain the required number of general education credits required by the university for graduation.

Intercultural Studies

Students are encouraged to select at least one class from the following lists of intercultural courses. These courses also satisfy general education requirements:

- Humanities:
    - HUM 147 - West Cult in the Classical Age
    - HUM 148 - West Cult in the Medieval Age
    - HUM 149 - West Cult in the Modern Age

- Social Science:
    - ANTH 103 - Intro to Cultural Anthropology
    - GEOG 106 - Cultural Geography I
    - GEOG 107 - Cultural Geography II
    - GEOG 108 - Cultural Geography III
    - HIST 392 - Modern Asia
- Communication
    - COM 205 - Intercultural Communication

University Departments and Programs

Oregon Institute of Technology

Health, Arts and Sciences

Applied Mathematics Department

Tiernan Fogarty, *Department Chair*

Professors: D. Deb, J. Fischer, T. Fogarty, D. Hammond, C. Negoita, R. Paul, J. Reid, T. Torres
Associate Professors: K. Davis
Assistant Professors: P. Melland, J. Smith, A. Whiteley

General Education

Courses offered by the Department of Applied Mathematics are designed to satisfy the needs of majors and non-majors interested in mathematics primarily as part of a broad technical education. A major emphasis is on development of skills required to solve applied problems.

Success in mathematics requires that entering students begin their study in the course which best matches their ability and background. Accordingly, all entering students must pass a placement examination at the appropriate level before being allowed to register for their initial mathematics course.

Degrees Offered

- Bachelor of Science in Applied Mathematics
- Bachelor of Science in Data Science

Minors Offered

- Applied Mathematics
- Applied Statistics

Applied Mathematics

Program Learning Outcomes

Graduates will be able to:

1. Apply mathematical concepts and principles to perform computations
2. Apply mathematics to solve problems
3. Create, use and analyze graphical representations of mathematical relationships
4. Communicate mathematical knowledge and understanding
5. Apply technology tools to solve problems
6. Perform abstract mathematical reasoning
7. Learn independently

Career Opportunities

Upon completing the requirements for the Applied Mathematics degree students will be prepared for a variety of jobs in industry including numerical modeling, signal processing, data analysis, and many others. The degree also provides students a solid foundation to further their education by entering a Masters or Ph.D. program in Mathematics or Applied Mathematics.

Student Preparation

Students entering the Applied Mathematics Program from high school should have a minimum of two years of algebra, one year of pre-calculus, one year of geometry, and two years of physical science (physics or chemistry preferred). Additional courses in mathematics, science, English and computer programming will be very helpful. Students entering the Applied Mathematics Program by transfer are requested to contact the Mathematics Department concerning transfer of technical course work.

Data Science

Data scientists use computation and applied mathematics to extract insights from data. In addition to technical duties, they work as part of a team, must communicate effectively, and account for ethical and context-specific considerations. The B.S. in Data Science degree at Oregon Tech prepares students for these roles by combining

coursework from five departments: Applied Mathematics (the program host), Computer Systems Engineering Technology, Communication, Management and Geomatics.

A key element of the program is extensive hands-on experience. In their junior year, students work in small teams to design or implement applications of material from previous classes. In their senior year, each student completes a capstone project to develop a data driven solution for an outside group, such as a local business or national organization.

The mathematical and programming skills gained in the program enable students to go beyond off-the-shelf solutions for machine learning and data processing. Students are introduced to advanced methods for large and/or complex data, such as time-series, geospatial or text. A special emphasis is placed on using transparent statistical methods, in which assumptions for mathematical models can be clearly communicated to and understood by a non-technical audience who are then better equipped to rate the value of conclusions draw from such models.

After graduation, students are ready for immediate employment as data scientists or for advanced coursework.

Program Learning Outcomes

Graduates will have the technical skills necessary to gain actionable insights from data, the ability to effectively communicate these insights as a member of an interdisciplinary team, and the necessary foundation in ethics, mathematics, and computer science to thrive in the evolving field of data science.

Graduates will:

1. Be prepared for the professional practice of data science or acceptance into a graduate program,
2. Have an appropriate foundation in mathematics, statistics, and computer science in order to thrive in an evolving field,
3. Be able to identify and incorporate ethical considerations in their work,
4. Be able to identify, collect and analyze the data necessary for actionable insights, and
5. Be able to effectively communicate findings.

Career Opportunities

Data scientists work in a wide variety of contexts. For example, a data scientist might help design a survey to inform the marketing strategy for a new product, analyze data from electronic health records or gather large amounts of data from websites or government databases.

Graduates may obtain employment under a variety of job titles, which may include data scientist, data analyst, business intelligence analyst, research analyst, and statistician.

Many people currently working as data scientists hold advanced degrees but this trend may change as undergraduate programs begin to produce graduates with appropriate skill sets.

Student Preparation and Admissions

Students must meet the standard Oregon Tech admissions requirements. Transfer students must arrange for official transcripts from each college and university attended to be sent to Oregon Tech and are requested to contact the Applied Mathematics Department concerning transfer of technical course work.

Program Curriculum

Students looking to work within a specific context or apply for a specific graduate program should work closely with their advisor to choose a relevant application for their senior year project and to pursue an appropriate minor or other additional coursework.

Applied Mathematics Minor

The minor in Applied Mathematics provides formal recognition of mathematical proficiency. It is composed of a core of required courses and upper-division electives related to the student's major. The minor consists of 29 credits, 19 from required courses and 10 from elective courses.

This minor is open to all majors and is especially recommended for students with an interest in pursuing a career related to mathematics. It will enhance their employability and improve graduate school possibilities.

Curriculum

A passing grade in all courses and a cumulative GPA of 2.0 or better is required to be awarded the minor.

At least 12 credits must be taken at Oregon Tech.

Required Courses:

- MATH 251 - Differential Calculus Credit Hours: 4
- MATH 252 - Integral Calculus Credit Hours: 4
- MATH 253 - Sequences and Series Credit Hours: 4
- MATH 254 - Vector Calculus I Credit Hours: 4
- MATH 341 - Linear Algebra I Credit Hours: 4
- Plus 10 additional upper-division mathematics credits selected from the list below.

Upper-Division Electives:

Students are required to consult an advisor from the Mathematics Department to select upper-division mathematics courses that would be most applicable to their major and/or career goals.

- MATH 310 - Mathematical Structures Credit Hours: 4
- MATH 321 - Appl Diff Equation I Credit Hours: 4
- MATH 322 - Appl Diff Equation II Credit Hours: 4
- MATH 327 - Discrete Mathematics Credit Hours: 4
- MATH 342 - Linear Algebra II Credit Hours: 4
- MATH 346 - Number Theory Credit Hours: 4
- MATH 347 - Fundmtls of Abstract Algebra Credit Hours: 4
- MATH 354 - Vector Calculus II Credit Hours: 4
- MATH 361 - Statistical Methods I Credit Hours: 4
- MATH 362 - Statistical Methods II Credit Hours: 4
- MATH 421 - Applied Partial Diff Equations Credit Hours: 4
- MATH 422 - Applied Partial Diff Equtns II Credit Hours: 4
- MATH 423 - Applied Partial Diff Equ III Credit Hours: 4
- MATH 451 - Numerical Methods I Credit Hours: 4
- MATH 452 - Numerical Methods II Credit Hours: 4
- MATH 453 - Numerical Methods III Credit Hours: 4
- MATH 465 - Mathematical Statistics Credit Hours: 4

Applied Mathematics, BS

Graduates with an Oregon Tech Applied Mathematics degree will have knowledge and appreciation of the depth of mathematics, including the connections between different areas of mathematics, and between mathematics and other disciplines. Course work for the bachelor's degree is intended to provide a solid foundation of mathematical theory and a broad selection of applied work both in and outside mathematics.

The major includes course work in calculus, differential equations, and numerical methods. Students also take a sequence of introductory physics courses and a further sequence in a technical field outside mathematics. This program allows students to pick from a wide variety of courses that interest them in order to fill social science, elective and humanities requirements.

Curriculum

Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- MATH 251 - Differential Calculus Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
  Social Science Elective Credit Hours: 3

Winter

- STAT 201 - Intro to Data Science Credit Hours: 4
- MATH 252 - Integral Calculus Credit Hours: 4
- PHY 221 - General Physics w/Calculus Credit Hours: 4
  Social Science Elective Credit Hours: 3

Spring

- MATH 253 - Sequences and Series Credit Hours: 4
- PHY 222 - General Physics w/Calculus Credit Hours: 4
  Humanities Elective Credit Hours: 3
  Social Science Elective Credit Hours: 3

Sophomore Year

Fall

- MATH 254 - Vector Calculus I Credit Hours: 4
- MATH 321 - Appl Diff Equation I Credit Hours: 4
- PHY 223 - General Physics w/Calculus Credit Hours: 4
  Elective Credit Hours: 3

Winter

- MATH 341 - Linear Algebra I Credit Hours: 4
- MATH 354 - Vector Calculus II Credit Hours: 4

Elective Credit Hours: 4
Humanities Elective Credit Hours: 3

Spring

- MATH 361 - Statistical Methods I Credit Hours: 4
  Elective Credit Hours: 3
  Elective Credit Hours: 3
  Elective Credit Hours: 3
  Humanities Elective Credit Hours: 3

Junior Year

Fall

- MATH 310 - Mathematical Structures Credit Hours: 4
- SPE 321 - Small Group/Team Comm Credit Hours: 3
  Focused Elective Credit Hours: 3[a]
  Elective Credit Hours: 4 (upper division)

Winter

- MATH 346 - Number Theory Credit Hours: 4
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4
  Focused Elective Credit Hours: 3[a]
  Elective Credit Hours: 3 (upper division)
  Elective Credit Hours: 3

Spring

- MATH 322 - Appl Diff Equation II Credit Hours: 4
- MATH 451 - Numerical Methods I Credit Hours: 4
  Focused Elective Credit Hours: 3[a]
  Math/Physics Elective Credit Hours: 3[b]
  Elective Credit Hours: 2

Senior Year

Fall

- MATH 421 - Applied Partial Diff Equations Credit Hours: 4
  Focused Elective Credit Hours: 4[a]
  Math/Physics Elective Credit Hours: 4[b]
  Elective Credit Hours: 3

Winter

- Mathematics Core Credit Hours: 4 (upper-division)[c]
- Focused Elective Credit Hours: 3[a]
- Social Science Elective Credit Hours: 3
- Elective Credit Hours: 6

Spring

Mathematics Core Credit Hours: 4 (upper-division[c]

- WRI 327 - Advanced Tech Writing Credit Hours: 3
  or
- WRI 350 - Documentation Develop Credit Hours: 3
  Elective Credit Hours: 6

Total for a B.S. in Mathematics: 181 Credit Hours

[a] Students will choose at least 16 credits from outside of mathematics with the approval of a mathematics advisor. At least 9 credits should be from a 3 course sequence. See above for examples.

[b] Students will choose 2 upper-division courses from mathematics or physics with the approval of a mathematics advisor.

[c] See "Upper-Division Core Requirements" listed above in the degree requirements section. The years and terms that these courses are offered will vary. For questions about availability, please consult with an advisor or contact the Mathematics Department.

Electives

Students will choose appropriate electives from outside of mathematics. These courses should support the program objectives and must be approved by a mathematics advisor. The focused electives must total at least 16 credits at least 9 of which are from a 3 course sequence; see below for examples.

Examples of Focused Elective Sequences

- Programming Languages:CST 116, CST 126, CST 223
- General Chemistry: CHE 221, CHE 222, CHE 223
- Engineering Mechanics: ENGR 211, ENGR 212, ENGR 213
- Physics: PHY 311, PHY 312, PHY 313

Examples of Focused Electives

- Chemistry: CHE 331, CHE 332, CHE 333
- ENGR 318 - Engineering Mech: Fluids Engineering Mech: Fluids
- ENGR 236 Fund of Elec Circuits
- PSY 361 Industrial Psychology
- MIT 341 Magnetic Resonance Imaging

Applied Mathematics, option in Computational Mathematics, BS

Freshman Year

Fall

- CST 116 - C++ Programming I Credit Hours: 4
- MATH 251 - Differential Calculus Credit Hours: 4
- STAT 201 - Intro to Data Science Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

Winter

- COM 111Z - Public Speaking Credit Hours: 4
- CST 126 - C++ Programming II Credit Hours: 4
- MATH 252 - Integral Calculus Credit Hours: 4
- PHY 221 - General Physics w/Calculus Credit Hours: 4

Spring

- CST 136 - OOP with C++ Credit Hours: 4
- MATH 253 - Sequences and Series Credit Hours: 4
- PHY 222 - General Physics w/Calculus Credit Hours: 4
- Social Science Elective Credit: 3

Sophomore Year

Fall

- MATH 341 - Linear Algebra I Credit Hours: 4
- MATH 254 - Vector Calculus I Credit Hours: 4
- PHY 223 - General Physics w/Calculus Credit Hours: 4
- Social Science Elective Credit: 3

Winter

- MATH 354 - Vector Calculus II Credit Hours: 4
- MATH 361 - Statistical Methods I Credit Hours: 4
- MATH 321 - Appl Diff Equation I Credit Hours: 4
- Social Science Elective Credit: 3

Spring

- MATH 322 - Appl Diff Equation II Credit Hours: 4
- MATH 342 - Linear Algebra II Credit Hours: 4
- MATH 465 - Mathematical Statistics Credit Hours: 4
- Humanities Elective Credit: 3

Junior Year

Fall

- MATH 310 - Mathematical Structures Credit Hours: 4
- SPE 321 - Small Group/Team Comm Credit Hours: 3
- Humanities Elective Credit: 3
- Social Science Elective Credit: 3

Winter

- MATH 346 - Number Theory Credit Hours: 4
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4
- Option Specific Elective Credit: 4
- Elective Credit: 3

Spring

- Option specific elective, Credit: 4
- Elective Credit: 4
- Elective Credit: 3
- Elective Credit: 3

Senior Year

Fall

- MATH 421 - Applied Partial Diff Equations Credit Hours: 4
- MATH 451 - Numerical Methods I Credit Hours: 4
- Communication Elective Credit: 3
- Elective Credit: 3
- Elective Credit: 3

Winter

- MATH 452 - Numerical Methods II Credit Hours: 4
- Elective Credit: 3
- Elective Credit: 3
- Option Specific Elective Credit: 4

Spring

- MATH 453 - Numerical Methods III Credit Hours: 4
- Humanities Elective Credit: 3
- Elective Credit: 4
- Elective Credit: 4

Total for a B.S. in Applied Mathematics, option in Computational Mathematics, 180 Credit Hours

Electives

Computational Mathematics Option Required Electives

- CST 116 - C++ Programming I Credit Hours: 4
- CST 126 - C++ Programming II Credit Hours: 4
- CST 136 - OOP with C++ Credit Hours: 4
- MATH 342 - Linear Algebra II Credit Hours: 4
- MATH 361 - Statistical Methods I Credit Hours: 4

Computational Mathematics Option Electives

Choose courses from the following list totaling at least 12 hours. Taking CST 236 is strongly recommended.

- CST 236 - Engineering for Quality Software Credit Hours: 4
- MATH 362 - Statistical Methods II Credit Hours: 4
- STAT 211 - Data Science Methods Credit Hours: 4
- STAT 441 - Statistical Machine Learning I Credit Hours: 4

Applied Mathematics, option in Physics, BS

Freshman Year

Fall

- MATH 251 - Differential Calculus Credit Hours: 4
- STAT 201 - Intro to Data Science Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
- Social Science Elective Credit: 3

Winter

- COM 111Z - Public Speaking Credit Hours: 4
- MATH 252 - Integral Calculus Credit Hours: 4
- PHY 221 - General Physics w/Calculus Credit Hours: 4
- Social Science Elective Credit: 3

Spring

- MATH 253 - Sequences and Series Credit Hours: 4
- PHY 222 - General Physics w/Calculus Credit Hours: 4
- Social Science Elective Credit: 3
- Humanities Elective Credit: 3

Sophomore Year

Fall

- MATH 254 - Vector Calculus I Credit Hours: 4
- MATH 341 - Linear Algebra I Credit Hours: 4

- PHY 223 - General Physics w/Calculus Credit Hours: 4
- Social Science Elective Credit: 3

Winter

- MATH 354 - Vector Calculus II Credit Hours: 4
- MATH 321 - Appl Diff Equation I Credit Hours: 4
- Humanities Elective Credit: 3
- Elective Credit Hours: 3

Spring

- MATH 322 - Appl Diff Equation II Credit Hours: 4
- MATH 465 - Mathematical Statistics Credit Hours: 4
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4
- Humanities Elective Credit: 3

Junior Year

Fall

- MATH 310 - Mathematical Structures Credit Hours: 4
- SPE 321 - Small Group/Team Comm Credit Hours: 3
- EE 221 - Circuits I Credit Hours: 4
- Upper Division Elective Credit Hours: 3

Winter

- MATH 346 - Number Theory Credit Hours: 4
- Upper Division Elective Credit Hours: 3
- Elective Credit Hours: 6
- Physics Option Elective Credit Hours: 3

Spring

- ENGR 211 - Engineering Mechanics: Statics Credit Hours: 4
- Physics Option Elective Credit Hours: 3
- Elective Credit Hours: 3
- Elective Credit Hours: 3
- Upper Division Elective Credit Hours: 3

Senior Year

Fall

- MATH 421 - Applied Partial Diff Equations Credit Hours: 4

- MATH 451 - Numerical Methods I Credit Hours: 4
- Physics Option Elective Credit Hours: 3
- Communication Elective Credit Hours: 3

Winter

- PHY 311 - Intro to Modern Physics Credit Hours: 3
- Senior Sequence Credit Hours: 4
- Physics Option Elective Credit Hours: 3
- Elective Credit Hours: 6

Spring

- Senior Sequence Credit Hours: 4
- Elective Credit Hours: 12

Total for a B.S. in Applied Mathematics, option in Physic, 180 Credit Hours

Senior Sequence/Project

Choose two classes from the list:

- MATH 422 - Applied Partial Diff Equtns II Credit Hours: 4
- MATH 423 - Applied Partial Diff Equ III Credit Hours: 4
- MATH 452 - Numerical Methods II Credit Hours: 4
- MATH 453 - Numerical Methods III Credit Hours: 4

Electives

Physics Option Required Electives

- PHY 223 - General Physics w/Calculus Credit Hours: 4
- PHY 311 - Intro to Modern Physics Credit Hours: 3
- EE 221 - Circuits I Credit Hours: 4
- ENGR 211 - Engineering Mechanics: Statics Credit Hours: 4

Physics Option Electives

- EE 341 - Electricity/Magnetism w/Transm Credit Hours: 4
- EE 223 - Circuits II Credit Hours: 4
- EE 225 - Circuits III Credit Hours: 4
- ENGR 212 - Engineering Mech: Dynamics Credit Hours: 3
- ENGR 318 - Engineering Mech: Fluids Credit Hours: 4
- ENGR 355 - Thermodynamics Credit Hours: 3
- MATH 342 - Linear Algebra II Credit Hours: 4
- PHY 312 - Intro to Modern Physics Credit Hours: 3
- PHY 313 - Intro to Modern Physics Credit Hours: 3
- PHY 330 - Electricity & Magnetism Credit Hours: 3

Applied Mathematics, option in Statistics, BS

Freshman Year

Fall

- MATH 251 - Differential Calculus Credit Hours: 4
- STAT 201 - Intro to Data Science Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4
- Social Science Elective Credit: 3

Winter

- MATH 252 - Integral Calculus Credit Hours: 4
- PHY 221 - General Physics w/Calculus Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
- Social Science Elective Credit: 3

Spring

- MATH 253 - Sequences and Series Credit Hours: 4
- PHY 222 - General Physics w/Calculus Credit Hours: 4
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4
- Social Science Elective Credit: 3

Sophomore Year

Fall

- MATH 341 - Linear Algebra I Credit Hours: 4
- MATH 254 - Vector Calculus I Credit Hours: 4
- Social Science Elective Credit: 3
- Humanities Elective Credit: 3

Winter

- MATH 354 - Vector Calculus II Credit Hours: 4
- MATH 361 - Statistical Methods I Credit Hours: 4
- Humanities Elective Credit: 3
- Elective Credit Hours: 4

Spring

- MATH 342 - Linear Algebra II Credit Hours: 4
- MATH 362 - Statistical Methods II Credit Hours: 4
- Humanities Elective Credit: 3

- Elective Credit: 4

Junior Year

Fall

- MATH 451 - Numerical Methods I Credit Hours: 4
- MATH 310 - Mathematical Structures Credit Hours: 4
- Option Specific Elective Credit: 4
- Upper Division Elective Credit: 3

Winter

- MATH 346 - Number Theory Credit Hours: 4
- MATH 321 - Appl Diff Equation I Credit Hours: 4
- Option Specific Elective: 4
  or
- Senior Sequence Credit: 4
- Elective Credit: 3

Spring

- MATH 465 - Mathematical Statistics Credit Hours: 4
- MATH 322 - Appl Diff Equation II Credit Hours: 4
- Option Specific Elective: 4
  or
- Senior Sequence Credit: 4
- Elective Credit: 3

Senior Year

Fall

- MATH 421 - Applied Partial Diff Equations Credit Hours: 4
- SPE 321 - Small Group/Team Comm Credit Hours: 3
- Communication Elective Credit: 3
- Elective Credit: 3

Winter

- Option specific elective or Senior Sequence credit: 4
- Elective Credit: 4
- Elective Credit: 4
- Elective Credit: 3

Spring

- Option specific elective or Senior Sequence credit: 4

- Elective Credit: 4
- Elective Credit: 4
- Elective Credit: 3

Total for a B.S. in Applied Mathematics, option in Statistics, 180 Credit Hours

Senior Sequence/Project

Choose two classes from the list below:

- MATH 422 - Applied Partial Diff Equtns II Credit Hours: 4
- MATH 423 - Applied Partial Diff Equ III Credit Hours: 4
- MATH 452 - Numerical Methods II Credit Hours: 4
- MATH 453 - Numerical Methods III Credit Hours: 4

Electives

Statistics Option Required Electives

- MATH 342 - Linear Algebra II Credit Hours: 4
- MATH 361 - Statistical Methods I Credit Hours: 4
- MATH 362 - Statistical Methods II Credit Hours: 4

Statistics Option Electives

- MATH 407 - Seminar Credit Hours: 6
- STAT 211 - Data Science Methods Credit Hours: 4
- STAT 405 - Advanced Methods in Data Science Credit Hours: 4
- STAT 412 - Regression & Times Series Credit Hours: 4
- STAT 414 - Stat Methods in Epidemiology Credit Hours: 4
- STAT 441 - Statistical Machine Learning I Credit Hours: 4
- STAT 442 - Statistical Machine Learning II Credit Hours: 4

Applied Statistics Minor

The Minor in Applied Statistics is open to students in all majors and is specifically recommended for those students who wish to pursue graduate school or work in research. Students pursuing the minor will have enhanced statistical skills and a deeper understanding of statistics than what is received in one or two introductory courses. A minimum of 18 credits is required to complete this minor, 8 credits from required courses and 10 credits from elective courses.

Curriculum List

Students are advised to consult an advisor from the Mathematics Department of select upper-division mathematics courses that would be most applicable to their major and/or career goals.

1. A minimum of 18 credits (all earned with grade of "C" or above) is required to earn the minor.
2. Required courses: MATH 361 - Statistical Methods I and MATH 362 - Statistical Methods II. In addition, at least 10 more credits of upper–division courses are needed from the lists below. Note that at least 4 credits of those must come from MATH/STAT courses listed below.

3. At least 12 credits must be taken at OIT.

Courses

- Upper-Division MATH/STAT Electives (at **least** 4 credits)
- MATH 465 - Mathematical Statistics Credit Hours: 4
- STAT 412 - Regression & Times Series Credit Hours: 4
- STAT 414 - Stat Methods in Epidemiology Credit Hours: 4

Additional Courses

(at **most** 6 credits)

- ENV 434 - Advanced Data Analysis Credit Hours: 4

- BUS 456 - Business Research Methods Credit Hours: 3
  or
- BUS 457 - Business Research Methods II Credit Hours: 3

- COM 326 - Communication Research Credit Hours: 3
- GME 444 - Adjustment by Least Squares Credit Hours: 4
- MFG 333 - Stat Methods Qual/Improv Credit Hours: 3

- MGT 461 - Lean/Six Sigma Management I Credit Hours: 3
  or
- MGT 462 - Lean/Six Sigma Management II Credit Hours: 3
  or
- MGT 463 - Lean/Six Sigma Management III Credit Hours: 3

- PSY 313 - Psych Research Methods I Credit Hours: 4
  or
- PSY 314 - Psych Research Methods II Credit Hours: 4

Note:

Not all courses are offered every term or every year.

Data Science, BS

Curriculum

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- STAT 201 - Intro to Data Science Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
- Humanities Elective Credit Hours: 3
- Social Science Elective Credit Hours: 3

Winter

- CST 116 - C++ Programming I Credit Hours: 4
- GIS 134 - Geographic Information Systems Credit Hours: 3
- Humanities Elective Credit Hours: 3
- Social Science Elective Credit Hours: 3

Spring

- CST 126 - C++ Programming II Credit Hours: 4
- MATH 251 - Differential Calculus Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4
- Social Science Elective Credit Hours: 3

Sophomore Year

Fall

- CST 136 - OOP with C++ Credit Hours: 4
- MATH 252 - Integral Calculus Credit Hours: 4
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4
- Lab Science Elective Credit Hours: 4

Winter

- MATH 254 - Vector Calculus I Credit Hours: 4
- MATH 361 - Statistical Methods I Credit Hours: 4
- Lab Science Elective Credit Hours: 4

Spring

- CST 211 - Data Structures Credit Hours: 4
- SPE 321 - Small Group/Team Comm Credit Hours: 3
- STAT 211 - Data Science Methods Credit Hours: 4
- Social Science Elective Credit Hours: 3

Junior Year

Fall

- CST 324 - Database Systems and Design Credit Hours: 4
- MATH 341 - Linear Algebra I Credit Hours: 4
- MATH 362 - Statistical Methods II Credit Hours: 4
- STAT 395 - Junior Project I Credit Hours: 4

Winter

- GIS 316 - Geospatial Vector Analysis Credit Hours: 4
- MATH 451 - Numerical Methods I Credit Hours: 4
- STAT 396 - Junior Project II Credit Hours: 4
- STAT 441 - Statistical Machine Learning I Credit Hours: 4

Spring

- MATH 342 - Linear Algebra II Credit Hours: 4
- MIS 311 - Intro to Systems Analysis Credit Hours: 3
- STAT 397 - Junior Project III Credit Hours: 1
- STAT 412 - Regression & Times Series Credit Hours: 4
- STAT 442 - Statistical Machine Learning II Credit Hours: 4

Senior Year

Fall

- GIS 306 - Geospatial Raster Analysis Credit Hours: 4
- MATH 465 - Mathematical Statistics Credit Hours: 4
- MIS 312 - Systems Analysis I Credit Hours: 4
- STAT 495 - Senior Project I Credit Hours: 4

Winter

- GIS 332 - Python for Geospatial Analysis Credit Hours: 3
- MATH 327 - Discrete Mathematics Credit Hours: 4
- MIS 334 - Business Analytics Credit Hours: 4

- PHIL 331 - Ethics in the Professions Credit Hours: 3
  or
- PHIL 342 - Business Ethics Credit Hours: 3

- STAT 496 - Senior Project II Credit Hours: 2

Spring

- CST 475 - Big-Data Analysis Credit Hours: 3
- STAT 405 - Advanced Methods in Data Science Credit Hours: 4
- STAT 467 - Spatial Statistics Credit Hours: 4
- STAT 497 - Senior Project III Credit Hours: 2

- WRI 327 - Advanced Tech Writing Credit Hours: 3
  or
- WRI 345 - Science Writing Credit Hours: 3
  or
- WRI 350 - Documentation Develop Credit Hours: 3

Total for a B.S. in Data Science 180 Credit Hours

Communication Department

Franny Howes, *Department Chair*

Professors: K. Brown, M. Schnackenberg
Associate Professors: A. Fultz, F. Howes, A. Lancaster, K. Lundgren
Assistant Professors: V. Crooks, E. Grimshaw, R. Richards

Instructors: A. McCracken, M. Scheidegger

Degrees Offered

- Bachelor of Science in Communication Studies
- Bachelor of Science in Professional Writing

Minors Offered

- Human Interaction
- Professional Writing and Technical Communication

Certificate Offered

- Dispute Resolution

Communication Studies

The Bachelor of Science in Communication Studies allows students flexibility in designing a program that fits their life and career goals. Students choose core courses and elective from areas such as technical, organizational, and interpersonal communication. In addition, students build a career foundation by completing a *focused sequence of electives.*

Program Learning Outcomes

Upon graduating, Communication Studies graduates should be able to:

1. Demonstrate critical and innovative thinking.
2. Display competence in oral, written, and visual communication.
3. Apply communication theories.
4. Understand opportunities in the field of communication.
5. Use current technology related to the communication field.

6. Respond effectively to cultural communication differences.
7. Communicate ethically.
8. Demonstrate positive group communication exchanges.

Career Opportunities

The Communications Studies program prepares students for careers in areas such as organizational communication, new communication technologies, education, human resources, law, speech language pathology, public relations, sales, and dispute resolution; it also prepares students for graduate-level study.

Professional Writing

The Professional Writing (PWR) professions serve content areas and technical fields. Housed in the Department of Communication, the PWR B.S. degree program includes core courses in theory and practice of writing and style, in addition to electives in digital text creation, interactive media, management, mathematics, communication, and health sciences. Students choose one of three emphases: Scientific and Technical Writing, Digital Media, or Writing in Organizations.

The PWR program begins with a foundation of writing and style, along with communication theories and application. Graduates will gain competence in the domains of visual and text creation, audience analysis, rhetorical theory, research methods, statistics, and group and team communication. The applied content includes large project creation and management, portfolio work, digital media production, and broad applications of communication skills. The program is designed to integrate written skills with technical knowledge, and courses in technical specialties are required. This program is interdisciplinary and expects students to create a curriculum that matches a specific career path.

Program Learning Outcomes

Upon graduating, Professional Writing graduates should be able to:

1. Design and create documents appropriate for professional and consumer audiences using a variety of industry-standard tools
2. Use accepted rhetorical, linguistic and design theories to craft user- and reader-centered documents
3. Demonstrate professionally-appropriate practice in working with clients/stakeholders and teammates
4. Demonstrate professionally-appropriate ethical reasoning, including awareness intellectual property in the creation and management of documents
5. Analyze their position within the fields of publishing, technical communication, professional writing, and allied disciplines.
6. Manage the production of complex, large-scale projects and their related documentation

Career Opportunities

Professional writers use their advanced written communication skills to synthesize information and span boundaries between technical experts, decision-makers, and the public. They work in a broad range of settings, including the public sector, high tech corporations, entertainment, education, design firms, and more.

General Education Courses

To ensure that Oregon Tech's graduates are skilled communicators, the Communication Department provides writing, speech, and communication courses to satisfy general education requirements. Students in other majors should consult the general education and degree requirements in their major departments.

Student Preparation

All students who plan to study at Oregon Tech should enroll in writing and speech classes during their high school years to better benefit from the university's communication courses. Students applying to the Communication Studies Program should have especially strong reading and writing skills. It is important to have a well-rounded college preparation background, including courses in math, sciences, and general education.

Communication Studies, BS

Degree Requirements

The Bachelor of Science in Communication Studies requires 188 credits. All major courses, general education communication courses, and focused sequence of electives courses must be completed with a grade of "C" or higher.

Curriculum

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- COM 104 - Intro to the Communication Studies Major Credit Hours: 3
- COM 115 - Intro to Mass Communication Credit Hours: 3
- COM 135 - Communication Software Credit Hours: 3 [a]
- COM 218Z - Interpersonal Communication Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

Winter

- COM 105 - Intro to Communication Theory Credit Hours: 3
- COM 205 - Intercultural Comm Credit Hours: 3
- Social Science Elective Credit Hours: 3
- Social Science Elective Credit Hours: 3
- Focused Sequence Elective Credit Hours: 3

Spring

- ART 215 - Design Arts and Aesthetics Credit Hours: 3
- COM 106 - Introduction to Comm Research Credit Hours: 3
- COM 109 - Intro to Communication Tech Credit Hours: 3
- COM 111Z - Public Speaking Credit Hours: 4
- Social Science Elective Credit Hours: 3

Sophomore Year

Fall

- COM 216 - Essen of Grammar & Punctuation Credit Hours: 3
- COM 326 - Communication Research Credit Hours: 3
- SPE 321 - Small Group/Team Comm Credit Hours: 3

- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4

- Open Elective Credit Hours: 3

Winter

- COM 237 - Intro to Visual Communication Credit Hours: 3
- COM 248 - Digital Media Production Credit Hours: 3
- JOUR 211 - Intro to Journalism Credit Hours: 3
- Focused Sequence Elective Credit Hours: 3
- MATH Any for which MATH 100 is the pre-req Credit Hours: 4

Spring

- COM 255 - Communication Ethics Credit Hours: 3
- COM 276 - Democracy and Media Credit Hours: 3
- Business Elective Credit Hours: 3
- Focused Sequence Elective Credit Hours: 3
- Lab Science/Math Elective Credit Hours: 4

Junior Year

Fall

- COM 301 - Rhetorical Theory & Application Credit Hours: 3
  or
- COM 325 - Gender and Communication Credit Hours: 3
- Focused Sequence Elective (WRI or PWR) Credit Hours: 3
- Focused Sequence Elective Credit Hours: 3
- Focused Sequence Elective Upper Division Credit Hours: 3

Winter

- COM 345 - Organization Comm I Credit Hours: 3
- SPE 314 - Argumentation Credit Hours: 3
- Open Elective Upper Division Credit Hours: 3
- Focused Sequence Elective Upper Division Credit Hours: 3
- Focused Sequence Elective Credit Hours: 3

Spring

- COM 347 - Negotiation & Conflict Resol'n Credit Hours: 3
- COM 358 - Communication and the Law Credit Hours: 3
- Focused Sequence Elective Upper Division Credit Hours: 3
- Humanities Elective Credit Hours: 3
- Writing Elective Upper Division Credit Hours: 3

Senior Year

Fall

- COM 309 - Communication Tech in Use Credit Hours: 3
- COM 420 - Externship Credit Hours: 15 [b]
- Humanities Elective Upper Division Credit Hours: 3
- Open Elective Credit Hours: 3
- Social Science Elective Upper Division Credit Hours: 3

Winter

- COM 420 - Externship Credit Hours: 15 [b]
- Focused Sequence Elective Upper Division Credit Hours: 3
- Focused Sequence Elective Upper Division Credit Hours: 3
- Laboratory Science Elective Credit Hours: 4

Spring

- COM 420 - Externship Credit Hours: 15 [b]
- COM 424 - Capstone Course Credit Hours: 3
- Focused Sequence Elective Upper Division Credit Hours: 3
- Lab Science/Math Elective Credit Hours: 4

Notes:

[a]MIS 102 may be substituted for COM 135

[b] There is no guarantee of externships for Communication Studies majors. The best externship experiences are often those identified and arranged by students. Extern credits vary each term but 12 credits are required to complete the degree.

Total for a B.S. in Communication Studies: 188 Credit Hours

Dispute Resolution, Certificate

The Dispute Resolution Certificate provides students with a thorough foundation of communication courses related to dispute resolution. The program culminates in specialized courses: negotiation, facilitation, and mediation, giving students expertise in the field. A practicum in mediation offers practical experience in community mediation and guarantees competence of students completing the certificate. This certificate provides students with both the theoretical background and the practical experience to effectively resolve conflicts in a variety of contexts.

Prerequisite or Corequisite Classes

- COM 111Z - Public Speaking Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
- WRI 122Z - Composition II Credit Hours: 4

Program Courses

- COM 205 - Intercultural Comm Credit Hours: 3
- COM 218Z - Interpersonal Communication Credit Hours: 4
- COM 226 - Nonverbal Communication Credit Hours: 3
- COM 345 - Organization Comm I Credit Hours: 3
- COM 347 - Negotiation & Conflict Resol'n Credit Hours: 3
- COM 348 - Facilitation Credit Hours: 3
- COM 425 - Mediation Credit Hours: 3
- COM 426 - Mediation Practicum Credit Hours: 3
- SPE 321 - Small Group/Team Comm Credit Hours: 3

Health Communication, Certificate

The Department of Communication and the Office of Online Learning offers an 18 Credit Online Certificate in Health Communication. This certificate is designed to be offered as a stand-alone Extended Education Certificate.

COM 346: Health Communication must be taken. 6 credits must be taken from the 100 and 200 Level Elective list. At least 6 credits must be taken from the 300 and 400 Level Elective list. At least one of the introductory courses must be taken as the first course in the certificate sequence but students may take both introductory courses if they wish. If a student takes both introductory courses one of the courses will count towards the 6 required credits from the 100 and 200 Elective Courses. **Students must complete 18 credits to complete the certificate.**

Required Courses

- COM 218Z - Interpersonal Communication Credit Hours: 4
- COM 205 - Intercultural Comm Credit Hours: 3

Required Capstone Course

To be completed after at least 9 COM credits.

- COM 346 - Health Communication Credit Hours: 3

100 Level Elective Course

- COM 111Z - Public Speaking Credit Hours: 4

200 Level Elective Courses

- BIO 200 - Medical Terminology Credit Hours: 2
- SOC 205 - Current Health Issues Credit Hours: 3
- SOC 225 - Medical Sociology Credit Hours: 3

300 Level Elective Courses

- COM 320 - Advanced Intercultural Comm Credit Hours: 3
- COM 345 - Organization Comm I Credit Hours: 3
- BUS 313 - Health Care Systems & Policy Credit Hours: 3
- PWR 306 - Writing for the Health Professions Credit Hours: 3
- SPE 321 - Small Group/Team Comm Credit Hours: 3

Human Interaction Minor

The Human Interaction Minor supplements Oregon Tech technical and applied science degrees and provides advanced training in interaction skills. The minor offers courses in the analysis and practice of human interaction in a variety of contexts. The minor focuses on helping students to gain competency in building relationships, dealing with difference and managing conflict. Students who have performed well in general education communication courses are encouraged to enroll in this minor. For further information on enrollment, contact the Communication Department curriculum coordinator.

Career Opportunities

The Human Interaction minor enhances students' employability and career flexibility. Employers in many industries seek employees who demonstrate competent interaction on multi-disciplinary teams, communicate in many (including international) contexts, understand and resolve conflict in the workplace and create effective communication in diverse settings.

Requirements of Minor

- SPE 321 - Small Group/Team Comm Credit Hours: 3
- COM 205 - Intercultural Comm Credit Hours: 3
- COM 218Z - Interpersonal Communication Credit Hours: 4

In addition, students will select THREE from the following list of courses:

- COM 336 - Nonverbal Communication Credit Hours: 3
- COM 325 - Gender and Communication Credit Hours: 3
- COM 345 - Organization Comm I Credit Hours: 3
- COM 346 - Health Communication Credit Hours: 3
- COM 347 - Negotiation & Conflict Resol'n Credit Hours: 3
- COM 446 - Communication & Leadership Credit Hours: 3

Professional Writing and Technical Communication Minor

The Professional Writing and Technical Communication Minor supplements Oregon Tech technical degrees and provides advanced training and experience in communication skills. The minor offers specialized communication courses in such varied areas as proposal and grant writing, documentation development, and technical editing.

Students who have performed above-average work in their lower-division communication courses are encouraged to enroll in the program. For further information on enrollment, contact any Communication Department faculty member.

Career Opportunities

The Professional Writing and Technical Communication Minor will enhance students' flexibility as their careers develop. Employers in private industry, governmental agencies, and research facilities seek a unique combination of skills. First, employers know that the major coursework at Oregon Tech prepares students well. Second, the Professional Writing and Technical Communication Minor courses build skills in project development, manual writing and editing, computer-aided writing and publishing, oral presentations, and interviewing skills that complement technical education. Even if students choose not to work as technical writers or editors, the Professional Writing and Technical Communication Minor may increase job opportunities and professional advancement.

Requirements of the Minor

Students take one required core course, an upper-division WRI course from an approved list, and four electives from the list below. Students must earn a "C" or better in all courses to complete the minor.

Required Courses

Students take WRI 227Z and one core option from the list below.

- WRI 227Z - Technical Writing Credit Hours: 4
  or
- WRI 122Z - Composition II Credit Hours: 4
- WRI 327 - Advanced Tech Writing Credit Hours: 3
  or
- WRI 328 - Style Credit Hours: 3
  or
- WRI 345 - Science Writing Credit Hours: 3
  or
- WRI 350 - Documentation Develop Credit Hours: 3
  or
- WRI 410 - Proposal & Grant Writing Credit Hours: 3

Elective Courses

Students take four elective from the following list. At least two should be upper division.

- COM 301 - Rhetorical Theory & Application Credit Hours: 3
- COM 365 - Electronic Comm & Society Credit Hours: 3
- JOUR 211 - Intro to Journalism Credit Hours: 3
- PWR 101 - Introduction to Professional Writing Credit Hours: 3
- PWR 102 - Introduction to Web Authoring Credit Hours: 3
- PWR 206 - Social Media Credit Hours: 3
- PWR 215 - Writing in the Public Interest Credit Hours: 3
- PWR 220 - Writing for Interactive Media Credit Hours: 3
- PWR 306 - Writing for the Health Professions Credit Hours: 3
- PWR 330 - User Research Credit Hours: 3
- PWR 355 - Project Management for Writers Credit Hours: 3
- WRI 328 - Style Credit Hours: 3
- WRI 345 - Science Writing Credit Hours: 3
- WRI 410 - Proposal & Grant Writing Credit Hours: 3

- WRI 415 - Technical Editing Credit Hours: 3
- WRI 420 - Document Design Credit Hours: 3

Professional Writing, BS

Curriculum

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- COM 115 - Intro to Mass Communication Credit Hours: 3
- COM 135 - Communication Software Credit Hours: 3 [a]

- MATH 111Z - Precalculus I: Functions Credit Hours: 4
  or
- STAT 243Z - Elementary Statistics I Credit Hours: 4

- PWR 101 - Introduction to Professional Writing Credit Hours: 3
- WRI 121Z - Composition I Credit Hours: 4

Winter

- JOUR 211 - Intro to Journalism Credit Hours: 3
- Humanities Elective Credit Hours: 3
- Social Science Elective Credit Hours: 3
- Technical Elective Credit Hours: 3

Spring

- ART 215 - Design Arts and Aesthetics Credit Hours: 3
  or
- ART 226 - Digital Photography Credit Hours: 3

- COM 109 - Intro to Communication Tech Credit Hours: 3
- PWR 102 - Introduction to Web Authoring Credit Hours: 3
- COM 111Z - Public Speaking Credit Hours: 4
- Technical Elective Credit Hours: 3

Sophomore Year

Fall

- COM 216 - Essen of Grammar & Punctuation Credit Hours: 3

- COM 256 - Public Relations Credit Hours: 3
  or
- PWR 215 - Writing in the Public Interest Credit Hours: 3

- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4

- Program Elective Credit Hours: 3
- Emphasis Elective Credit Hours: 3

Winter

- COM 237 - Intro to Visual Communication Credit Hours: 3
- COM 248 - Digital Media Production Credit Hours: 3
- PWR 330 - User Research Credit Hours: 3
- Humanities Elective Credit Hours: 3
- Emphasis Elective Credit Hours: 3

Spring

- COM 218Z - Interpersonal Communication Credit Hours: 4
- COM 255 - Communication Ethics Credit Hours: 3
- WRI 328 - Style Credit Hours: 3
- Technical Elective Credit Hours: 3
- Lab Science Elective Credit Hours: 4

Junior Year*

Fall

- COM 301 - Rhetorical Theory & Application Credit Hours: 3
  or
- SPE 321 - Small Group/Team Comm Credit Hours: 3
- WRI 420 - Document Design Credit Hours: 3
- Social Science Elective Credit Hours: 3
- Lab Science Elective Credit Hours: 4

Winter

- PWR 355 - Project Management for Writers Credit Hours: 3
- SPE 314 - Argumentation Credit Hours: 3
- WRI 415 - Technical Editing Credit Hours: 3
- Social Science Elective Credit Hours: 3
- Technical Elective Credit Hours: 3

Spring

- COM 358 - Communication and the Law Credit Hours: 3
- WRI 410 - Proposal & Grant Writing Credit Hours: 3
- WRI 325 - Advanced Composition Credit Hours: 3
- Emphasis Elective Credit Hours: 3
- Technical Elective Credit Hours: 3

Senior Year

Fall

- COM 345 - Organization Comm I Credit Hours: 3
- PWR 490 - Portfolio Development Credit Hours: (Variable Credit 2-3)
- PWR 499 - Internship in Professional Writing Credit Hours: (Variable Credit to 9 credits)
- Emphasis Elective Credit Hours: 3
- Science Elective Credit Hours: 4

Winter

- PWR 499 - Internship in Professional Writing Credit Hours: (Variable Credit to 9 credits)
- PWR Elective Credit Hours: 3
- Technical Elective Credit Hours: 3
- Upper Division COM/WRI Elective Credit Hours: 3
- Emphasis Elective Credit Hours: 3

Spring

- COM 424 - Capstone Course Credit Hours: 3
- PWR 499 - Internship in Professional Writing Credit Hours: (Variable Credit to 9 credits)
- Upper Division Emphasis Elective Credit Hours: 3
- Social Science Elective Credit Hours: 3
- Upper Division Technical Elective Credit Hours: 3

Total for a B.S. in Professional Writing: 184 Credit Hours

Note:

[a] MIS 101, MIS 102, and MIS 103 may be substituted for COM 135

Emphasis Courses (18 Credits Minimum)

Students will select from one of the following Emphasis areas in order to satisfy the emphasis elective and technical elective requirements.

Digital Media Emphasis

(beyond the required courses in the program)

- COM 115 - Intro to Mass Communication Credit Hours: 3
- COM 207 - Seminar Credit Hours: 6 International Media Seminar: Paris

- COM 215 - Creativity in Comm Credit Hours: 3
- COM 248 - Digital Media Production Credit Hours: 3
- COM 309 - Communication Tech in Use Credit Hours: 3
- COM 365 - Electronic Comm & Society Credit Hours: 3
- HUM 335 - Video Game Studies Credit Hours: 3
- HUM 345 - Digital Culture and Society Credit Hours: 3
- PHIL 205 - Introduction to Logic Credit Hours: 3
- PWR 206 - Social Media Credit Hours: 3
- PWR 220 - Writing for Interactive Media Credit Hours: 3
- WRI 225 - Writing Nonfiction Credit Hours: 3
- WRI 305 - Writ for the Marketplace Credit Hours: 3

Scientific and Technical Emphasis

(beyond the required courses in the program)

- BIO 200 - Medical Terminology Credit Hours: 2
- BIO 209 - Current Research Tpc Med Sci I Credit Hours: 1
- COM 347 - Negotiation & Conflict Resol'n Credit Hours: 3
- PHIL 205 - Introduction to Logic Credit Hours: 3
- PHIL 305 - Medical Ethics Credit Hours: 3
- PHIL 331 - Ethics in the Professions Credit Hours: 3
- PWR 306 - Writing for the Health Professions Credit Hours: 3
- PWR 320 - Structured Authoring Credit Hours: 3
- WRI 225 - Writing Nonfiction Credit Hours: 3
- WRI 327 - Advanced Tech Writing Credit Hours: 3
- WRI 345 - Science Writing Credit Hours: 3
- WRI 350 - Documentation Develop Credit Hours: 3

Writing in Organizations Emphasis

(beyond the required courses in the program)

- BUS 313 - Health Care Systems & Policy Credit Hours: 3
- COM 347 - Negotiation & Conflict Resol'n Credit Hours: 3
- COM 437 - Comm Training & Devpmt Credit Hours: 3
- COM 445 - Organiz'l Communication II Credit Hours: 3
- COM 446 - Communication & Leadership Credit Hours: 3
- PHIL 331 - Ethics in the Professions Credit Hours: 3
- PSY 347 - Organizational Behavior Credit Hours: 3
- PWR 206 - Social Media Credit Hours: 3
- PWR 215 - Writing in the Public Interest Credit Hours: 3
- PWR 306 - Writing for the Health Professions Credit Hours: 3
- PWR 320 - Structured Authoring Credit Hours: 3
- WRI 327 - Advanced Tech Writing Credit Hours: 3

Proposal & Grant Writing, Certificate

The Online Certificate in Proposal & Grant Writing includes core writing courses and additional focus courses in proposal and grant writing and interdisciplinary courses in Spreadsheet Software Lab; Business Management/Business Marketing; Business Ethics/Ethics in the Professions.

Successful completion with a grade of "C" or better in 11 credit hours of core writing classes (WRI 121Z, WRI 227Z, **and** WRI 327 **or** WRI 350) and in 7 credit hours of focus classes (WRI 410 **and** MIS 102; **and** BUS 215 **or** BUS 223; **and** PHIL 342 **or** PHIL 331). **Students must complete 18 credits to receive the certificate.**

Core Required Courses

- WRI 121Z - Composition I Credit Hours: 4
- WRI 227Z - Technical Writing Credit Hours: 4
- WRI 327 - Advanced Tech Writing Credit Hours: 3
  or
- WRI 350 - Documentation Develop Credit Hours: 3

Focus Courses

At least 7 credits from the focus classes list.

- WRI 410 - Proposal & Grant Writing Credit Hours: 3
- MIS 102 - Spreadsheet Software Lab Credit Hours: 1
  Choose from the course offerings below to complete your additional credits:
- BUS 215 - Principles of Management Credit Hours: 3
- BUS 223 - Marketing I Credit Hours: 3

Technical & Medical Writing, Certificate

The Online Certificate in Technical & Medical Writing includes core writing courses and additional focus courses in Health Communication/Writing in the Health Professions and interdisciplinary courses in Medical Terminology; Current Health Issues/Medical Sociology/Health Care Systems & Policy.

Successful completion with a grade of "C" or better in 11 credit hours of core writing classes (WRI 121Z, WRI 227Z, **and** WRI 327 **or** WRI 350) and in 8 credit hours of focus classes (COM 346 **or** PWR 306; **and** BIO 200; **and** SOC 205 **or** SOC 225 **or** BUS 313). **Students must complete 18 credits to receive the certificate.**

Core Required Courses

- WRI 121Z - Composition I Credit Hours: 4
- WRI 227Z - Technical Writing Credit Hours: 4
- WRI 327 - Advanced Tech Writing Credit Hours: 3
  or
- WRI 350 - Documentation Develop Credit Hours: 3

Focus Courses

- BIO 200 - Medical Terminology Credit Hours: 2
- COM 346 - Health Communication Credit Hours: 3
  or
- PWR 306 - Writing for the Health Professions Credit Hours: 3

Choose from the course offerings below to complete your certificate:

- SOC 205 - Current Health Issues Credit Hours: 3
- SOC 225 - Medical Sociology Credit Hours: 3
- BUS 313 - Health Care Systems & Policy Credit Hours: 3

UX Writing, Certificate

The Online Certificate in UX Writing includes core writing courses and additional focus courses in User Experience Research and interdisciplinary courses in Word Processing Software Lab/Spreadsheet Software Lab; Design Thinking/Document Design; Business Management, and Graphic Design for Business.

Successful completion with a grade of "C" or better in 11 credit hours of core writing classes (WRI 121Z, WRI 227Z, **and** WRI 327 **or** WRI 350) and in 7 to 9 credit hours of focus classes (PWR 330 **and** MIS 102; **and** ART 315 **or** WRI 420; **OR** BUS 215 **and** BUS 256). **Students must complete 18 credits to complete the certificate.**

Core Required Courses

- WRI 121Z - Composition I Credit Hours: 4
- WRI 227Z - Technical Writing Credit Hours: 4
- WRI 327 - Advanced Tech Writing Credit Hours: 3
  or
- WRI 350 - Documentation Develop Credit Hours: 3

Focus Courses

- PWR 330 - User Research Credit Hours: 3
- MIS 102 - Spreadsheet Software Lab Credit Hours: 1
  Choose from the course offerings below to complete your additional 7-9 credits:
- ART 315 - Design Thinking or WRI 420 - Document Design Credit Hours: 3
- BUS 215 - Principles of Management Credit Hours: 3
- BUS 256 - Graphic Design for Business Credit Hours: 3

Dental Hygiene Department

Paula Russell, *Department Chair/Online Director, Klamath Falls*

Professor: P. Russell, P. Hendrix
Assistant Professors: K. Beaty, J. Bopp, J. Luebbers, D. Swigart
Instructors: C. Botsch, S. Neely, E. Gustafson-Plummer, A. Rollins

Degrees Offered

- Bachelor of Science in Dental Hygiene (entry level program)
- Bachelor of Science in Dental Hygiene, RDH to BSDH Online Degree Completion (*for licensed dental hygienists who have already graduated from an entry level AAS program*)

The Bachelor of Science in Dental Hygiene is offered on the Oregon Tech campus in Klamath Falls, on the Chemeketa Community College campus in Salem, Oregon, and online for licensed professional dental hygienists completing their Bachelor's degree.

Accreditation

The Dental Hygiene Program is accredited by the Commission on Dental Accreditation (CODA), a national Commission that is responsible for the professional accreditation of dental schools, dental hygiene programs, and other programs related to dentistry. Oregon Tech's Dental Hygiene Program's accreditation status is "approval without reporting requirements" which means it meets all of the "Accreditation Standards for Dental Hygiene Education Programs".

Career Opportunities

Dental hygienists are most commonly employed in private or corporate dental practices and provide oral health preventive and therapeutic services. Graduates are prepared for licensure as a dental hygienist and graduate with the qualifications to obtain permits and endorsements for expanded practice in such settings as nursing homes, schools, and hospitals. In addition to clinical practice, dental hygienists have careers in the fields of education, research, administration, and public health.

Program Goals and Purpose

The Dental Hygiene Program supports developing Oregon Tech's Institutional Student Learning Outcomes through its Program Goals and the curriculum design based on professional standards developed by experts in the field. The Bachelor of Science in Dental Hygiene program prepares students for entry into the dental hygiene profession and additional careers such as public health, administration, education, research, and marketing. The graduate will be prepared to enter master's degree programs in dental hygiene and related programs.

Upon graduation, students are prepared for entry into the dental hygiene profession and are eligible for state and national exams leading to licensure as a registered dental hygienist, including all expanded functions allowed within the scope of practice for a dental hygienist. Program educational objectives are:

- Provide the dental hygiene student the opportunity to gain the necessary knowledge, skills, and values to enter the registered practice of dental hygiene.
- Prepare the student to sit for the National Board Dental Hygiene Examination.
- Prepare the student to take clinical board examinations in dental hygiene, anesthesia, and restorative functions.

Program Mission Statement

The Oregon Institute of Technology Dental Hygiene Program provides a humanistic learning environment that fosters student and graduate success through respect and professionalism, and by encouraging innovation and critical thinking. Its mission is to prepare students to become healthcare professionals who serve diverse populations in multiple roles including leadership, clinical and public health, research, education, and entrepreneurship. Oregon Tech Dental Hygiene graduates gain experience with project-based learning, community service, applied research emphasizing evidence-based practices; and are empowered to become life-long learners.

Program Learning Outcomes:

The dental hygiene graduate will be competent in:

1. Communication: The dental hygiene graduate will be competent in communication and collaborating with other members of the health care team to support comprehensive patient care

2. Critical Thinking and Problem Solving: The dental hygiene graduate will be competent in critical thinking and problem solving related to comprehensive care and management of patients

3. Professionalism, Ethical Practice: The dental hygiene graduate will be competent in applying ethical, legal, and regulatory concepts in the provision and/or support of oral health care services

4. Lifelong Learning: The dental hygiene graduate will demonstrate competent knowledge and self-assessment skills necessary for life-long learning

5. Provision of Oral Health Care: The dental hygiene graduate will be competent in providing the dental hygiene process of care for a wide range of patient profiles and all types of periodontal diseases

6. Community Health: The dental hygiene graduate will be competent in assessing, planning, implementing, and evaluating community based oral health programs including health promotion and disease prevention activities

7. Disease Prevention: The dental hygiene graduate will evaluate factors that can be used to promote patient adherence to disease prevention and/or health maintenance strategies.

8. Evaluating Research: The dental hygiene graduate will be competent in evaluating current scientific literature to incorporate evidence-based decisions into dental hygiene practice.

Professional Development & Membership

Faculty and students are expected to maintain membership in the ADHA professional organization, attend regularly scheduled SADHA meetings, and to participate in professional development, such as local and regional conferences that lead to lifelong learning as defined in the Program Outcomes. **Students are required to join the student chapter of the American Dental Hygienists Association**. There is an annual fee for membership, and this is outlined in the anticipated expenses provided to students upon entry into the Dental Hygiene program.

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The Dental Hygiene Program supports developing Oregon Tech's Institutional Student Learning Outcomes through its Program Goals and the curriculum design based on professional standards developed by experts in the field. The Bachelor of Science in Dental Hygiene program prepares students for entry into the dental hygiene profession and additional careers such as public health, administration, education, research, and marketing. The graduate will be prepared to enter master's degree programs in dental hygiene and related programs.

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- Prepare the student to sit for the National Board Dental Hygiene Examination.
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Program Mission Statement

The Oregon Institute of Technology Dental Hygiene Program provides a humanistic learning environment that fosters student and graduate success through respect and professionalism, and by encouraging innovation and critical thinking. Its mission is to prepare students to become healthcare professionals who serve diverse populations in multiple roles including leadership, clinical and public health, research, education, and entrepreneurship. Oregon Tech Dental Hygiene graduates gain experience with project-based learning, community service, applied research emphasizing evidence-based practices; and are empowered to become life-long learners.

Program Learning Outcomes:

The dental hygiene graduate will be competent in:

1. Interprofessional Collaboration/Communication: The dental hygiene graduate will be competent in communication and collaborating with other members of the health care team to support comprehensive patient care.
2. Critical Thinking: The dental hygiene graduate will be competent in critical thinking and problem solving related to comprehensive care and management of patients.
3. Professionalism, Ethical Practice, Evidence Based Decision Making: The dental hygiene graduate will be competent in the application of ethical reasoning, legal, and regulatory concepts in the provision of care, and evidence-based support of oral health care services.
4. Lifelong Learning: The dental hygiene graduate will demonstrate competent knowledge and self-assessment skills necessary for life-long learning.
5. Provision of Oral Health Care: The dental hygiene graduate will be competent in providing the dental hygiene process of care for a wide range of patient profiles and all classifications of periodontal diseases.
6. Community Health: The dental hygiene graduate will be competent in assessing, planning, implementing, and evaluating community based oral health programs.
7. Disease Prevention: The dental hygiene graduate will evaluate factors that can be used to promote patient adherence to disease prevention and/or health maintenance strategies.
8. Evaluating Research: The dental hygiene graduate will be competent in evaluating current scientific literature to incorporate evidence-based decisions into dental hygiene practice.

Student Preparation

A strong science background is essential for individuals interested in any health sciences profession. Students considering a career in dental hygiene should take a college-bound course of study in high school that includes algebra, chemistry, and microbiology and human anatomy and physiology.

Professional Dental Hygiene Competencies

The professional standards of the profession have been published by the American Dental Hygienists Association and by the American Dental Education Association. Students are expected to meet these standards to graduate. Students must show competence by the standards provided by the Commission on Dental Accreditation.

Competency-Based Curriculum

Dental Hygiene academic and clinical courses are both graded and **competency-based,** which means that the essential skills, knowledge, and attitudes expected of students at a given point in the curriculum are specified with the conditions under which students are expected to perform. The criteria for evaluation are also defined. This includes a process of learning that develops in stages.

The expected level of development at any point in the curriculum is defined in the Program Competency Timeline. Competency assessments are Pass/Fail. Grades are only earned once the required minimum level of performance has been reached. All Competency assessments are required and MUST be passed at the appropriate level in order to continue in the program. They are benchmark assessments. A non-passing score will receive a zero grade and will

warrant an F in the overall course grade. The Competency Timeline is a list of benchmark expectations for when students are expected to develop certain skills has been developed for the entire professional curriculum. The Competency Timeline also defines the **graduation requirements** for clinical experiences.

Essential Functions/Technical Standards of a Dental Hygienist

In accordance with its professional and accreditation standards, the Dental Hygiene program has established technical standards as essential requirements. To be admitted and maintain enrollment, participate in, and successfully complete the professional program, a student must meet these non-academic standards of performance. *Essential Functions* are characteristics deemed necessary to become a professional, licensed, dental hygienist. They are evaluated continuously throughout the program in both clinical and didactic settings.

To be admitted to or continue in the Dental Hygiene Program a student must possess skills and abilities essential to perform as a dental hygienist. Students are required to perform dental hygiene services for patients in the clinical setting. The department is responsible for ensuring the safety of the patients, including completion of treatment within an acceptable amount of time and without significant regression of skills. With these considerations a dental hygiene student/candidate must be able to meet the following essential functions:

Physical Skills

Sit or stand; bend and reach while performing clinical procedures. Function in a structured environment for several hours. Demonstrate hand/eye coordination, manual dexterity, and tactile sensitivity necessary to manipulate a variety of instruments, materials, and equipment. Perform cardiopulmonary resuscitation and assist in emergency situations.

Sensory Skills

Read charts, records, small print, typed and handwritten notes. See with measurable depth perception and in low-light conditions. Distinguish color variations and discern shades of black and white. Hear and understand verbal directions. Discern sounds related to patient assessment and treatment. Distinguish smells of various drugs, solutions and materials used in healthcare settings. Feel subtle differences in surface textures. Recognize changes in patient status.

Cognitive Skills

Comprehend, analyze, and synthesize complex science and clinical findings. Apply prior learning to new situations. Concentrate on the task at hand amidst a variety of environmental distractions. Interpret patient findings, recognize anomalies, and make decisions which affect patient care. Use personal computers to complete assignments.

Communication Skills

Speak and write fluent English, including language comprehension skills that are essential for healthcare providers. Provide patients with clear instructions appropriate for their level of understanding. Write clear and legible chart notes. Organize thoughts and ideas into written essays and research papers. Understand, comprehend, and *effectively* communicate the English language with peers and patients; both in written and verbal formats at English Proficiency levels expected for healthcare providers.

Interpersonal Skills

Interact with individuals, small groups, and large audiences. Establish sufficient rapport and maintain appropriate boundaries to effectively relate to patients, colleagues, faculty, and staff. Always display a respectful attitude. Demonstrate concern and empathy for a diverse variety of patients. Address problems or questions to the appropriate person at the appropriate time.

Professional Skills

Present a professional appearance and maintain personal health. Maintain composure during stressful situations. Work both independently and as a team member. Organize tasks, set priorities, and manage projects. Maintain accuracy and

confidentiality of patient records. Comply with established policies, procedures, infection control standards, Oregon Tech student conduct code, ADHA code of ethics and the class code of conduct. Provide care to all patients regardless of age, race, ethnic origin, physical or mental status or other condition.

Inability to Meet Essential Functions and Technical Standards

It is critical that each student understands if she/he does not perform to the expected level of professionalism, or posesse the technical standards required in each category of the "essential functions" they risk being dismissed from the Program. Appropriate "Essential Functions of a Dental Hygienist" must be demonstrated, not only in the classroom and clinic, but in the entire surrounding area, anywhere on or off campus when representing the university or Program.

If a student has an essential functions violation, a conference will be called with the student and the faculty. The result of this meeting will be

- counseling with a recommendation to change behavior
- a grade reduction in the associated course
- and/or a recommendation for dismissal from the program.

Admissions Procedures

Any student who meets the general admissions requirements may enroll in Pre-Dental Hygiene courses (freshman year). Students must be selected to enter the professional program (sophomore-senior year) through a separate application process. A limited number of seats are available in the professional program courses (sophomore, junior, and senior years).

The application deadline is in late March of the year prior to enrollment. To be eligible for admission into the Dental Hygiene Program the following minimum eligibility requirements must be met:

1. Applicants must have on file with the Oregon Tech Office of Admissions an official *Application for Admission* to Oregon Tech, accompanied by a $50 non-refundable fee and official transcripts of each college or university attended. Admission to Oregon Tech is independent of admission to the Dental Hygiene Program. All applicants to Oregon Tech are admitted as pre-dental hygiene majors until accepted into the dental hygiene program.
2. Applicants must have successfully completed or be in progress of completing all freshmen pre-dental hygiene courses. Introduction to Dental Hygiene (DHE 100 online) must be taken through Oregon Tech. Prerequisite (freshman) science, writing, and speech courses must be completed by the end of spring term, except for BIO 233, which may be extended into the summer but must be successfully completed prior to program entry in the subsequent fall term. Students are encouraged to work ahead and take courses in the summer to help offset credit loads during their regular academic terms while in the program.
3. Applicants must have a minimum cumulative 2.75 GPA in previous college work.
4. Applicants must complete a *Dental Hygiene Application for Admission*, related forms, and application fee of $75 to the Dental Hygiene department. Detailed information and instructions can be found on the Oregon Tech Dental Hygiene Program web page, www.oit.edu/dentalhygiene/how-to-apply.

Professional Development & Membership

Faculty and students are expected to maintain membership in the ADHA professional organization, attend regularly scheduled SADHA meetings, and to participate in professional development, such as local and regional conferences that lead to lifelong learning as defined in the Program Outcomes. **Students are required to join the student chapter**

of the American Dental Hygienists Association. There is an annual fee for membership, and this is outlined in the anticipated expenses provided to students upon entry into the Dental Hygiene program.

Program Requirements

Dental hygiene students admitted to the Dental Hygiene Program (sophomore, junior, senior years) must purchase instruments, uniforms, and other supplies to be used during clinical practice and pay additional fees associated with dental hygiene courses. A background check, drug test, and proof of immunizations specific to healthcare workers are required prior to final admission into the professional program. Medical insurance coverage is required to be maintained throughout the program in case of exposure incidents.

Graduation Requirements

All courses listed in the curriculum for the catalog year a student begins a program must be fulfilled. Total credits required for graduation are: Bachelor of Science degree, 180. A minimum cumulative grade point average (GPA) of 2.0 is required for graduation. Students must maintain a grade of "C" or better in all Dental Hygiene required courses and demonstrate competency in all technical standards and Essential Functions of a Dental Hygienist to continue in the program.

Dental Hygiene, BS

Curriculum

The following are required courses and recommended terms for students attending on the Klamath Falls campus. Please visit www.oit.edu/dentalhygiene for transfer information from other Oregon colleges and for recommended course sequencing for those attending on the Chemeketa Community College campus. Courses marked as "approved elective" may be chosen from the list in the Degree Emphasis list.

Pre-Dental Hygiene

Freshman Year

Fall

- DHE 100 - Introduction to Dental Hygiene I Credit Hours: 2
- BIO 231 - Human Anatomy/Physiology I Credit Hours: 4
- SOC 204 - Intro to Sociology Credit Hours: 3
- CHE 101 - Intro to General Chemistry Credit Hours: 3
- CHE 104 - Intro to General Chemistry Lab Credit Hours: 1
- Psychology Elective Credit Hours: 3

Winter

- BIO 232 - Human Anatomy/Physiology II Credit Hours: 4
- BIO 205 - Nutrition Credit Hours: 3
- BIO 234 - Microbiology Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

Spring

- BIO 233 - Human Anatomy/Physiology III Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4
- STAT 243Z - Elementary Statistics I Credit Hours: 4

Professional Courses

Sophomore Year

Fall

- DH 221 - Clinical Prac & Seminar I Credit Hours: 4
- DH 225 - Head/Neck Anat, Histol, Embry Credit Hours: 3
- DH 240 - Prevention I Credit Hours: 3
- DH 266 - Dental Anatomy Credit Hours: 2
- Humanities Elective Credit Hours: 3

Winter

- DH 222 - Clinical Prac & Seminar II Credit Hours: 4
- DH 241 - Prevention II Credit Hours: 3
- DH 275 - Dental Ethics Credit Hours: 2
- DH 252 - Oral Radiology I Credit Hours: 3
- DH 244 - General and Oral Pathology Credit Hours: 3

Spring

- DH 223 - Clinical Prac & Seminar III Credit Hours: 3
- DH 242 - Prevention III Credit Hours: 3
- DH 253 - Oral Radiology II Credit Hours: 2
- DH 254 - Introduction to Periodontology Credit Hours: 2
- DH 267 - Emergency Procedures Credit Hours: 3
- DH 360 - Pharmacology for Dental Hygiene Credit Hours: 3

Junior Year

Fall

- DH 321 - Clinical Prac & Sem IV Credit Hours: 4
- DH 340 - Emerging Oral Health Topics Credit Hours: 3
- DH 354 - Periodontology Credit Hours: 3
- SPE 321 - Small Group/Team Comm Credit Hours: 3
- DH 380 - Community Health I Credit Hours: 1
- Humanities Elective Credit: 3

Winter

- DH 322 - Clinical Prac & Sem V Credit Hours: 3
- DH 341 - Vulnerable Populations Credit Hours: 3
- DH 381 - Comm Dentl Hlth II Credit Hours: 2
- DH 351 - Pain Management I Credit Hours: 3
- Humanities Elective Credit: 3

Spring

- DH 323 - Clinical Prac & Sem VI Credit Hours: 5
- DH 344 - Adv General & Oral Pathology Credit Hours: 3
- DH 382 - Comm Dentl Hlth III Credit Hours: 2
- DH 352 - Pain Management II Credit Hours: 2
- DH 370 - International Extrnshp I Credit Hours: 1

Senior Year

Summer

- DH 421 - Clinical Prac & Sem VII Credit Hours: 4
- DH 461 - Restorative Dentistry I Credit Hours: 3
- Program or elective course (from approved list): 3
- Program or elective course (from approved list): 3
- *optional* DH 371 - International Extrnshp II Credit Hours: 1

Fall

- DH 422 - Clinical Prac & Sem VIII Credit Hours: 5
- DH 462 - Restorative Dentistry II Credit Hours: 3
- Program or elective course (from approved list): 3
- Communications Elective Credit Hours 3
- Social Science Elective Credit Hours: 3
- *optional* DH 372 - International Extrnshp III Credit Hours: 1

Winter

- DH 423 - Clinical Prac & Sem IX Credit Hours: 5
- *optional* DH 463 - Restorative Dentistry III Credit Hours: 2
- Program or elective course (from approved list): 3
- Social Science Elective Credit Hours: 3

Required DH Program Courses

Program courses required, 9 credits offered multiple terms

- DH 475 - EBDM in Healthcare Credit Hours: 3
- DH 454 - Dental Prac Mgmt Credit Hours: 3
- AHED 450 - Instructional Methods Credit Hours: 3

Total for a B.S. in Dental Hygiene 180 Credit Hours

Note: All transfer students must abide by the Dental Hygiene Transfer Guide posted on the Oregon Tech Dental Hygiene web page

[a] Elective selected from an advisor approved list

Electives Approved by the Dental Hygiene Department

Must take 6 elective credits from this approved list.

Clinical Practice

- DH 465 - Independent Dental Hygiene Practice Credit Hours: 3
- BUS 313 - Health Care Systems & Policy Credit Hours: 3
- BUS 331 - Personal Finance Credit Hours: 3
- COM 205 - Intercultural Comm Credit Hours: 3
- DH 405 - Pharmacology Review for Dental Hygiene Credit Hours: 3
- PSY 347 - Organizational Behavior Credit Hours: 3
- PSG 246 - Sleep Disorders in Women Credit Hours: 3
- CSH 201 - Human Development and Sleep Health Credit Hours: 3
- CSH 220 - Sleep Disord & Co-Morbid Credit Hours: 3

Education

- AHED 460 - Fund of Distance Education Credit Hours: 3
- PSY 347 - Organizational Behavior Credit Hours: 3
- SOC 225 - Medical Sociology Credit Hours: 3
- DH 476 - Applied Research Concepts Credit Hours: 3
- ALH 565 - Population Health Issues for Allied Health Professionals Credit Hours: 3
- ALH 508 - Medical Ed. Theories & Methods Credit Hours: 3
- ALH 515 - Scientific Writing & Healthcare Credit Hours: 3
- ALH 535 - Assmt. Plan. Imp. and Eval. Credit Hours: 3
  **Masters degree coursework for MSAH, up to 9 credits; graduate tuition applies*

Management

- DH 465 - Independent Dental Hygiene Practice Credit Hours: 3
- BA 211Z - Principles of Financial Accounting Credit Hours: 4
- BA 213Z - Principles of Managerial Accounting Credit Hours: 4
- BUS 223 - Marketing I Credit Hours: 3
- BUS 226 - Business Law Credit Hours: 3
- BUS 308 - Prin of International Business Credit Hours: 3
- BUS 313 - Health Care Systems & Policy Credit Hours: 3
- BUS 317 - Health Care Management Credit Hours: 3
- BUS 337 - Prin of Health Care Marketing Credit Hours: 3
- BUS 349 - Human Resource Management I Credit Hours: 3
- PHIL 342 - Business Ethics Credit Hours: 3
- PSY 347 - Organizational Behavior Credit Hours: 3

Public Health

[a] Not currently offered online

- DH 370 - International Extrnshp I Credit Hours: 1
- DH 371 - International Extrnshp II Credit Hours: 1
- DH 372 - International Extrnshp III Credit Hours: 1
- DH 465 - Independent Dental Hygiene Practice Credit Hours: 3
- BUS 313 - Health Care Systems & Policy Credit Hours: 3
- COM 205 - Intercultural Comm Credit Hours: 3
- PSY 347 - Organizational Behavior Credit Hours: 3
- SOC 225 - Medical Sociology Credit Hours: 3
- SOC 325 - Global Population Health Credit Hours: 3
- SOC 335 - Hlth Inequal & Cult Competency Credit Hours: 3
- WRI 410 - Proposal & Grant Writing Credit Hours: 3
- DH 476 - Applied Research Concepts Credit Hours: 3
- WRI 510 - Grant Proposal Writing Credit Hours: 3

Dental Hygiene, RDH to BSDH Online Degree Completion, BS

This program offers dental hygienists who have earned an associate's degree the opportunity to complete a Bachelor of Science in Dental Hygiene. The degree is offered through Oregon Tech Online.

Dental hygienists who have graduated with an associate's degree from an accredited dental hygiene program may be eligible to apply to the bachelor's degree completion program. Oregon Tech will make every effort to give maximum consideration to the transfer work presented at time of application. Typically, most professional and related science requirements are accepted. Additional coursework may be necessary to meet Oregon Tech general education requirements and a minimum of 45 credit hours must be completed through Oregon Tech to satisfy residency requirements.

Graduation Requirements:

The following requirements must be met to earn a bachelor's degree in dental hygiene from Oregon Institute of Technology:

- Transfer your dental hygiene professional courses.
- Complete, or transfer, general education courses required for a bachelor's degree.
- Complete the bachelor's degree completion courses.
- Complete 60 credits of upper-division (300-400 level) coursework. (You will be awarded some upper-division credit for your transferred professional courses.)
- Complete at least 45 credits from Oregon Tech.
- Maintain a grade "C" or better in all courses.

Courses Granted for Licensure

- DHE 100 - Introduction to Dental Hygiene I Credit Hours: 2
- DH 221 - Clinical Prac & Seminar I Credit Hours: 4
- DH 222 - Clinical Prac & Seminar II Credit Hours: 4
- DH 223 - Clinical Prac & Seminar III Credit Hours: 3

- DH 225 - Head/Neck Anat, Histol, Embry Credit Hours: 3
- DH 240 - Prevention I Credit Hours: 3
- DH 241 - Prevention II Credit Hours: 3
- DH 242 - Prevention III Credit Hours: 3
- DH 244 - General and Oral Pathology Credit Hours: 3
- DH 252 - Oral Radiology I Credit Hours: 3
- DH 253 - Oral Radiology II Credit Hours: 2
- DH 254 - Introduction to Periodontology Credit Hours: 2
- DH 267 - Emergency Procedures Credit Hours: 3
- DH 275 - Dental Ethics Credit Hours: 2
- DH 321 - Clinical Prac & Sem IV Credit Hours: 4
- DH 322 - Clinical Prac & Sem V Credit Hours: 3
- DH 323 - Clinical Prac & Sem VI Credit Hours: 5
- DH 340 - Emerging Oral Health Topics Credit Hours: 3
- DH 341 - Vulnerable Populations Credit Hours: 3
- DH 344 - Adv General & Oral Pathology Credit Hours: 3
- DH 354 - Periodontology Credit Hours: 3
- DH 363 - Dental Materials Credit Hours: 3
- DH 266 - Dental Anatomy Credit Hours: 2
- DH 380 - Community Health I Credit Hours: 1
- DH 381 - Comm Dentl Hlth II Credit Hours: 2
- DH 421 - Clinical Prac & Sem VII Credit Hours: 4
- DH 422 - Clinical Prac & Sem VIII Credit Hours: 5
- DH 423 - Clinical Prac & Sem IX Credit Hours: 5

Completion Courses

[a] Credits may be granted for additional specialty licensure exams

- AHED 450 - Instructional Methods Credit Hours: 3
- DH 401 - Overview Advanced Dental Hyg Credit Hours: 3
- DH 454 - Dental Prac Mgmt Credit Hours: 3
- DH 470 - Community Program Planning I Credit Hours: 3
- DH 475 - EBDM in Healthcare Credit Hours: 3
- DH 351 - Pain Management I Credit Hours: 3
- DH 352 - Pain Management II Credit Hours: 2
- MATH 111Z - Precalculus I: Functions Credit Hours: 4 *(or higher)*
  or
- STAT 243Z - Elementary Statistics I Credit Hours: 4
- SPE 321 - Small Group/Team Comm Credit Hours: 3
  Communication Elective Credit Hours: 3
  Humanities Elective Credit Hours: 6
  Social Science Elective Credit Hours: 3
  Elective Credit Hours: 9

Additional Required General Education Courses

(Transfer or Oregon Tech)

- BIO 234 - Microbiology Credit Hours: 4
- BIO 205 - Nutrition Credit Hours: 3
- BIO 231 - Human Anatomy/Physiology I Credit Hours: 4
- BIO 232 - Human Anatomy/Physiology II Credit Hours: 4
- BIO 233 - Human Anatomy/Physiology III Credit Hours: 4
- CHE 101 - Intro to General Chemistry Credit Hours: 3
- CHE 104 - Intro to General Chemistry Lab Credit Hours: 1
- CHE 360 - Clinical Pharmacology/Hlth Prf Credit Hours: 3
- SOC 204 - Intro to Sociology Credit Hours: 3
- COM 111Z - Public Speaking Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4
  Humanities Elective Credit Hours: 3
  Social Science Elective Credit Hours: 6

Total for B.S. in Dental Hygiene Degree Completion-184 credit hours

Electives Approved by the Dental Hygiene Department

Must take 9 elective credits from this approved list.

Clinical Practice
DH 465 - Independent Dental Hygiene Practice Credit Hours: 3
BUS 313 - Health Care Systems & Policy Credit Hours: 3
BUS 331 - Personal Finance Credit Hours: 3
COM 205 - Intercultural Comm Credit Hours: 3
PSY 336 - Health Psychology I Credit Hours: 3
PSY 337 - Health Psychology II Credit Hours: 3
PSY 347 - Organizational Behavior Credit Hours: 3
DH 405 - Pharmacology Review for Dental Hygiene Credit Hours: 3
PSG 246 - Sleep Disorders in Women Credit Hours: 3
CSH 201 - Human Development and Sleep Health Credit Hours: 3
CSH 220 - Sleep Disord & Co-Morbid Credit Hours: 3

Education
AHED 460 - Fund of Distance Education Credit Hours: 3
PSY 347 - Organizational Behavior Credit Hours: 3
DH 476 - Applied Research Concepts Credit Hours: 3
SOC 225 - Medical Sociology Credit Hours: 3
ALH 565 - Population Health Issues for Allied Health Professionals Credit Hours: 3
ALH 508 - Medical Ed. Theories & Methods Credit Hours: 3
ALH 515 - Scientific Writing & Healthcare Credit Hours: 3
ALH 535 - Assmt. Plan. Imp. and Eval. Credit Hours: 3
**Masters degree coursework for MSAH, up to 9 credits; graduate tuition applies*

Management
DH 465 - Independent Dental Hygiene Practice Credit Hours: 3
ACC 201 - Prin of Accounting I Credit Hours: 4
ACC 203 - Prin of Managerial Acct Credit Hours: 4
BUS 223 - Marketing I Credit Hours: 3

BUS 226 - Business Law Credit Hours: 3
BUS 308 - Prin of International Business Credit Hours: 3
BUS 313 - Health Care Systems & Policy Credit Hours: 3
BUS 317 - Health Care Management Credit Hours: 3
BUS 337 - Prin of Health Care Marketing Credit Hours: 3
BUS 345 - Fraud Examination Credit Hours: 3
BUS 349 - Human Resource Management I Credit Hours: 3
PHIL 342 - Business Ethics Credit Hours: 3
PSY 347 - Organizational Behavior Credit Hours: 3

Emergency Medical Services Department

Jamie Kennel, *Department Chair*

Professors: J. Kennel
Instructors C. Hamper, C. Curtz, H. Edwins

Degrees Offered

- Associate of Applied Science (AAS) in Paramedic (joint degree through Oregon Tech and OHSU).
- Bachelor of Science (BS) of Emergency Medical Services Management (joint degree through Oregon Tech and OHSU).

Program Learning Outcomes

EMT Program Learning Outcomes

- Recognize the nature and seriousness of the patient's condition and/or extent of injuries to assess requirements for emergency medical and trauma care
- Administer appropriate emergency medical care based on traumatic assessment findings of the patient's condition
- Administer appropriate emergency medical care based on assessment findings of the patient's condition
- Lift, move, position and otherwise handle the patient to minimize discomfort and prevent further injury
- Perform safely and effectively the expectations of the job description
- Perform the expectations of a 911 EMT safely and effectively.

Paramedic Program Learning Outcomes

- Comprehend, apply, and evaluate information relative to the role of an entry-level Paramedic.
- Demonstrate technical proficiency in all of the skills necessary to fulfill the role of an entry-level Paramedic.
- Demonstrate personal behaviors consistent with professional and employer expectations of an entry level Paramedic.

BS in EMS Management Learning Outcomes

- Foster professional growth in communication, teamwork, ethics, inquiry and analysis, quantitative literacy, and diversity.
- Prepare students to advance their professional medical training in all the major areas of pre-hospital clinical practice.
- Develop an awareness and practice of current EMS management challenges.

Career Opportunities

The EMS department provides a full spectrum of pre-hospital training programs and degrees, jointly offered by OHSU and Oregon Tech, starting from your very first EMS or general education course all the way through to completing your bachelor's degree, all created with collaboration from local and national industry leaders including:

- Emergency Medical Technician (EMT) Training and Certification
- Paramedic Training (AAS degree & Nationally Accredited)
- Critical Care Paramedic Training
- Community Care Paramedic / Mobile Integrated Health care Training
- EMS Management (Bachelor's degree)

Depending on your career aspirations, graduates find career employment in a variety of settings including ambulance transport agencies, fire and rescue agencies, air-medical transport agencies, medical support for industrial sites, tactical-medical teams, hospitals, and international aid missions, to name just a few.

The EMT and Paramedic program prepares students for entry positions in the pre-hospital medicine profession. Upon successful completion of the program, graduates are eligible to sit for the National Registry examination, which can lead to both national and state certifications.

Accreditation

While all programs at the university are accredited by the Northwest Commission on Colleges and Universities (NWCCU), where it is available and adds value to our students, our EMS programs offer additional programmatic accreditation. The Paramedic program is nationally accredited by The Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

Admission Requirements

All courses offered by the EMS department require only general Oregon Tech admission with one exception: the second year of the Paramedic degree. Due to the large number of applications and relatively limited number of student positions, the second year of the paramedic degree is a competitive application process requiring a separate admissions step, further described on the Oregon Tech website (www.oit.edu/paramedic).

Whether you're an incoming freshman or preparing to transfer into one of our programs, students have been most successful when they focus and excel in the following three areas:

- Strong academic performance overall with an emphasis on science coursework performance
- Experience in providing pre-hospital care (e.g. volunteer, intern, BLS transports, etc.) ideally with hands-on direct patient care
- Strong customer service experience with the public

All prospective students are encouraged to meet with the EMS department Program Coordinator to review transcripts and develop a customized plan to get started.

Emergency Medical Services Management, Community Care Track, BS

Curriculum

The following are required courses and recommended terms for students wishing to meet the AAS and BS degree requirements. All courses listed on the curriculum map in the catalogue year a student begins a program must be fulfilled for graduation eligibility.

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- BIO 231 - Human Anatomy/Physiology I Credit Hours: 4
- EMS 151 - Emerg Med Tech (EMT) I Credit Hours: 6
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

Winter

- BIO 232 - Human Anatomy/Physiology II Credit Hours: 4
- EMS 152 - Emerg Med Tech (EMT) II Credit Hours: 6
- COM 111Z - Public Speaking Credit Hours: 4

Spring

- BIO 200 - Medical Terminology Credit Hours: 2
- BIO 233 - Human Anatomy/Physiology III Credit Hours: 4
- EMS 115 - Introduction to EMS Credit Hours: 3
- PSY 201Z - Introduction to Psychology I Credit Hours: 4
- Humanities Elective Credit Hours: 3

Paramedic Professional Courses

(Additional Application Required)

Sophomore Year

Fall

- CHE 210 - Clinical Pharmacology Credit Hours: 3
- EMS 218 - Trauma Emergencies Credit Hours: 3
- EMS 231 - Medical Emergencies Credit Hours: 4

- EMS 235 - Basic Electrocardiography Credit Hours: 3
- EMS 241 - Paramed Crisis Resrce Mgmt I Credit Hours: 3
- EMS 271 - Paramedic Skills Lab I Credit Hours: 3

Winter

- EMS 211 - Prehospital Emerg Pharmacology Credit Hours: 3
- EMS 232 - Medical Emergencies II Credit Hours: 3
- EMS 236 - Advanced Electrocardiography Credit Hours: 3
- EMS 242 - Paramed Crisis Resrce Mgmt II Credit Hours: 1
- EMS 272 - Paramedic Skills Lab II Credit Hours: 2

- EMS 283 - Clinical Practicum I Credit Hours: 6
  or
- EMS 284 - Clinical Practicum II Credit Hours: 6

Spring

- EMS 237 - Paramedic 12-Leads Credit Hours: 1
- EMS 273 - Paramedic Skills Lab III Credit Hours: 1
- EMS 243 - Paramed Crisis Resrce Mgmt III Credit Hours: 1

- EMS 283 - Clinical Practicum I Credit Hours: 6
  or
- EMS 284 - Clinical Practicum II Credit Hours: 6

- EMS 291 - Paramed Capstone I Credit Hours: 4

Summer

- EMS 292 - Paramed Capstone II Credit Hours: 12

Junior Year

Fall

- BUS 317 - Health Care Management Credit Hours: 3
- BUS 337 - Prin of Health Care Marketing Credit Hours: 3

Winter

- BUS 313 - Health Care Systems & Policy Credit Hours: 3
- ECO 202 - Principles of Macroeconomics Credit Hours: 3

Spring

- ECO 201 - Principles of Microeconomics Credit Hours: 3
- WRI 227Z - Technical Writing Credit Hours: 4

- PSY 347 - Organizational Behavior Credit Hours: 3
- SPE 321 - Small Group/Team Comm Credit Hours: 3
- Humanities - 300 or 400 Elective Credit Hours: 3

Senior Year

Fall

- BUS 349 - Human Resource Management I Credit Hours: 3
- MATH 361 - Statistical Methods I Credit Hours: 4
- PHIL 331 - Ethics in the Professions Credit Hours: 3
- WRI 327 - Advanced Tech Writing Credit Hours: 3

Winter

- BUS 316 - Total Quality Health Care Credit Hours: 3
- EMS 496 - EMS Capstone Project I Credit Hours: 3
- EMS 456 - Research Methods in EMS Credit Hours: 2
- MATH 362 - Statistical Methods II Credit Hours: 4
- Math, Science, or Social Science Elective (upper division) Credit Hours: 3

Spring

- BUS 467 - Service Management Credit Hours: 3
- EMS 497 - EMS Capstone Project II Credit Hours: 3
- EMS 444 - EMS Systems, Lead & Mgt Credit Hours: 3
- Math, Science, or Social Science Elective (upper division) Credit Hours: 3

Total for a B.S. in Emergency Medical Services Management Community Care Track: 197 Credit Hours

Emergency Medical Services Management, Critical Care Track, BS

Curriculum

The following are required courses and recommended terms for students wishing to meet the AAS and BS degree requirements. All courses listed on the curriculum map in the catalogue year a student begins a program must be fulfilled for graduation eligibility.

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- BIO 231 - Human Anatomy/Physiology I Credit Hours: 4
- EMS 151 - Emerg Med Tech (EMT) I Credit Hours: 6
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

Winter

- BIO 232 - Human Anatomy/Physiology II Credit Hours: 4
- EMS 152 - Emerg Med Tech (EMT) II Credit Hours: 6
- COM 111Z - Public Speaking Credit Hours: 4

Spring

- BIO 200 - Medical Terminology Credit Hours: 2
- BIO 233 - Human Anatomy/Physiology III Credit Hours: 4
- EMS 115 - Introduction to EMS Credit Hours: 3
- PSY 201Z - Introduction to Psychology I Credit Hours: 4
- Humanities Elective Credit Hours: 3

Paramedic Professional Courses

(Additional Application Required)

Sophomore Year

Fall

- CHE 210 - Clinical Pharmacology Credit Hours: 3
- EMS 218 - Trauma Emergencies Credit Hours: 3
- EMS 231 - Medical Emergencies Credit Hours: 4
- EMS 235 - Basic Electrocardiography Credit Hours: 3
- EMS 241 - Paramed Crisis Resrce Mgmt I Credit Hours: 3
- EMS 271 - Paramedic Skills Lab I Credit Hours: 3

Winter

- EMS 211 - Prehospital Emerg Pharmacology Credit Hours: 3
- EMS 232 - Medical Emergencies II Credit Hours: 3
- EMS 236 - Advanced Electrocardiography Credit Hours: 3
- EMS 242 - Paramed Crisis Resrce Mgmt II Credit Hours: 1
- EMS 272 - Paramedic Skills Lab II Credit Hours: 2

- EMS 283 - Clinical Practicum I Credit Hours: 6
  or
- EMS 284 - Clinical Practicum II Credit Hours: 6

Spring

- EMS 273 - Paramedic Skills Lab III Credit Hours: 1
- EMS 243 - Paramed Crisis Resrce Mgmt III Credit Hours: 1

- EMS 283 - Clinical Practicum I Credit Hours: 6
  or
- EMS 284 - Clinical Practicum II Credit Hours: 6

- EMS 291 - Paramed Capstone I Credit Hours: 4

Summer

- EMS 292 - Paramed Capstone II Credit Hours: 12

Junior Year

Fall

- BUS 317 - Health Care Management Credit Hours: 3
- BUS 337 - Prin of Health Care Marketing Credit Hours: 3
- ECO 201 - Principles of Microeconomics Credit Hours: 3
- WRI 227Z - Technical Writing Credit Hours: 4

Winter

- BUS 313 - Health Care Systems & Policy Credit Hours: 3
- ECO 202 - Principles of Macroeconomics Credit Hours: 3
- EMS 331 - Critical Care Transport Credit Hours: 5

Spring

- EMS 332 - Critical Care Transport II Credit Hours: 3
- EMS 382 - Critical Care Clinical Practicum Credit Hours: 3
- HUM - 300 or 400 Elective Credit Hours: 3
- PSY 347 - Organizational Behavior Credit Hours: 3
- SPE 321 - Small Group/Team Comm Credit Hours: 3

Senior Year

Fall

- BUS 349 - Human Resource Management I Credit Hours: 3
- MATH 361 - Statistical Methods I Credit Hours: 4
- PHIL 331 - Ethics in the Professions Credit Hours: 3
- WRI 327 - Advanced Tech Writing Credit Hours: 3

Winter

- BUS 316 - Total Quality Health Care Credit Hours: 3

- EMS 496 - EMS Capstone Project I Credit Hours: 3
- EMS 456 - Research Methods in EMS Credit Hours: 2
- MATH 362 - Statistical Methods II Credit Hours: 4
- Math, Science, or Social Science Elective (upper division) Credit Hours: 3

Spring

- BUS 467 - Service Management Credit Hours: 3
- EMS 497 - EMS Capstone Project II Credit Hours: 3
- EMS 444 - EMS Systems, Lead & Mgt Credit Hours: 3
- Math, Science, or Social Science Elective (upper division) Credit Hours: 3

Total for a B.S. in Emergency Medical Services Management Critical Care Track: 190 Credit Hours

Emergency Medical Technology Paramedic, AAS

Curriculum

The following are required courses and recommended terms for students wishing to meet the AAS and BS degree requirements. All courses listed on the curriculum map in the catalogue year a student begins a program must be fulfilled for graduation eligibility.

Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- BIO 231 - Human Anatomy/Physiology I Credit Hours: 4
- EMS 151 - Emerg Med Tech (EMT) I Credit Hours: 6
- MATH 100 - Intermediate Algebra Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

Winter

- BIO 232 - Human Anatomy/Physiology II Credit Hours: 4
- EMS 152 - Emerg Med Tech (EMT) II Credit Hours: 6
- COM 111Z - Public Speaking Credit Hours: 4

Spring

- BIO 200 - Medical Terminology Credit Hours: 2
- BIO 233 - Human Anatomy/Physiology III Credit Hours: 4
- EMS 115 - Introduction to EMS Credit Hours: 3
- PSY 201Z - Introduction to Psychology I Credit Hours: 4

Paramedic Professional Courses

(Additional Application Required)

Sophomore Year

Fall

- CHE 210 - Clinical Pharmacology Credit Hours: 3
- EMS 218 - Trauma Emergencies Credit Hours: 3
- EMS 231 - Medical Emergencies Credit Hours: 4
- EMS 235 - Basic Electrocardiography Credit Hours: 3
- EMS 241 - Paramed Crisis Resrce Mgmt I Credit Hours: 3
- EMS 271 - Paramedic Skills Lab I Credit Hours: 3

Winter

- EMS 211 - Prehospital Emerg Pharmacology Credit Hours: 3
- EMS 232 - Medical Emergencies II Credit Hours: 3
- EMS 236 - Advanced Electrocardiography Credit Hours: 3
- EMS 242 - Paramed Crisis Resrce Mgmt II Credit Hours: 1
- EMS 272 - Paramedic Skills Lab II Credit Hours: 2
- EMS 283 - Clinical Practicum I Credit Hours: 6

Spring

- EMS 237 - Paramedic 12-Leads Credit Hours: 1
- EMS 243 - Paramed Crisis Resrce Mgmt III Credit Hours: 1
- EMS 273 - Paramedic Skills Lab III Credit Hours: 1
- EMS 284 - Clinical Practicum II Credit Hours: 6
- EMS 291 - Paramed Capstone I Credit Hours: 4

Summer

- EMS 292 - Paramed Capstone II Credit Hours: 12

Total Credit Hours for A.A.S. Degree in EMT – Paramedic:

Technical Total: 64 Credit Hours

Degree Total: 108 Credit Hours

Health Sciences Department

Jacki Brechter, *Department Chair*

Associate Professors: M. GrantBeuttler, J. Brechter, J. Isaacson, J. Perri
Assistant Professor: A. Petty

Participating Faculty: L. McLaughlin, J. Perri, K. Rabe, M. Schwartz, J. Shinn, A. Venes, B. Westling

Adjunct Faculty: S. O'Keefe

Degrees Offered

- Doctorate of Physical Therapy
- Master of Science in Allied Health
- Bachelor of Science in Respiratory Care
- Bachelor of Science in Respiratory Care, Degree Completion
- Associate of Applied Science in Sleep Health, Clinical Sleep Health Option
- Associate of Applied Science in Sleep Health, Polysomnographic Technology Option
- Certificate in Clinical Sleep Health
- Certificate in Polysomnographic Technology

Doctor of Physical Therapy

Program Purpose and Mission Statement

The Doctor of Physical Therapy (DPT) is a joint Oregon Tech and Oregon Health & Science University (OHSU) program that will provide a comprehensive entry-level and post-baccalaureate DPT education, with the unique focus of preparing high quality graduates with the skills to become practitioners of choice and leaders in rural physical therapy practice. The DPT program will ensure graduates develop competence in the diagnosis and treatment of patients with health or medical conditions that may affect movement and mobility.

Graduates will complete all eligibility requirements to sit for the state licensure exam and will be prepared for employment as autonomous practitioners in a variety of clinical settings.

Program Learning Outcomes:

Graduates of the Oregon Tech and OHSU DPT program will:

1. Be proficient to practice as effective, efficient, and safe autonomous practitioners.

a. Achieve 100% ultimate pass rate on the National Physical Therapy Examination.

b. Engage in self-directed practice grounded in contemporary evidence and research; demonstrate exemplary critical thinking to meet patient needs; and engage in interprofessional practice to optimize patient outcomes.

c. Practice physical therapy in accordance with the American Physical Therapy Association Standards of Practice, state laws, and federal laws in direct access environments.

d. Supervise, manage, and instruct support personnel, including the delegation of appropriate tasks.

2. Demonstrate empathetic and compassionate practice.

a. Adhere to the American Physical Therapy Association Code of Ethics.

b. Respect and treat each patient as an individual, regardless of gender, race, color, sexual orientation, or religious affiliation.

c. Demonstrate ability to safely provide appropriate patient-centered care, interpreted as practicing ethically and professionally, with cultural competence/sensitivity.

d. Act as patient advocate, educator, and consultant in diverse settings.

3. Demonstrate commitment to the physical therapy profession.

a. Serve as leaders who assume multiple roles, including scholarly activities, which have a positive impact on the profession and the community.

b. Demonstrate dedication, integrity, and a lifelong commitment to learning and professional development.

Accreditation

The Doctor of Physical Therapy Program is accredited by Commission on Accreditation in Physical Therapy Education. CAPTE is an accrediting agency that is nationally recognized by the US Department of Education (USDE) and the Council for Higher Education Accreditation (CHEA). CAPTE grants specialized accreditation status to qualified entry-level education programs for physical therapists and physical therapist assistants. The Doctor of Physical Therapy program's accreditation status is "Developing Program" which hat has officially notified the Department of Accreditation that a Program Director has been employed. Developing programs are in the early stages of development; no students have been admitted.

Career Opportunities

Throughout Oregon and the Pacific Northwest, there is a high demand for qualified physical therapists. Shortages in the physical therapy (PT) field are even more acute in the state's many rural areas. In a time when proactive care is the mantra and approach of the U.S. healthcare system, and demand from patients continues to grow, PT is becoming an even larger field within Oregon and the nation.

There are many career paths for physical therapists. Listed are some you may not have considered.

Hospital and inpatient rehabilitation facilities

Outpatient facilities

Skilled nursing facilities

Pediatric physical therapy

Sports physical therapy

Clinical research

Entrepreneurship

Admissions Procedures

The application process for summer admission to the OIT/OHSU Doctor of Physical Therapy (DPT) program will open July 1, 2024 at 11:59pm. The OIT/OHSU DPT program plans to participate in the Physical Therapist Centralized Application Service, known as PTCAS, in the 2024-23 admissions cycle. Applicants applying to the OIT/OHSU physical therapist education program for the 2024 entering class will apply online using the PTCAS application beginning July 1, 2024. To learn more about PTCAS, visit www.ptcas.org. Applications will be due November 1, 2024. Applicants must be U.S. citizens or permanent residents who currently and will continue to reside in the U.S. for the entirety of the program. They must also satisfy all requirements, which include:

1. Bachelor's Degree

Applicants must hold a bachelor's degree from a regionally accredited college or university by the date of program enrollment, which is in Summer Session of each year.

2. Minimum Cumulative and Prerequisite GPAs of 3.0

The minimum cumulative GPA is 3.0 and the minimum prerequisite GPA is 3.0. Higher GPAs will be more competitive within the applicant pool.

3. Pre-requisites

- All prerequisite courses must be completed prior to matriculation, although an application may be submitted prior to completing all prerequisite coursework. Only 1 prerequisite course may be in progress in the spring semester prior to matriculation.
- All courses must be acceptable for science majors or for pre-health professions majors.
- Courses described as "survey" will not be accepted as prerequisites.
- Grades of "C" or better are required in all prerequisite courses, as outlined below.
- Prerequisite courses taken on a "pass/no pass" basis will not be accepted.
- All science coursework must have been completed within 7 years of the intended year of entry.
- Advanced Placement (AP) courses will not be accepted as prerequisites for Chemistry, Physics, or Anatomy & Physiology. One AP course can be applied to the statistics prerequisite course OR to one of the psychology prerequisite courses (only one AP course can be utilized).

Biological Sciences:

- A one-year biology series with labs designated for science majors or pre-health professions (12 quarter credits or 8 semester credits
    - BIO 211+212+213 at Oregon Tech, or comparable coursework elsewhere
- A one-year human anatomy & physiology series with labs OR one semester of anatomy (with lab) and one semester of physiology (with lab) designated for science majors or pre-health professions (12 quarter credits or 8 semester credits).
    - BIO 231+232+233 or BIO 331+332+333 at Oregon Tech, or comparable coursework elsewhere

Chemistry:

- A one-year general chemistry series with labs designated for science majors or pre-health professions (12 quarter credits or 8 semester credits).
    - CHE 221+222+223 at Oregon Tech, or comparable coursework elsewhere

Physics:

- A one-year general physics series with labs designated for science majors or pre-health professions (12 quarter credits or 8 semester credits).
    - PHY 221+222+223 at Oregon Tech, or comparable coursework elsewhere. An Algebra-based physics course series is also acceptable.

Mathematics:

- 1 semester each of pre-calculus and statistics (6 credits total).

Psychology:

- 3 quarter courses OR 2 semester courses (6 credits total).

Social Sciences:

- 3 quarter courses or 2 semester courses (6 credits total).

English:

- 3 quarter courses or 2 semester courses (6 credits total).

Program Requirements

Students admitted to the DPT program must purchase instruments and other supplies to be used during clinical practice and pay additional fees associated with DPT course work. A background check, drug test, and proof of immunizations specific to healthcare workers are required prior to final matriculation into the professional program.

Graduation Requirements

All courses listed in the curriculum for the catalog year a student begins the DPT program must be fulfilled. Total credits required for graduation are: Doctor of Physical Therapy 163. A minimum cumulative grade point average (GPA) of 3.0 is required for graduation. All clinical experience courses must be successfully completed with the minimum level of competency set by the program.

Licensure

Graduation from the Oregon Tech-OHSU accredited Doctor of Physical Therapy program provides you the qualification to sit for the National Physical Therapist Exam (NPTE) jointly organized by the Oregon Board of Physical Therapy (OBPT) and the Federation of State Boards of Physical Therapy (FSBPT). In addition, you will be qualified to take the Oregon Pain Commission's Pain Management Module and to sit for the Oregon Jurisprudence Assessment Module (OR JAM) both required for your Oregon PT License. Should you wish to apply for licensure in another state or jurisdiction, you would need to determine those state jurisprudence requirements. The program will assist each graduate in obtaining the information required for the specific state exams and registration for the required modules and the NPTE.

Academic Performance Standards

Minimum Grade Requirements

To make satisfactory academic progress within the Department of Physical Therapy Education,

students must:

1. Receive a passing grade of "C+" or better in graded courses or "pass" in pass/fail

courses in each course required in the physical therapy curriculum.

2. Maintain an overall grade point average of 3.0 or better in each semester of the

program and cumulatively throughout the curriculum

Academic Probation:

Any student:

1. whose term grade point average is below 3.00 for a single term or,

2. any student whose cumulative grade point average is below 3.00 or,

3. any student who receives a final course grade of "C" or below in any course or,

4. any student who receives a "fail" grade in a pass/fail course

will be placed on academic probation. A student on academic probation will be required to

complete a formal remediation plan agreed upon and signed by both the student and the Program Director or designee. If the remediation plan is not successfully completed in the specified time frame, the student may be subject to further disciplinary actions.

Academic Suspension:

When a student's academic performance does not provide evidence of satisfactory progress toward meeting degree requirements, a temporary separation from the University is required. After a suspension is completed, students may apply for readmission by complying with reinstatement criteria.

Students may be placed on academic suspension if:

1. their cumulative GPA is below 2.00 and/or
2. they earn a third grade below "C+" and/or
3. they have previously been placed on academic probation without demonstrating satisfactory academic progress on their remediation plan.

Master of Science in Allied Health

The MSAH program supports Oregon Tech's mission to offer rigorous applied degree programs by providing scholarly, research and evidence based, high quality coursework (aligned with the National Center for Healthcare Leadership guidelines) ensuring student success in the work place.

The discipline of allied health leadership in health care settings involves effective communication, building relationships, self-confidence, self-development, team leadership, change leadership, accountability, collaboration, organizational development, performance measurements, financial skills, innovative thinking and strategic orientation. The MSAH curriculum emphasizes strong foundational course work and hands-on application through real life health care cases to prepare students to be effective professionals in their communities. Typical students in the program are already employed and are working to advance their degrees and career opportunities in leadership, management, and administration of public health systems, health care systems, hospitals, and hospital networks.

Master of Science Program Description

The Department of Medical Imaging Technology offers a Master of Science in Allied Health, which is fully an online degree for students who hold a Bachelor's degree and are working in a health care setting. The program will focus on preparing allied health professionals for advancement in management, education and administration in their respective health care disciplines.

Physical Education and Health Education

Minor Offered

- Coaching Minor

The Coaching Minor offers Oregon Tech students the opportunity to gain knowledge and skills in coaching. The Coaching Minor features study in the basics of sports medicine, team communication and psychology, and coaching theory. It also includes an opportunity to apply that knowledge to coaching in practical ways. Students who obtain the minor will document their preparation to coach in any sport or situation. For advising or for more information contact the head of the Coaching Minor Committee, currently, Dr. Kevin Brown.

Career Opportunities

The Coaching Minor represents a credential that documents the student's academic and practical preparation to coach. For students interested in coaching, this should give them an advantage over others without documented training and experience.

Physical Education Philosophy and Courses

At Oregon Institute of Technology, the physical education philosophy is that every man and woman can achieve and maintain fitness through a sound program based on varied developmental, sport, and recreational activities. The physical education courses provide basic instruction in vigorous activities.

Course offerings include fitness training, weight lifting, aerobics activities, archery, ice skating, rugby, recreational basketball, tai chi, Zumba, yoga, kick boxing, core strength & balance, Pilates, rowing, belly dance, scuba, swim classes, relaxation & flexibility, varsity sports and major sports seminars, including weight loss and weight loss management. Other offerings include wilderness navigation, cross country skiing and snowshoeing.

Health Education Philosophy and Courses

Selected courses in health education are provided to assist students to prevent physical and mental health disorders and to promote well-being.

Course Policy

Physical education courses are currently offered as elective credits only. Some courses may require an additional course fee depending on facility and special equipment needs. There is no limit on the number of times a physical education course can be repeated.

Respiratory Care Program

The Bachelor of Science degree program prepares the respiratory care student for entry into the respiratory care profession and eligibility for the National Board for Respiratory Care (NBRC) certificate examination (CRT) and registry examinations (RRT). Upon successful completion of the program, the graduate is eligible to apply for state licensure.

Accreditation

The Respiratory Care Program is fully accredited by the Commission on Accreditation for Respiratory Care (www.coarc.com), 1248 Harwood Rd., Bedford, TX 76021, (817) 283-2835.

Career Opportunities

Registered respiratory therapists are physician extenders who, under medical direction, administer cardiopulmonary care, evaluate and assess pulmonary patients, and administer medications and diagnostic tests when appropriate. Their duties involve the use of many of the latest advances in medical arts, sciences, and technology. Graduates are employed in hospitals, physician's offices, rehabilitation facilities, home-care agencies and health care promotion centers as caregivers, managers and educators.

Licensure

Students, when applying for licensure, will be asked if they have ever been convicted of a criminal offense, or if they have a history of drug or alcohol abuse. Students with a concern in this area should immediately contact the Oregon Respiratory Therapist Licensing Board (ORTLB) prior to applying to this program.

Program Learning Outcomes

Students in the program will demonstrate:

- the ability to communicate effectively in oral, written and visual forms
- knowledge of the respiratory care code of ethics and ethical and professional conduct
- the ability to function effectively as a member of the health care team
- knowledge and application of mechanical ventilation and therapeutics
- knowledge and application of cardiopulmonary pharmacology and pathophysiology
- management of respiratory care plans for adult, neonatal and pediatric patients

Pre-Respiratory Care Freshman Year

Enrollment is open to all students who meet the general entry requirements to Oregon Institute of Technology. Students will be listed as Pre-Respiratory Care students. Students will be selected into the professional curriculum based on cumulative grade-point average, non-smoking status, performance on an anatomy and physiology test and submission of a technical paper. Alternatively, students may be admitted based upon successful completion of a CoARC accredited associate degree program in respiratory care.

Students are strongly advised to complete all the general education courses in the freshman year curriculum before making application to the professional program.

Selections will be made at the end of the spring and summer terms of the Pre-Respiratory Care year. The number of students selected each year will be determined by the availability of clinical sites and other resources, which means that the number of qualified applicants may exceed the number of spaces available. When that is the case, students with the highest cumulative GPA are the first to be offered a position in the program.

Degree Completion Program

The Respiratory Care Program offers a degree completion program for respiratory therapists who wish to pursue a bachelor's degree in their field. The program is offered online and requires collaborative learning. Admission is based on successful completion of a CoARC accredited associate degree in respiratory care. When students have completed RCP 442 and have submitted documentation of the Registered Respiratory Therapist credential college credit is granted. Students must participate in an orientation. Each prospective student's academic credits will be individually evaluated to determine acceptability of the non-professional coursework and the sequencing of the professional courses. Every student must meet the Oregon Tech general education requirements for graduation. The Respiratory Care Degree Program includes the presentation of a senior project.

Graduation Requirements

All credits listed in the curriculum for the catalog year a student begins a program must be fulfilled. A minimum of 187 credits must be completed and students must maintain a 2.00 GPA to be eligible for graduation. In addition, a final grade of "C" or better must be earned in all professional courses (RCP), communication courses, and science/mathematics courses to continue in the program. All curricular requirements must be met within five academic years once the student is admitted into the professional program as a sophomore. Students must successfully pass the SAE examination as a condition of the BS degree completion.

Clinical Sleep Health

- Associate of Applied Science in Sleep Health, Clinical Sleep Health Option

Certificate Offered in Clinical Sleep Health

Students must successfully complete the core courses required to sit for a national exam. Computer and Internet access is required. Successful completion of the certificate curriculum (together with a completed Associate degree) leads to eligibility to sit for the national Certified Clinical Sleep Health examination (CCSH).

The program objectives and focus are to provide content knowledge in the following domains: Sleep Over the Lifespan; Clinical Evaluation and Management; Patient and Family Communication and Education; and Program Maintenance and Administration.

Associate of Applied Science in Sleep Health – Clinical Sleep Health Options

Students must successfully complete the courses in the certificate program for Clinical Sleep Health and 46 other general education credits. The degree completion courses can be taken from Oregon Tech or transferred from another college, however at least 30 credits must be taken from Oregon Tech. Successful completion of the two year curriculum leads to eligibility to sit for the national Certified Clinical Sleep Health (CCSH) exam. Computer and Internet access is required.

Students who have completed the CCSH exam may pursue a Health Care Management, Clinical Option, BS . Students complete health management classes offered through the Oregon Tech Management Department either in the classroom or via the online education program while working in their hometown. See the Management Department section of this catalog for more information regarding this degree.

Accreditation

The Clinical Sleep Health Program is accredited under the university accreditation by the Northwest Commission on Colleges and Universities (NWCCU), 8060 165th Avenue, N.E., Suite 100, Redmond, WA 98052-3981. NWCCU is an institutional accrediting body recognized by the Council for Higher Education and/or the Secretary of the U.S. Department of Education. As of this date, Commission on Accreditation of Allied Health Education Programs (CAAHEP) does not have an accrediting body for this degree.

Career Opportunities

Certified Clinical Sleep Health specialists, under medical direction, conduct diagnostic testing, evaluation of sleep disorder patients, patient/community education, compliance certification, status evaluations, and coordination of patient care plans. Their duties involve the use of highly advanced technology and compassionate patient care. Graduates are employed by hospitals, out-patient testing facilities and bio-medical equipment manufacturers.

Licensure

Students are eligible to sit for the national CCSH exam administered by the Board of Registered Polysomnographic Technologists following the completion of the courses in the certificate program.

Program Learning Outcomes

1. Describe normal sleep architecture, quantity, and quality for the following populations: adult, geriatric, pediatric and infant
2. Identify factors contributing to variations in normal sleep
3. Identify and recognize the pathophysiology, epidemiology, and clinical presentation of abnormal sleep
4. Correlate and document sleep and medical history
5. Identify co-morbid conditions and impact on patients
6. Assess and explain evaluation and measurement tools
7. Evaluate and describe treatment/therapy options and develop individualized patient care plans
8. Develop sleep educational programs for patients and their families in the areas of sleep hygiene and specific treatments
9. Develop multidisciplinary and collaborative sleep programs for inpatients, outpatients, and occupational health and wellness programs
10. Develop system to track and manage therapeutic programs for performance improvement and quality
11. Develop a community outreach program to promote sleep disorders as a public health issue

Student Preparation

The Certificate in Clinical Sleep Health is designed for those who have an approved medical license and at least an associate degree. Applicants must have one of the following credentials to be eligible for admission into the certificate program.

- Polysomnographic Technologist (RPSGT) or
    - Sleep Technologist (RST)
    - Respiratory Therapist (RRT, CRT)
    - Neurodiagnostic Technologist (REEGT, CLTM)
- Health Educator (CHES)
- Nurse (RN, LPN, MSN) or
- Nurse Practitioner (NP)
- Physician (MD, DO)
- Physician Assistant (PA)
- Dentist (DDS)
- Dental Hygiene (DH)
- Doctor of Philosophy (PhD) in health, counseling, science

The AAS degree is for those who hold a current license in any of the above areas, but do not have an associate (or higher) degree. Candidates for the national registry exam must hold a minimum of an associate degree.

Computer Proficiency Requirement

The CSH Program is an online education program requiring basic computer proficiency to be successful.

Clinical Requirements

All applicants must meet the general admissions requirements to enroll in the Polysomnographic Technology Program. To be eligible for admission into the Polysomnographic Technology Program, applicants must meet the following criteria:

1. Applicants for the certificate program must be licensed in one of the medical fields listed above and hold at least an associate degree. **All prospective candidates must be currently employed in a facility that treats patients with sleep disorders, and the medical director or clinical manager must agree to allow the candidate to complete 400 hours of externship under his or her direction.**

2. Candidates must provide proof of completion of either a Cardio Pulmonary Resuscitation (CPR) course or a Basic Cardiac Life Support (BCLS) course prior to enrollment.

Graduation Requirements

Minimum graduation requirements for the A.A.S are the successful completion of 46 credit hours of general education courses and 45 credit hours in the area of specialization with a GPA of 2.0 or better. In addition, a final grade of "C" or better must be earned in all professional courses (CSH, BUS, and BIO), communication courses and science/mathematics course to continue in the program. This requirement also applies to the certificate program.

Polysomnographic Technology

- Associate of Applied Science in Sleep Health

Certificate Offered

- Polysomnographic Technology

Students must successfully complete the core courses required to sit for a national exam. Computer and Internet access is required. Successful completion of the certificate curriculum leads to eligibility to sit for the national Registered Polysomnographic Technologists examination (RPSGT).

Associate of Applied Science in Sleep Health – Polysomnographic Technology Option

Students must successfully complete the courses in one of the certificate programs for Polysomnographic Technology or Clinical Sleep Health and other general education courses. The degree completion courses can be taken from Oregon Tech or transferred from another college. A minimum of 30 credit hours must be taken from Oregon Tech. Computer and Internet access are required.

Students who have completed the RPSGT or CCSH exams may pursue a Health Care Management, Clinical Option, BS . Students complete health management classes offered through the Oregon Tech Management Department either in the classroom or via the online education program while working in their hometown. See the Management Department for more information regarding this degree.

Accreditation

The Polysomnographic Technology Certificate (not the AAS) is fully accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). The curriculum follows the guidelines suggested by the Board of Registered Polysomnographic Technologists. Inquiries regarding accreditation should be directed (CAAHEP). Commission on Accreditation of Allied Health Education Programs, (CoPSG) is a specialized accrediting body

recognized by the Council for Higher Education Accreditation and/or the Secretary of the U.S., Department of Education. CAAHEP contact information: 1361 Park Street, Clearwater, FL 33756, Phone: (727) 210-2350

Career Opportunities

Registered Polysomnographic technologists, under medical direction, conduct diagnostic testing and evaluation of sleep disorder patients. Their duties involve the use of highly advanced technology and compassionate patient care. Graduates are employed by hospitals, out-patient testing facilities and bio-medical equipment manufacturers. Currently, there is a severe nationwide shortage of Registered Polysomnographic Technologists.

Licensure

Students are eligible to sit for the national RPSGT exam administered by the Board of Registered Polysomnographic Technologists following the completion of the courses in the certificate program.

Program Learning Outcomes

- Demonstrate the ability to review patient information and prepare for a polysomnogram
- Demonstrate the ability to apply sensors correctly with acceptable impedances for data collection
- Demonstrates ability to calibrate signals, document, and troubleshoot recording artifact
- Demonstrates ability to accurately analyze and summarize adult PSG data
- Demonstrates understanding of PAP and 02 theory, application and contraindications
- Demonstrates knowledge of PAP therapy adherence, management, and patient education

Student Preparation

A science background is beneficial to those entering any health sciences profession. It is recommended that the student considering a career in Polysomnography take a college bound course of study in high school that includes algebra, chemistry and biology or human anatomy and physiology. It is recommended that students take courses in Microsoft Word, Excel and PowerPoint in high school. Students are required to provide proof of completion either Cardio Pulmonary Resuscitation (CPR) or Basic Cardiac Life Support (BCLS) prior to admission.

Computer Proficiency Requirement

Demonstrated computer proficiency is required by the Board of Registered Polysomnographic Technologists to be eligible to sit for the national exam. The PSG Program is an online education program requiring basic computer proficiency to be successful. Successful completion of the program therefore, indicates basic computer proficiency.

Degree Completion Program

The associate degree program offers a degree completion program for Registered Polysomnographic Technologists who lack a degree. The courses for this program can be taken through the Online Education Department or in the classroom. Two of the required courses are not available online and must be taken either in the Oregon Tech classroom or a local college and transferred. The communication courses are offered through the online education program of other colleges in the Oregon University System.

Upon receipt of the necessary documentation, specific college credits will be awarded to qualified applicants for having passed the Registered Polysomnographic Technologists examination.

Clinical Requirements

All applicants must meet the general admissions requirements to enroll in the Polysomnographic Technology Program. To be eligible for admission into the Polysomnographic Technology Program, applicants must meet the following criteria:

1. Applicants for the certificate program must be high school graduates. If a prospective candidate is not currently employed in a sleep facility, an appropriate site must be found and a clinical agreement between Oregon Tech and that facility must be established prior to beginning classes.

2. Candidates must provide proof of completion of either a Cardio Pulmonary Resuscitation (CPR) course or a Basic Cardiac Life Support (BCLS) course prior to enrollment.

3. Candidates must submit immunization records prior to their clinical placement.

4. Criminal background clearance is required prior to acceptance and some clinical sites may require drug screening.

5. One full shift of job shadowing is required prior to applying to the program.

6. All Prospective candidates must speak with the program director Dr. Jane Perri, (937) 750-5416, prior to submitting their application

Graduation Requirements

Minimum graduation requirements for the A.A.S are the successful completion of 43 credit hours of general education courses and 47 credit hours in the area of specialization with a GPA of 2.0 or better. In addition, a final grade of "C" or better must be earned in all professional courses (PSG, ECHO, and RCP), communication courses and science/mathematics course to continue in the program. This requirement also applies to the certificate program.

In order to prepare for the national registry exam, students are required to participate in a practical exam and a comprehensive written exam at the conclusion of the certificate program. Students are required to come either to Medford Oregon or to Dayton, Ohio for one day of residency. Passage of these exams is required to complete the certificate program. Associate degree students who have already obtained their national licensure are not required to complete this requirement.

Allied Health, MS

Curriculum

This program will be delivered completely online, a choice of three tracks.

**Students must complete the allied health core courses, as well as one track to receive the MS in Allied Health.*

Core Courses

- ALH 505 - Intro to IT for Hlth Care Pros Credit Hours: 1
- ALH 510 - The Science of Evidence-Based Medicine Credit Hours: 3
- ALH 515 - Scientific Writing & Healthcare Credit Hours: 3
- ALH 525 - Effective Healthcare Ldshp. Credit Hours: 3
- ALH 535 - Assmt. Plan. Imp. and Eval. Credit Hours: 3
- ALH 545 - Pertinent Ethical & Legal Cons Credit Hours: 3
- ALH 555 - Leadership Theory for HC Ldrs. Credit Hours: 3
- ALH 565 - Population Health Issues for Allied Health Professionals Credit Hours: 3

- ALH 575 - Methods of Research for Allied Health Professionals Credit Hours: 3
- ALH 585 - Financial Consid. & Pol. Strat Credit Hours: 3
- ALH 595 - Curriculum Design for AHP Credit Hours: 3

- ALH 509 - Masters Capstone Project Credit Hours: 6
  or

Track 1 Administrative / Healthcare Leadership Track in Allied Health

- ALH 506 - Program Administration Credit Hours: 3
- STAT 505 - Biostatistics I Credit Hours: 3
- STAT 515 - Epidemiology I Credit Hours: 3
- WRI 510 - Grant Proposal Writing Credit Hours: 3

Track 2 Dental Hygiene Track in Allied Health

- ALH 506 - Program Administration Credit Hours: 3
- ALH 508 - Medical Ed. Theories & Methods Credit Hours: 3
- STAT 505 - Biostatistics I Credit Hours: 3
- WRI 510 - Grant Proposal Writing Credit Hours: 3

Track 3 Respiratory Care Track in Allied Health

- ALH 508 - Medical Ed. Theories & Methods Credit Hours: 3
- RCP 561 - Individual Development Plan Credit Hours: 3
- RCP 565 - Clinical Preceptorship Credit Hours: 3
- RCP 575 - Accreditation Practicum Credit Hours: 3

Total for a M.S. in Allied Health: 49 Credit Hours

Clinical Sleep Health, Certificate

Curriculum

A certificate will be awarded to students completing 45 credit hours of course work in Clinical Sleep Health.

Required courses:

- BIO 200 - Medical Terminology Credit Hours: 2
- BUS 337 - Prin of Health Care Marketing Credit Hours: 3
- BUS 317 - Health Care Management Credit Hours: 3
- CSH 201 - Human Development and Sleep Health Credit Hours: 3
- CSH 220 - Sleep Disord & Co-Morbid Credit Hours: 3

Total for a Certificate in Clinical Sleep Health: 45 Credit Hours

Coaching Minor

The Coaching Minor offers Oregon Tech students the opportunity to gain knowledge and skills in coaching. The Coaching Minor features study in the basics of sports medicine, team communication and psychology, and coaching theory. It also includes an opportunity to apply that knowledge to coaching in practical ways. Students who obtain the minor will document their preparation to coach in any sport or situation. For advising or for more information contact the head of the Coaching Minor Committee, currently, Dr. Kevin Brown.

Career Opportunities

The Coaching Minor represents a credential that documents the student's academic and practical preparation to coach. For students interested in coaching, this should give them an advantage over others without documented training and experience.

Requirements of the Minor

It is strongly recommended that students interested in obtaining this minor see a Coaching Minor advisor prior to taking courses.

- HED 275 - Intro to Sports Medicine Credit Hours: 3
- PSY 376 - Foundations of Sports Psych Credit Hours: 3
- SPE 321 - Small Group/Team Comm Credit Hours: 3
- PHED 255 - Intro to Coaching Theory Credit Hours: 3
- PHED 355 - Coaching in Application Credit Hours: 3
- PHED 455 - Coaching Practicum Credit Hours: 3

And six credits of PHED practice courses:

Athletic Conditioning

Choose 3 credits from the following courses:

- PHED 111 - Core Strength and Balance Credit Hours: 1
- PHED 113 - Super Circuit/Cardio Training Credit Hours: 1
- PHED 121 - Total Fitness Conditioning I Credit Hours: 1
- PHED 122 - Total Fitness Conditioning II Credit Hours: 1
- PHED 146 - Yoga Credit Hours: 1
  or

Sport Activity

Choose 3 credits from the following courses:

- PHED 145 - Relaxation and Flexibility Credit Hours: 1
- PHED 151 - Karate Credit Hours: 1
- PHED 163 - Wilderness Navigation Credit Hours: 1
- PHED 174 - Recreational Basketball Credit Hours: 1
- PHED 175 - Rugby Credit Hours: 1
- PHED 180 - Varsity Cross Country Credit Hours: 1
- PHED 181 - Varsity Soccer Credit Hours: 1
- PHED 182 - Varsity Track/Field Credit Hours: 1
- PHED 183 - Varsity Men's Baseball Credit Hours: 1

- PHED 184 - Varsity Men's Basketball Credit Hours: 1
- PHED 185 - Varsity Women's Basketball Credit Hours: 1
- PHED 186 - Varsity Women's Softball Credit Hours: 1
- PHED 187 - Varsity Women's Volleyball Credit Hours: 1

Note:

Requirements constitute 24 credits, of which 12 credits are upper division.

Physical Therapy, DPT

The Doctor of Physical Therapy (DPT) is a joint Oregon Tech and Oregon Health & Science University (OHSU) program that will provide a comprehensive entry-level and post-baccalaureate DPT education, with the unique focus of preparing high quality graduates with the skills to become practitioners of choice and leaders in rural physical therapy practice. The DPT program will ensure graduates develop competence in the diagnosis and treatment of patients with health or medical conditions that may affect movement and mobility.

The Doctor of Physical Therapy curriculum has the potential to undergo curriculum changes with program assessment, changes in higher education, the health care environment, and the nature of contemporary physical therapy practice. Evidence will be used to make these curricular changes.

First Year

Summer

- PT 600 - Introduction to the Physical Therapy Profession Credit Hours: 1
- PT 605 - Clinical Human Anatomy Credit Hours: 9
- PT 610 - Nutrition and Wellness Credit Hours: 2
- PT 640 - Biomechanics and Kinematics of Human Motion Credit Hours: 3

Fall

- PT 615 - Foundations of Physical Therapy Practice Credit Hours: 2
- PT 620 - Physical Therapy Examination Skills Credit Hours: 3
- PT 630 - Social Determinants of Health Credit Hours: 2
- PT 635 - Human Physiology Credit Hours: 3
- PT 665 - Clinical Neuroscience Credit Hours: 3
- PT 670 - Exercise Physiology Credit Hours: 3

Winter

- PT 625 - Assistive Device Training Credit Hours: 2
- PT 631 - Therapeutic Exercise I Credit Hours: 3
- PT 645 - Principles of Evidence-Based Practice Credit Hours: 3
- PT 650 - Therapeutic Modalities Credit Hours: 2
- PT 660 - Motor Development and Control Across the Lifespan Credit Hours: 3
- PT 680 - Ethics in the Health Professions Credit Hours: 2

Spring

- PT 632 - Therapeutic Exercise II Credit Hours: 3
- PT 641 - Management of Musculoskeletal Dysfunction I Credit Hours: 4
- PT 655 - Pathophysiology Credit Hours: 3
- PT 732 - Management of Neurological Dysfunction II Credit Hours: 4
- PT 720 - Clinical Research Methods and Biostatistics Credit Hours: 3

Second Year

Summer

- PT 721 - Clinical Experience I Credit Hours: 9

Fall

- PT 700 - Management of Cardiovascular and Pulmonary Dysfunction Credit Hours: 3
- PT 710 - Medical Imaging for Physical Therapists Credit Hours: 3
- PT 741 - Management of Musculoskeletal Dysfunction II Credit Hours: 4
- PT 732 - Management of Neurological Dysfunction II Credit Hours: 4
- PT 775 - Physical Therapy in Rural Communities Credit Hours: 2

Winter

- PT 725 - Physical Therapy Pharmacology Credit Hours: 3
- PT 730 - Integrated Clinical Experience Credit Hours: 3
- PT 735 - Business, Legal, and Regulatory Issues Credit Hours: 3
- PT 740 - Acute Care in Physical Therapy Credit Hours: 3
- PT 675 - Clinical Reasoning and Decision Making Credit Hours: 2

Spring

- PT 730 - Integrated Clinical Experience Credit Hours: 3
- PT 745 - Differential Diagnosis Credit Hours: 3
- PT 750 - Pediatric Physical Therapy Credit Hours: 3
- PT 755 - Geriatric Physical Therapy Credit Hours: 3
- PT 760 - Orthotics and Prosthetics Credit Hours: 3
- PT 705 - Management of Integumentary Dysfunction Credit Hours: 2
- PT 715 - Teaching and Learning Credit Hours: 2

Third Year

Summer

- PT 765 - Clinical Administration and Marketing Credit Hours: 3
- PT 779 - Special Topics Credit Hours: 2
- PT 780 - Management of Complex Patients Credit Hours: 2
- PT 770 - Leadership and Professional Development Credit Hours: 2

Fall

- PT 751 - Capstone Project I Credit Hours: 2
- PT 722 - Clinical Experience II Credit Hours: 10

Winter

- PT 723 - Clinical Experience III Credit Hours: 10
- PT 752 - Capstone Project II Credit Hours: 2

Spring

- PT 724 - Clinical Experience IV Credit Hours: 10
- PT 753 - Capstone Project III Credit Hours: 2

Total Credits: 166 Credit Hours

Polysomnographic Technology Certificate

Curriculum

A certificate will be awarded to students completing 47 credit hours of course work in Polysomnography. This program is fully accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). Completion of the certificate will allow the graduate to sit for the national registry exam in Polysomnographic Technology.

Required Courses:

- BIO 200 - Medical Terminology Credit Hours: 2
- ECHO 227 - Basic ECG Recognition/Testing Credit Hours: 3
- PSG 211 - Fund of PSG & Patient Care Credit Hours: 3
- PSG 221 - Physiology of Sleep Credit Hours: 3
- PSG 231 - Sleep Disorders Pathology Credit Hours: 4
- PSG 246 - Sleep Disorders in Women Credit Hours: 3
- PSG 264 - Pediatric/Neonatal Psg Credit Hours: 4

- PSG 271A - Clinical Polysom Tech A Credit Hours: 6
- PSG 271B - Clinical Polysom Tech B Credit Hours: 6
- PSG 271C - Clinical Polysom Tech C Credit Hours: 6
  or
- PSG 291 - Clinical Sleep Educator Credit Hours: 3
- RCP 120 - Interventions in Gas Exchange Credit Hours: 4

Total for a Certificate in Polysomnographic Technology: 47 Credit Hours

Demonstrated computer proficiency is required by the Board of RPGST. After completion of the Web-based program, the student will have demonstrated computer proficiency.

The clinical Polysomnographic technology courses require placement in clinical sites. Students are responsible for selecting an accredited sleep disorder facility prior to admission into the program. Site agreements between Oregon Tech and the accredited facility must be in place for the student to begin these courses. On-site preceptors will work in conjunction with Oregon Tech faculty to ensure an excellent training experience.

Respiratory Care, BS

Curriculum

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Pre-Respiratory Care

Freshman Year

Fall

- BIO 231 - Human Anatomy/Physiology I Credit Hours: 4
- CHE 101 - Intro to General Chemistry Credit Hours: 3
- CHE 104 - Intro to General Chemistry Lab Credit Hours: 1

- MATH 111Z - Precalculus I: Functions Credit Hours: 4
  or
- STAT 243Z - Elementary Statistics I Credit Hours: 4

- WRI 121Z - Composition I Credit Hours: 4

Winter

- BIO 232 - Human Anatomy/Physiology II Credit Hours: 4

- PSY 201Z - Introduction to Psychology I Credit Hours: 4
  or
- PSY 202Z - Introduction to Psychology II Credit Hours: 4
  or
- PSY 203 - Psychology Credit Hours: 3

- COM 111Z - Public Speaking Credit Hours: 4
- Humanities Elective Credit Hours: 3
- Social Science Elective Credit Hours: 3

Spring

- BIO 200 - Medical Terminology Credit Hours: 2
- BIO 233 - Human Anatomy/Physiology III Credit Hours: 4
- WRI 227Z - Technical Writing Credit Hours: 4
- Humanities Elective Credit Hours: 3
- Social Science Elective Credit Hours: 3

Summer

- COM 205 - Intercultural Comm Credit Hours: 3
- Humanities Elective Credit Hours: 3
- Social Science Elective Credit Hours: 3
- Math/Science/Social Science Elective Credit Hours: 1

Professional Courses

Sophomore Year

Fall

- BIO 336 - Essentials of Pathophysiology Credit Hours: 3
- CHE 360 - Clinical Pharmacology/Hlth Prf Credit Hours: 3
- RCP 100 - Matriculation Credit Hours: 2
- RCP 231 - Pulmonary Physiology Credit Hours: 4

Winter

- BIO 234 - Microbiology Credit Hours: 4
- RCP 235 - Arterial Blood Gases Credit Hours: 3
- RCP 236 - Cardiopulmonary Dynamics Credit Hours: 3
- RCP 241 - Respiratory Gas Therapeutics Credit Hours: 4

Spring

- RCP 252 - Cardiopulmonary Pharmacology Credit Hours: 4
- RCP 336 - Hyperinflation Therapies Credit Hours: 3
- SPE 321 - Small Group/Team Comm Credit Hours: 3

Junior Year

Fall

- RCP 337 - Pulmonary Pathology Credit Hours: 4
- RCP 351 - Mechanical Ventilation I Credit Hours: 4
- RCP 388 - Adv Neonatal Respiratory Care Credit Hours: 4

Winter

- RCP 352 - Mechanical Ventilation II Credit Hours: 4
- RCP 375 - Pediatric Care Credit Hours: 4
- RCP 386 - Critical Care I Credit Hours: 4

Spring

- RCP 326 - Preparedness, Ethics, and Leadership Credit Hours: 2

- RCP 335 - Exercise Physiol and Education Credit Hours: 2
- RCP 345 - Cardiopulmonary Diag & Monitor Credit Hours: 3
- RCP 353 - Mechanical Ventilation III Credit Hours: 4
- RCP 387 - Critical Care II Credit Hours: 2

Senior Year

Summer

- RCP 350 - Introduction to Clinical Credit Hours: 9
- RCP 366 - Clinical Simulation Credit Hours: 3
- RCP 440 - Case Management I Credit Hours: 3

Fall

- RCP 441 - Case Management II Credit Hours: 3
- RCP 450 - Clinical Care I Credit Hours: 9

Winter

- RCP 442 - Case Management III Credit Hours: 3
- RCP 451 - Clinical Care II Credit Hours: 9

Spring

- RCP 452 - Clinical Care III Credit Hours: 12
- RCP 460 - Advanced Life Support Credit Hours: 2

Total for a B.S. in Respiratory Care: 186 Credit Hours

Respiratory Care, Degree Completion, BS

The Respiratory Care program offers a degree completion program for registered technologists in good standing, who wish to pursue a bachelor's degree in their field. The program is offered completely online. There is no on campus residency requirement.

Curriculum

Courses granted for Registered Respiratory Therapist (RRT)

- RCP 231 - Pulmonary Physiology Credit Hours: 4
- RCP 235 - Arterial Blood Gases Credit Hours: 3
- RCP 236 - Cardiopulmonary Dynamics Credit Hours: 3
- RCP 241 - Respiratory Gas Therapeutics Credit Hours: 4
- RCP 252 - Cardiopulmonary Pharmacology Credit Hours: 4
- RCP 336 - Hyperinflation Therapies Credit Hours: 3
- RCP 337 - Pulmonary Pathology Credit Hours: 4
- RCP 350 - Introduction to Clinical Credit Hours: 9

- RCP 351 - Mechanical Ventilation I Credit Hours: 4
- RCP 352 - Mechanical Ventilation II Credit Hours: 4
- RCP 386 - Critical Care I Credit Hours: 4
- RCP 450 - Clinical Care I Credit Hours: 9
- RCP 451 - Clinical Care II Credit Hours: 9
- RCP 452 - Clinical Care III Credit Hours: 12
- RCP 460 - Advanced Life Support Credit Hours: 2

Oregon Tech Degree Completion Courses

- BIO 336 - Essentials of Pathophysiology Credit Hours: 3
- CHE 360 - Clinical Pharmacology/Hlth Prf Credit Hours: 3
- COM 205 - Intercultural Comm Credit Hours: 3
- RCP 100 - Matriculation Credit Hours: 2
- RCP 326 - Preparedness, Ethics, and Leadership Credit Hours: 2
- RCP 335 - Exercise Physiol and Education Credit Hours: 2
- RCP 345 - Cardiopulmonary Diag & Monitor Credit Hours: 3
- RCP 353 - Mechanical Ventilation III Credit Hours: 4
- RCP 366 - Clinical Simulation Credit Hours: 3
- RCP 387 - Critical Care II Credit Hours: 2
- RCP 388 - Adv Neonatal Respiratory Care Credit Hours: 4
- RCP 440 - Case Management I Credit Hours: 3
- RCP 441 - Case Management II Credit Hours: 3
- RCP 442 - Case Management III Credit Hours: 3
- SPE 321 - Small Group/Team Comm Credit Hours: 3
- WRI 227Z - Technical Writing Credit Hours: 4
- Humanities Elective Credit Hours: 6
- Social Science Elective Credit Hours: 6

Prerequisite/Transfer Courses

- BIO 234 - Microbiology Credit Hours: 4
- BIO 200 - Medical Terminology Credit Hours: 2
- BIO 231 - Human Anatomy/Physiology I Credit Hours: 4
- BIO 232 - Human Anatomy/Physiology II Credit Hours: 4
- BIO 233 - Human Anatomy/Physiology III Credit Hours: 4
- CHE 101 - Intro to General Chemistry Credit Hours: 3
- CHE 104 - Intro to General Chemistry Lab Credit Hours: 1

- MATH 111Z - Precalculus I: Functions Credit Hours: 4
  or
- STAT 243Z - Elementary Statistics I Credit Hours: 4

- PSY 201Z - Introduction to Psychology I Credit Hours: 4
  or
- PSY 202Z - Introduction to Psychology II Credit Hours: 4
  or
- PSY 203 - Psychology Credit Hours: 3

- COM 111Z - Public Speaking Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
- WRI 122Z - Composition II Credit Hours: 4
- Humanities Elective Credit Hours: 3
- Social Science Elective Credit Hours: 3
- MATH/SCI/SS Elective Credit Hours: 1

Sleep Health, Clinical Sleep Health Option, AAS

Curriculum

All courses in the Certificate Program and all courses listed below are required to earn the A.A.S. degree:

- BIO 231 - Human Anatomy/Physiology I Credit Hours: 4
- BIO 232 - Human Anatomy/Physiology II Credit Hours: 4
- BIO 233 - Human Anatomy/Physiology III Credit Hours: 4
- STAT 243Z - Elementary Statistics I Credit Hours: 4

- PSY 201Z - Introduction to Psychology I Credit Hours: 4
  or
- PSY 202Z - Introduction to Psychology II Credit Hours: 4
  or
- PSY 203 - Psychology Credit Hours: 3

- COM 111Z - Public Speaking Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
- WRI 227Z - Technical Writing Credit Hours: 4
- Math/Science/Social Science Elective Credit Hours: 6
- Humanities Elective Credit Hours: 3
- Electives Credit Hours: 6

Total: 46 Credit Hours

Total for an A.A.S. Degree in Sleep Health, Option: Clinical Sleep Health: 91 Credit Hours

- Clinical Sleep Health Certificate Courses Credit Hours: 45
- Additional Courses Credit Hours: 46

Sleep Health, Polysomnographic Technology Option, AAS

Curriculum

All courses in the Certificate Program and all courses listed below are required to earn the A.A.S. degree:

Required Courses:

- BIO 231 - Human Anatomy/Physiology I Credit Hours: 4

- BIO 232 - Human Anatomy/Physiology II Credit Hours: 4
- BIO 233 - Human Anatomy/Physiology III Credit Hours: 4
- STAT 243Z - Elementary Statistics I Credit Hours: 4

- PSY 201Z - Introduction to Psychology I Credit Hours: 4
  or
- PSY 202Z - Introduction to Psychology II Credit Hours: 4
  or
- PSY 203 - Psychology Credit Hours: 3

- COM 111Z - Public Speaking Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
- WRI 227Z - Technical Writing Credit Hours: 4
- Math/Science/Social Science Elective Credit Hours: 6
- Humanities Elective Credit Hours: 3
- Electives Credit Hours: 3

Total: 43 Credit Hours

Total for an A.A.S. Degree Sleep Health Polysomnographic Technology Option: 90 Credit Hours

- Polysomnographic Technology Certificate Courses Credit Hours: 45
- Additional Courses Credit Hours: 43

Humanities and Social Sciences Department

Kyle Chapman, *Department Chair*

Kevin Garrett, *Program Director, Marriage and Family Therapy*
Alishia Huntoon, *Program Director, Extern Coordinator and Curriculum Coordinator, Applied Psychology - Online*
Maria Lynn Kessler, *Program Director Applied Psychology - Portland-Metro, Program Director Applied Behavior Analysis*

Trevor Petersen, Program Director, Applied Psychology - Klamath Falls

Sophie Nathenson, Program Director, Population Health Management – Portland Metro

Professors: B. Bunting, A. Huntoon, M. Kessler, R. Madden, S. Nathenson, M. Neupert, T. Petersen, Y. Rohwer
Associate Professors: K. Chapman, D. Bailey, K. Garrett
Assistant Professor: E. Clint

Degrees Offered

- Master of Science
  - Applied Behavior Analysis
  - Marriage and Family Therapy
- Bachelor of Science in:
  - Applied Psychology

- Population Health Management

Minors Offered

- Arts, Literature, and Philosophy (ALPs)
- Medical Sociology
- Psychology

Graduate Certificates Offered

- Applied Behavior Analysis (ABA)
- Integrated Behavioral Health & Medical Family Therapy

Module Offered

- Oregon Transfer (OTM)

The Humanities and Social Sciences Department offers undergraduate degrees in Applied Psychology and Population Health Management, graduate degrees in Applied Behavior Analysis and Marriage and Family Therapy, minors in Arts, Literature, and Philosophy (ALPs) Medical Sociology, and Psychology and a diverse collection of courses that meet the general education requirements for all students. In addition, these classes meet the lower-division requirements for college transfer students in many pre-professional programs. Our programs work closely with community partners to provide applied learning experiences for our students.

Department Goals and Objectives

1. To provide coursework in the humanities and social sciences in order to prepare students for employment in a rapidly changing global market.

2. To provide course offerings in multiculturalism and globalization.

3. To assist students in developing critical thinking and problem-solving abilities and to develop scientific knowledge and inquiry skills.

4. To assist students in developing ethical and cultural awareness.

5. To prepare students to be responsible citizens and lifelong learners.

6. To assist students in developing an aesthetic appreciation of the arts.

Applied Behavior Analysis

Degree Offered

- Master of Science in Applied Behavior Analysis (MS_ABA)

Certificate Offered

- Applied Behavior Analysis Graduate Certificate

MS-ABA

Oregon's first master's degree in applied behavior analysis, the MS-ABA curriculum focuses on providing a rigorous and thorough foundation in the science of behavior analysis. Students will be prepared to apply the principles of behavior analysis with diverse populations and in a wide variety of settings. Oregon Tech's MS-ABA prepares students to meet national certification and Oregon licensure requirements.

Courses are taught on the Klamath Falls and Portland-Metro campuses and are available to students everywhere via Zoom (a synchronous videoconferencing program). The use of Zoom technology provides an alternative to fully online, asynchronous programs for students in all areas of the state who prefer the real-time, face-to-face educational experience.

Applied Behavior Analysis

Applied Behavior Analysis (ABA) is an evidence-based, data-driven, systematic approach to intervention. Practitioners of ABA apply principles of reinforcement and focus on applications that improve the quality of life for individuals. Behavior analysts provide services in a variety of settings including schools, clinics, rehabilitation settings, residential facilities, social service agencies, mental health facilities, businesses, and client homes. They work with diverse populations including individuals and families affected by autism, developmental and intellectual disabilities, brain injury, mental health, geriatrics, child abuse, and neglect.

Program Mission

The mission of the MS-ABA program is to enable students to become effective and ethical behavior analysts. Students will be prepared to apply principles of behavior analysis to enhance the lives of individuals across a wide variety of settings. The program emphasizes a foundation in theory, concepts, and principles, development of basic behavior analytic skills, and an emphasis on professional and ethical responsibilities.

Program Objectives

1. To produce competent graduates who can work effectively and ethically across settings and with diverse populations

2. To enable students to obtain the knowledge and skills necessary for immediate employment in ABA and/or further graduate study in ABA and related areas

3. To prepare students for national certification and Oregon licensure as behavior analysts

Program Learning Outcomes

1. Students will understand the history and philosophy of behaviorism and basic theoretical approaches to understanding behavior.

2. Students will demonstrate competence in understanding how principles of behavior are discovered and described in the context of basic research.

3. Students will use technical terminology to explain and provide examples of the characteristics, concepts, principles, and processes of behavior analysis.

4. Students will demonstrate an understanding of, and ability to conduct behavioral assessments and functional behavioral analyses (FBA), and identify strengths and limitations of assessments and FBAs.

5. Students will demonstrate competence in the measurement of behavior, data collection, data analysis, and graphic representation.

6. Students will demonstrate competence in single-subject research designs and will identify and describe the advantages, disadvantages, and ethical considerations of research designs.

7. Students will critically evaluate research, analyze, and apply research findings to the practice of applied behavior analysis.

8. Students will explain the fundamental elements of behavioral interventions including behavior change strategies, procedures and systems, including identification of scientific evidence and methods for ensuring effective implementation and maintenance of behavioral programs.

9. Students will demonstrate an understanding of the legal constraints and ethical guidelines as pertinent to behavioral research and practice.

10. Students will demonstrate an understanding of the roles, functions, and responsibilities of professional behavior analysts, including relationships with professional organizations, and maintaining professional credentials.

11. Students will demonstrate the professional skills essential to developing professional and therapeutic relationships, set goals, maintain boundaries, evaluate client outcome, terminate treatment, and collaborate with other professionals.

12. Students will demonstrate competent oral and written communication.

Licensure and Certification

MS-ABA prepares students to meet national certification and Oregon licensure requirements. The program includes the Association of Behavior Analysis-International (ABAI) verified course sequence VCS) and practicum experience that meets national certification requirements for supervised experience

BCBA course sequence: the Association for Behavior Analysis-International has verified these courses as meeting the coursework requirements for eligibility to take the Board Certified Behavior Analyst® exam. (Applicants will have to meet additional requirements to qualify)

ABA Practicum: second year practicum placements provide students with the opportunity for supervised experience. Practicum placements may be paid or unpaid positions with approved ABA agencies and, in Klamath Falls, with Oregon Tech's BIG ABA clinic and local schools

Admissions

In order to ensure that students have the necessary preparation for success in the MS-ABA program, applicants must meet the Oregon Tech requirements for admission as well as the MS-ABA program specific requirements.

Applicants to the MS-ABA program at Oregon Tech shall meet the following requirements:

- Bachelor's Degree: Bachelor's degree from an accredited four-year institution in Psychology or a related field.
- GPA: Overall undergraduate GPA of 3.0 on a 4.0 scale and 3.0 for the last 90 quarter credits (60 semester) credits of coursework.
- Undergraduate Coursework: A grade of B or better in General Psychology, Research Methods, and Statistics.
- Academic Standing: Be in good academic standing at last college or university attended.

- Personal Statement and Resume: Applicants will be required to write a statement that addresses career goals and relevance to the program, evidence of aptitude for graduate work and evidence of potential for success in the field.
- Reference Letters: Applicants to the program will be required to provide three letters of reference (at least one academic and one professional) that address the applicant's preparation, abilities, and character.
- Background Check: Due to the sensitive nature of this program in regard to work with children and/or vulnerable populations, applicants must pass a criminal background check such as that conducted by the Oregon Department of Human Services (DHS).
- The department and university can grant conditional admission to candidates not meeting all of the minimum requirements.

Applied Behavior Analysis Graduate Certificate

The Certificate in Applied Behavior Analysis is a 33-credit, twelve-course sequence for individuals who wish to pursue additional coursework in Applied Behavior Analysis. The Association for Behavior Analysis International has verified this course sequence as meeting the course work requirements for eligibility to take the Board Certified Behavior Analyst® exam (applicants for the BCBA® exam will have to meet additional requirements to qualify).

Program Learning Outcomes

Upon completion of the Certificate in Applied Behavior Analysis, students will be able to:

1. Explain and provide examples of basic characteristics, principles, processes, and concepts of Applied Behavior Analysis

2. Select, design, and use appropriate methods to measure behavior

3. Display and interpret behavioral data in various formats

4. Evaluate behavioral interventions using appropriate experimental designs

5. Identify and describe the advantages, disadvantages, and ethical considerations of behavior analytic experimental designs

6. Read and interpret behavior analytic literature

7. Describe the major methods for conducting behavioral assessments and functional analyses, including strengths and limitations

8. Explain the fundamental elements of behavioral interventions including behavior change strategies, procedures and systems, including identification of scientific evidence

9. Describe methods for ensuring effective implementation and management of behavioral programs

10. Describe and provide examples of the ethical and professional responsibilities of behavior analysts and apply the BACB® Ethics Code for Behavior Analysts

Required Courses

ABA 511 - Foundations of ABA I Credit Hours: 3

ABA 512 - Foundations of ABA II Credit Hours: 3

ABA 521 - Ethics & Professional Issues I Credit Hours: 2

ABA 522 - Ethics & Profess Issues II Credit Hours: 3

ABA 524 – Observations and Measures Credit Hours: 2

ABA 525 - Research Methods in ABA Credit Hours: 3

ABA 526 - Behavioral Assessment I Credit Hours: 3

ABA 527 – Radical Behaviorism Credit Hours: 3

ABA 531 - Behavior Change I: Decreasing Challenging Behavior Credit Hours: 3

ABA 532 – Behavior Change II: Increasing & Maintaining Behavior Credit Hours: 3

ABA 546 – Behavioral Assessment II Credit Hours: 2

ABA 547 – Supervision & Personnel Management Credit Hours: 3

Marriage and Family Therapy

Degree Offered

- Master of Science in Marriage and Family Therapy (MS MFT)

Program Overview

The MFT Program at Oregon Tech is a full-time mental health graduate program with specialized training in systems, families, and relationships. Students are admitted to the program to begin coursework each fall. The MFT Program takes 2.75 years to successfully complete; part-time opportunities are available upon request. A year-long practicum experience begins in June between years two and three of the program. Courses are offered nights, weekends, and days in a variety of modalities, including: face-to-face in person, face-to-face via video conferencing, blended;,and fully online.

Rural Mental Health Care: Mental health care needs in rural areas, like southern Oregon, provide unique challenges that require unique approaches. MFT students develop the expertise and skills required to excel as rural mental health care providers.

Integrated Behavioral Healthcare and Medical Family Therapy: Medical health and mental health often influence one another. These not only affect the patient, but the patient's partner and family system as well. The MFT Program has embedded Integrated Behavioral Healthcare and Medical Family Therapy courses into the curriculum to help graduates develop the knowledge and skills required to become indispensable leaders in medical family therapy, who often work in medical settings and work closely and collaboratively with medical personnel. Those who graduate from the MS MFT Program earn a Graduate Certificate in Integrated Behavioral Healthcare and Medical Family Therapy.

Substance Use, Addiction, and Recovery: Mental health and addiction frequently co-exist. The MFT Program has integrated addiction courses into the curriculum in an effort to graduate competent trauma-informed, systemic clinicians with a strong foundation in addiction and recovery.

Program Mission Statement

Oregon Tech's Master of Science in Marriage and Family Therapy (MS-MFT) program prepares graduates to become skilled Marriage and Family Therapists with multicultural competence, expertise in rural mental health care, medical family therapy and substance use disorders and addictions treatment.

In strong collaboration with local child and family service organizations, health care and mental health care providers, the MS MFT program supports and strengthens mental health care and child and family services in the under-served rural areas that are in southern Oregon.

Program Objectives

1. Teach foundational knowledge related to human development, basic counseling skills, MFT theories and interventions, assessment and diagnosing, cultural humility, rural mental health care, and research.

2. Train trauma-informed and culturally competent marriage and family therapists.

3. Teach the integration of mental health and addiction and recovery in the etiology and treatment of co-occurring disorders.

4. Train marriage and family therapists in Integrated Behavioral Healthcare and Medical Family Therapy practices.

5. Increase awareness of issues of diversity, inclusion and social justice for the delivery of culturally-responsive and culturally-sensitive family therapy.

6. Promote the importance of ethical principles while upholding ethical standards that are consistent with the AAMFT Code of Ethics and the ACA Code of Ethics.

Program Learning Outcomes

1. Theoretical Knowledge
Competency: Apply principles and constructs of various human development and systems theories to marriage and family practice.

2. Clinical Knowledge
Competency: Apply family therapy skills and techniques to assess, structure and direct therapy, help clients to find solutions, identify strengths, and stay engaged in the therapeutic process.

3. Professional Identity and Ethics
Competency: Develop professional identity consistent with professional attitudes and behaviors outlined in the AAMFT Code of Ethics and applicable laws and regulations, with particular attention to cultural competence.

4. Cultural Competency
Competency: Demonstrate knowledge about systemically and culturally contextualized experiences of members of socio-cultural majority and minority groups, integrating that knowledge into ethical practice as marriage and family therapists.

5. Research
Competency: Analyze research and translate research findings for improvement of family therapy services using statistics and program evaluation methods.

6. Interpersonal Effectiveness
Competency: Achieve personal development and demonstrate positive relationship skills via effective communication, respect for others, and awareness of their impact on others.

Licensure and Credentialing

The Oregon Tech MS- MFT Program has a comprehensive curriculum, approved by the Oregon Board of Licensed Professional Counselors and Therapists. Graduates will meet curriculum requirements for licensing as Licensed Marriage and Family Therapists in the state of Oregon.

The MFT Program curriculum is designed to meet COAMFTE requirements.

The certification of alcohol and drug counselors in the state of Oregon is overseen by the Mental Health and Addiction Certification Board of Oregon (MHACBO). Graduates of the MFT Program at Oregon Tech will meet the educational requirements for credentialing as Certified Alcohol and Drug Counselors III (CADC III).

Career Opportunities

MFT's are trained in both psychotherapy and in family systems, which allows them to focus on understanding client symptoms in the context of the relational interactions that influence behavior. Family-based therapy is a powerful model for change. Research has shown that family-based interventions such as those utilized by MFTs are as effective as–and in many cases more effective than–alternative therapies, often at a lower cost. MFTs apply a holistic perspective to health care; they are concerned with the overall, long-term well-being of individuals and their families. Whoever the client, MFTs view problems from a relationship perspective. Settings in which MFT's become employed include, but are not limited to:

- Community mental health centers/agencies
- Child and family service agencies
- Private practice
- Religious and spiritual organizations
- Hospitals and medical settings
- School-based therapy settings
- Veterans services facilities
- Residential treatment facilities
- Addiction and recovery services

Admission

To ensure that students have the necessary preparation for success in the MS-MFT program, applicants must meet the Oregon Tech requirements for admission as well as the MS-MFT program specific requirements.

Applicants to the MS-MFT program at Oregon Tech shall meet the following requirements:

- Bachelor's Degree: Bachelor's degree from an accredited four-year institution in Psychology, Sociology, Anthropology, Human Development, Family Studies, or related field.
- GPA: Overall undergraduate GPA of 3.0 on a 4.0 scale and 3.0 for the last 90 quarter credits (60 semester) credits of coursework.
- Recommended undergraduate Coursework: A grade of B or better in Introduction to Psychology or Sociology, Research Methods, and Human Sexuality.
- Academic Standing: Be in good academic standing at last college or university attended.
- GRE Scores – GRE scores over five years old are not accepted.
- Personal Statement and Resume: Applicants will be required to write a statement that addresses career goals and relevance to the program, evidence of aptitude for graduate work and evidence of potential for success in the field.
- Reference Letters: Applicants to the program will be required to provide three letters of reference (at least one academic and one professional) that address the applicant's preparation, abilities, and character. Reference letters should not be written by family or close friends.

- Updated resume
- Background Check: Due to the sensitive nature of this program in regard to work with children, families, and/or vulnerable populations, applicants must pass a criminal background check after admission to the program.
- The department and university can grant conditional admission to candidates not meeting the minimum requirements.

Integrated Behavioral Healthcare & Medical Family Therapy Graduate Certificate

- Integrated Behavioral Healthcare & Medical Family Therapy Graduate Certificate is the only graduate certificate of its kind offered in the State of Oregon, the Graduate Certificate in Integrated Behavioral Healthcare & Medical Family Therapy at Oregon Tech will help meet the growing demand for qualified mental health professionals who are well-trained to work in integrated care settings, thus making students marketable and sought after, in addition to helping fill the need for health care professionals in southern Oregon and other underserved areas of the nation.

  The Graduate Certificate in Integrated Behavioral Healthcare & Medical Family Therapy is embedded within the M.S. Marriage and Family Therapy (MFT) Program's curriculum. The Graduate Certificate in Integrated Behavioral Healthcare & Medical Family Therapy is a 12-credit, four-course sequence that trains Oregon Tech's MS MFT students to specifically work within an integrated behavioral health model.

  Titles given to those with this specialized training are "Behavioral Health Clinician," "Behavioral Health Practitioner," "Integrated Behavioral Health Therapist," or "Medical Family Therapist." Those with this certificate will typically work in integrative healthcare or collaborative healthcare settings, wherein they collaborate closely with primary care and medical providers, as well as other helping disciplines, to help patients and their families. They typically work in hospitals, doctors' offices, other medical settings, private practice offices, and community mental health agencies.

  Students who complete the necessary coursework within the M.S. MFT Program at Oregon Tech, which means earning a grade of "A" or "B" in each course, will earn the Graduate Certificate in Integrated Behavioral Healthcare & Medical Family Therapy.

Program Learning Outcomes

Upon completion of the Graduate Certificate in Integrated Behavioral Healthcare and Medical Family Therapy, students will be able to:

1. Describe the multiple professional roles and functions of counselors across specialty areas, and their relationships with human service and integrated behavioral healthcare systems, including interagency and inter-organizational collaboration and consultation

2. Describe the roles and functions unique to Rural Mental Healthcare

3. Describe the roles and functions unique to Medical Family Therapy

4. Understand, describe, and apply biopsychosocial-spiritual approaches to healthcare.

5. Understand and describe how to work collaboratively as members of holistic medical teams, including how to refer, document, and communicate with healthcare professionals.

6. Understand and describe the bidirectional relationship between health and wellness on mental health functioning.

7. Demonstrate knowledge of the demands and needs of patients and families affected by acute and chronic illness.

8. Describe how working with families around their cultural and illness beliefs can help them.

9. Describe how therapeutic interventions can be informed by the family's developmental stage and the illness's psychosocial typology.

10. Articulate how cultural considerations must be practiced with patients and their families.

11. Understand and describe how the care of patients and families affected by acute and chronic illness impacts mental health and medical providers.

12. Describe how students' own experiences with health and illness may affect their clinical work.

13. Understand and describe how to facilitate communication between patients, families, and healthcare providers and invite coordination of services.

14. Identify the obstacles faced by individual and families residing in rural communities who require treatment for substance use and co-occurring disorders.

15. Explain the roles of Medical Family Therapists and Behavioral Health Clinicians in integrated SUDs treatment.

16. Articulate the professional ethics and standards of practice that apply to the systemic treatment of patients in medical settings, and in addiction and recovery in underserved rural communities.

Applied Psychology

Degree Offered

- Bachelor of Science in Applied Psychology

The Bachelor of Science in Applied Psychology prepares students for careers that apply the principles of psychology in diverse settings. The program provides a strong core curriculum in order for students to understand the foundations, theories, and principles of each area of psychology. As an applied program, both core and elective courses have a skills-based focus, allowing students to identify personal strengths, apply knowledge to real-world situations, create and implement new ideas, and ultimately be prepared to enter the workforce or continue on to graduate programs. A diverse offering of elective courses allows for students to focus on one or many areas of psychology, creating a unique opportunity for students to have an in-depth and personalized psychology degree. Students should consult with their advisor about specific interests for guidance regarding elective offerings. The Applied Psychology program also offers Capstone in Applied Psychology (CAP) courses. These CAP courses vary by term and give senior students the opportunity to synthesize knowledge learned throughout the degree program and apply core principles and theories of psychology to a selected topic. Through an Applied Experience, students have the opportunity to participate in externships, advanced research courses, or community work to prepare themselves for exciting and rewarding careers in psychology or for additional course work in graduate programs.

Mission Statement

The mission of the Applied Psychology Program is to enable students to apply core principles and theories of psychology and in-depth knowledge and skills in specific areas of psychology to communicate effectively, think critically, behave ethically and with cultural awareness, and work inter-personally with people from a wide variety of backgrounds.

Career Opportunities

Nationwide, college graduates with a bachelor's in psychology perform a wide variety of jobs or attend a wide variety of graduate programs. Graduates may work in counseling, education, social service, management, public relations, public health, and other fields. All of these jobs are potentially available to graduates of Oregon Tech's Applied Psychology Program. Many of Oregon Tech's Applied Psychology graduates have found jobs in Oregon and beyond. Human service employers include county and state agencies, as well as a wide range of private and non-profit agencies. Graduates of Oregon Tech's Applied Psychology Program benefit from the emphasis of hands-on training and applied experiences. Graduates have been employed in industry and are following management training programs. Graduates have also pursued various master's and doctoral programs in psychology, Counseling, social work, education, and related fields.

Program Educational Objectives

The educational objectives of the Applied Psychology program are:

- To produce graduates with effective interpersonal skills who can work in a variety of practical settings.
- To enable students to obtain the knowledge and skills necessary for immediate employment and/or graduate study in psychology and related areas.
- To provide opportunities for students who wish to apply psychology training to employment in business and human service related organizations or to prepare for graduate programs in related areas.
- To serve as a minor to complement other programs on campus.

Program Learning Outcomes

1. Students will demonstrate an understanding of and be able to use major research methodologies in psychology, including design, data analysis, and interpretation

2. Students will demonstrate knowledge and understanding of relevant ethical issues including a general understanding of the APA Code of Ethics.

3. Students will demonstrate basic counseling.

4. Students will demonstrate effective oral and written communication, including use of APA format.

Population Health Management

Degree Offered

- Bachelor of Science in Population Health Management

The Population Health Management (PHM) professions are complementary to clinical health care. Population Health Management is the field of translating health date into actionable programs and policies that improve the health of a group of people. The PHM B.S. degree program includes core courses in medical sociology, population health, applied psychology, management, mathematics, communication, and health sciences. Students may choose one of three emphases: Health Counseling/Outreach, Care Management and Coordination, and Applied Health Data Analytics.

The PHM program begins with a foundation in sociological theory, methods and research.

PHM graduates will gain competence in social theory, research methods, statistics, program planning and evaluation, and training in working with diverse and under-served populations.

Mission Statement

The mission of the PHM program is to provide students with the best possible training for careers that improve health and well-being. As the United States health care system changes to adapt to a new demographic and health landscape, increasing emphasis is placed on preventative medicine and health maintenance. PHM graduates will help fill this pressing need, providing much needed health resources to hospitals, schools, governmental and non-profit organizations, and local communities. Such work empowers individuals through health programs and policy, to create a healthier future for our nation.

Career Opportunities

Students who graduate from the PHM program may work in a wide variety of settings, all with the intent of improving the health and well-being of individuals and communities. Careers include health coaching, health research, community health program and evaluation, education, and patient advocacy. The PHM degree is an ideal preparation for graduate study in sociology, epidemiology, public health and medicine.

Program Learning Outcomes

1. Students will demonstrate knowledge of basic theoretical frameworks of sociology and demonstrate an ability to apply social theory to behavioral trends.

2. Students will demonstrate understanding of the impact of such factors as culture, ethnicity, nationality, age, gender, sexual orientation, mental and physical characteristics, family values, education, religious and spiritual values, and socio-economics status on the health and wellbeing of individuals; students will demonstrate cultural competency.

3. Students will demonstrate an understanding of the sociological research method, including an ability to organize, analyze, and present data.

4. Students will demonstrate an understanding of the roles, functions, and responsibilities of healthcare professionals and patients, including alternative approaches to healthcare.

5. Students will demonstrate an understanding of health behavior change and the ability to practice techniques to assist others with health-seeking behavior changes.

Oregon Transfer Module (OTM)

The Oregon Transfer Module (OTM) provides a one-year curriculum for students who plan to transfer to a State of Oregon community college or university. The module allows students to complete one year of general education foundation course work that is academically sound and will meet the admission standards of the receiving school. Students should work closely with an academic advisor to ensure selection of appropriate course work. Upon transfer, students may be required to complete additional course work in general education or an academic major specific to the receiving institution. Students who transfer prior to the completion of the Oregon Transfer Module will have their courses individually evaluated by the receiving institution. Students must complete a minimum of 45 credits of lower division course work with a grade of "C-" or better in order to receive credit for the Oregon Transfer Module. A minimum of 12 credits must be earned at Oregon Tech. The following courses may be used to complete the Oregon Transfer Module:

FOUNDATIONAL SKILLS

Writing and Oral Communication

Writing

- Two courses of college level composition

Oral Communication

- One course of Public Speaking or Communication

Mathematics

- One course of College level Math

INTRODUCTION TO DISCIPLINES

Arts and Letters/Humanities

- 3 courses of Arts and letters/Humanities
- Oregon Tech only allows 3 credits of performance or studio-based courses in this category

Science/Math/Computer Science

- 3 courses, including at least one biological or physical science with a laboratory

Social Science

- 3 courses of Social Science

Arts, Literature, and Philosophy (ALPs) Minor

The ALPs minor may be completed by students from any major and is especially recommended to students who want an opportunity to take a secondary focus in the Humanities during their time at Oregon Tech. This secondary focus will give them an opportunity to further explore their passions in the fields of Arts, Literature, and Philosophy while receiving official recognition of their newly-acquired expertise. The minor will give students the ability to take more Humanities classes that are relevant to their major program and their future career goals while instilling in them the knowledge and values associated with a traditional liberal arts education.

The minor requires 18 credit hours, including one of the required courses listed below (3 credits). The remaining courses must be chosen from the following prefixes: ART, HUM, LIT, PHIL. At least 12 of these 15 credit hours must be upper division courses. Transfer students must take at least 9 hours of their minor credits at Oregon Tech to qualify.

Requirements of the Minor

Required Courses

(3 credits, one from this set is required, but others can be counted toward electives, below):

HUM 105 - EAC: Text, Images, Games Credit Hours: 3

HUM 125 - Intro Tech, Soc, Value Credit Hours: 3

HUM 147 - West Cult in the Classical Age Credit Hours: 3 (f/k/a Introduction to Humanities I)

HUM 148 - West Cult in the Medieval Age Credit Hours: 3 (f/k/a Introduction to Humanities II)

HUM 149 - West Cult in the Modern Age Credit Hours: 3 (f/k/a Introduction to Humanities III)

LIT 253 - 19th Century American Lit Credit Hours: 3 (f/k/a American Literature I)

LIT 254 - 20th Century American Lit Credit Hours: 3 (f/k/a American Literature II)

LIT 255 - Contemporary American Lit Credit Hours: 3 (f/k/a American Literature III)

PHIL 105 - Introduction to Ethics Credit Hours: 3

PHIL 205 - Introduction to Logic Credit Hours: 3

Electives

(15 credits, at least 12 upper division):

ART 205 - Introduction to Watercolors Credit Hours: 3

ART 210 - Beginning Sculpture Credit Hours: 3

ART 220 - Basic Drawing Credit Hours: 3

ART 226 - Digital Photography Credit Hours: 3

ART 280 - Introductory Painting Credit Hours: 3

ART 282 - Intro to Acrylic Painting Credit Hours: 3

HUM 105 - EAC: Text, Images, Games Credit Hours: 3

HUM 125 - Intro Tech, Soc, Value Credit Hours: 3

HUM 147 - West Cult in the Classical Age Credit Hours: 3 (f/k/a Introduction to Humanities I)

HUM 148 - West Cult in the Medieval Age Credit Hours: 3 (f/k/a Introduction to Humanities II)

HUM 149 - West Cult in the Modern Age Credit Hours: 3 (f/k/a Introduction to Humanities III)

HUM 235 - Introduction to Film Credit Hours: 4

HUM 345 - Digital Culture and Society Credit Hours: 3

HUM 335 - Video Game Studies Credit Hours: 3

LIT 104 - Intro to Literature Credit Hours: 3

LIT 105 - Intro to Literature Credit Hours: 3

LIT 106 - Intro to Literature Credit Hours: 3

HUM 225 - Cont Thter: Ashland Plays Credit Hours: 3

LIT 235 - American Multicultural Lit Credit Hours: 3

LIT 253 - 19th Century American Lit Credit Hours: 3 (f/k/a American Literature I)

LIT 254 - 20th Century American Lit Credit Hours: 3 (f/k/a American Literature II)

LIT 255 - Contemporary American Lit Credit Hours: 3 (f/k/a American Literature III)

LIT 266 - Native American Lit & Film Credit Hours: 3

LIT 305 - Ecol Issues in Nature Writing Credit Hours: 3

LIT 315 - Science Fiction Lit & Flim Credit Hours: 3

LIT 325 - The Metropolis Credit Hours: 3

LIT 335 - Travel Lit: Fiction & Nonfict Credit Hours: 3

LIT 345 - Postapocalyptic Lit & Film Credit Hours: 3

LIT 367 - Art & Trash in Contemp Fiction Credit Hours: 3

LIT 373 - British Culture & Literature Credit Hours: 3

LIT 381 - Contemporary World Lit Credit Hours: 3

LIT 456 - Topics in Film Credit Hours: 3

PHIL 105 - Introduction to Ethics Credit Hours: 3

PHIL 205 - Introduction to Logic Credit Hours: 3

PHIL 215 - Ethical Theory Credit Hours: 3

PHIL 305 - Medical Ethics Credit Hours: 3

PHIL 315 - The Ethics of Emerging Tech Credit Hours: 3

PHIL 325 - Environmental Ethics Credit Hours: 3

PHIL 331 - Ethics in the Professions Credit Hours: 3

PHIL 335 - Philosophy of Science Credit Hours: 3

PHIL 342 - Business Ethics Credit Hours: 3

PHIL 405 - Advanced Logic Credit Hours: 3

Medical Sociology Minor

The Department of Humanities and Social Sciences offers a Medical Sociology Minor as a supplement to the Oregon Tech technical and applied degrees related to health, health care, management and social science. The minor offers courses covering the central topics of medical sociology, including the social factors in health and illness, the patient experience of illness, the role of health care professionals, and the interaction between health and society.

The Medical Sociology Minor is designed with the current employer demands and changes in health care organization in mind. Many employers within the health care field seek employees who are culturally competent, prepared to work with diverse populations, and are familiar with social determinants of health.

A minimum of 21 credits is required to complete the minor. Enrollment in the minor is through the Humanities and Social Sciences Department; contact the department chair or your advisor for more information.

Required Courses

SOC 204 - Intro to Sociology Credit Hours: 3 [a]

SOC 225 - Medical Sociology Credit Hours: 3

SOC 325 - Global Population Health Credit Hours: 3

OR

SOC 305 - Rural Health Credit Hours: 3

SOC 335 - Hlth Inequal & Cult Competency Credit Hours: 3

Choose three courses from the following:

Two of the three courses must be 300 or 400 level.

Lower Division

PHM 105 - Intro to Population Health Management Credit Hours: 3

SOC 205 - Curent Health Issues Credit Hours: 3

SOC 206 - Social Problems Credit Hours: 3

HIST 275 - History of Medicine Credit Hours: 3

Upper Division

BUS 316 - Total Quality Health Care Credit Hours: 3

PHIL 305 - Medical Ethics Credit Hours: 3

PHM 321 - Community Program Planning Credit Hours: 3

PHM 435 - Research Center Credit Hours: 3

SOC 305 - Rural Health Credit Hours: 3

SOC 345 - Aging and Society Credit Hours: 3

STAT 414 - Stat Methods in Epidemiology Credit Hours: 4

SOC 307 - Seminar Credit Hours: 3 will be considered as electives pending program director approval.

SOC 407 - Seminar Credit Hours: 3 will be considered as electives pending program director approval.

or

PSY 307 - Seminar Credit Hours: 3 will be considered as electives pending program director approval.

PSY 407 - Seminar Credit Hours: 3 will be considered as electives pending program director approval.

Psychology Minor

The psychology minor is open to all majors and is especially recommended for students majoring in allied health and medical sciences, management, and communication studies. The minor offers a variety of courses in psychology that can enhance knowledge. A minimum of 24 credits is required to complete the minor. Students should meet with a psychology advisor when choosing electives to fulfill the minor requirements. Enrollment in the minor is through the Humanities and Social Sciences Department; contact the department chair or your advisor for more information.

Requirements of the Minor

A minimum of 24 credits is required to earn the minor.

A minimum of 12 credits must be selected from upper-division coursework. Students must pay strict attention to prerequisite requirements.

Courses Required lower division courses (9 credits):

PSY 201 - Psychology

PSY 202 - Psychology

PSY 203 – Psychology

Additional Courses:

12 credits of upper division psychology courses

3 credits of lower or upper division courses

For all courses counted toward the Minor in Psychology, a letter grade of "C" or better is required to be awarded the minor.

At least 12 credits of courses in this minor must be completed at Oregon Tech.

Note: Not all courses are offered every term or every year.

Applied Behavior Analysis, Graduate Certificate

The Certificate in Applied Behavior Analysis is a 35-credit, seven-course sequence for individuals who wish to pursue additional coursework in Applied Behavior Analysis. Applicants will need to meet additional requirements before they can be deemed eligible to take the examination.

Required Courses (35 Credits)

- ABA 511 - Foundations of ABA Credit Hours: 5
- ABA 521 - Ethics Credit Hours: 5
- ABA 525 - Research Methods in ABA Credit Hours: 5
- ABA 527 - Behaviorism Credit Hours: 5 [b]
- ABA 531 - Decreasing Behavior Credit Hours: 5
- ABA 532 - Increasing Behavior Credit Hours: 5
- ABA 565 - Organizational Behavior Management Credit Hours: 5

Applied Behavior Analysis, MS

Curriculum

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

First Year

Fall

- ABA 511 - Foundations of ABA Credit Hours: 5 [b]
- ABA 502 - Intro to Training, Science, & Practice of ABA I Credit Hours: 1
- ABA 516 - ABA and Human Development Credit Hours: 3

Winter

- ABA 566 - ABA and Education Credit Hours: 3
- ABA 532 - Increasing Behavior Credit Hours: 5
- ABA 503 - Intro to Training, Science, Practice of ABA II Credit Hours: 1

Spring

- ABA 525 - Research Methods in ABA Credit Hours: 5
- ABA 504 - Intro to Training, Science & Practice of ABA Credit Hours: 1
- WRI 521 - Writing at the Grad Level Credit Hours: 3

Summer

- ABA 531 - Decreasing Behavior Credit Hours: 5
- ABA 535 - Special Topics in ABA Credit Hours: 3
- ABA 599 - Thesis Credit Hours: variable

Second Year

Fall

- ABA 527 - Behaviorism Credit Hours: 5
- ABA 581 - Clinical Skills I Credit Hours: 2
- ABA 599 - Thesis Credit Hours: variable

Winter

- ABA 521 - Ethics Credit Hours: 5
- ABA 582 - Clinical Skills II Credit Hours: 2
- ABA 599 - Thesis Credit Hours: variable

Spring

- ABA 565 - Organizational Behavior Management Credit Hours: 5
- ABA 583 - Clinical Skills III Credit Hours: 2
- ABA 599 - Thesis Credit Hours: variable

Total for a M.S. in Applied Behavior Analysis: 63 Credit Hours

Applied Psychology, BS

Degree Requirements

Students must meet the general education requirements, as stated below, and satisfactorily complete the courses listed in this curriculum to obtain the Bachelor of Science in Applied Psychology. A total of 180 credits are required for the degree. Students must complete a core program consisting of 71 credits; those core courses are PSY 201Z, PSY 202Z, PSY 203, PSY 215, PSY 216, PSY 301, PSY 311, PSY 312, PSY 313, PSY 317, PSY 330, PSY 331, PSY 334, PSY 335, PSY 339, PSY 455, PSY 475, PSY 255 or STAT 243Z or MATH 361, and 12 credits toward an Applied Experience. Any of the following can count toward the Applied Experience: PSY 314, PSY 420, PSY 421, PSY 422, PSY 423, PSY 445, and/or PSY 497. Additionally, students are required to take 54 elective credits, and should work with their advisors to select elective courses that align closely with their interests and career goals. Students electing to take externship are restricted to a maximum of 32 credits. All core courses must be completed with a minimum grade of "C" in order to earn the degree.

Curriculum

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- PSY 201Z - Introduction to Psychology I Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
- Laboratory Science Elective Credit Hours: 4

- Social Science Elective Credit Hours: 3

Winter

- PSY 202Z - Introduction to Psychology II Credit Hours: 4
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4
- Laboratory Science Elective Credit Hours: 4
- Social Science Elective Credit Hours: 3

Spring

- COM 111Z - Public Speaking Credit Hours: 4
- Laboratory Science Elective Credit Hours: 4
- Social Science Elective Credit Hours: 3
- Elective Credit Hours: 3

Sophomore Year

Fall

- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- PSY 215 - Abnormal Psychology I Credit Hours: 3
- SPE 321 - Small Group/Team Comm Credit Hours: 3
- Humanities Elective Credit Hours: 3
- Social Science Elective Credit Hours: 3

Winter

- STAT 243Z - Elementary Statistics I Credit Hours: 4
  or
- MATH 361 - Statistical Methods I Credit Hours: 4
- PSY 216 - Abnormal Psychology II Credit Hours: 3
- PSY 311 - Human Growth & Dev I Credit Hours: 3
- Communications Elective Credit Hours: 3
- Humanities Elective Credit Hours: 3

Spring

- PSY 301 - Basic Counseling Techniques Credit Hours: 4
- PSY 312 - Human Growth & Dev II Credit Hours: 3
- PSY 313 - Psych Research Methods I Credit Hours: 4
- PSY 317 - Field & Career Preparation Credit Hours: 3

Junior Year

Fall

- PSY 334 - Behavior Modification I Credit Hours: 4
- PSY 339 - Biopsychology Credit Hours: 3
- Electives Credit Hours: 9 [a]

Winter

- PSY 330 - Social Psychology I Credit Hours: 3
- PSY 335 - Behavior Modification II Credit Hours: 4
- Humanities Elective Credit Hours: 3

- Electives Credit Hours: 6 [a]
  and/or
- Applied Experience Credit Hours: 6 [b]

Spring

- PSY 331 - Social Psychology II Credit Hours: 3
- PSY 455 - Cognitive Psychology Credit Hours: 3

- Electives Credit Hours: 9 [a]
  and/or
- Applied Experience Credit Hours: 9 [b]

Senior Year

Fall

- PSY 475 - Capstone in Applied Psychology Credit Hours: 3

- Electives Credit Hours: 12 [a]
  and/or
- Applied Experience Credit Hours: 12 [b]

Winter

- Electives Credit Hours: 14 [a]
  or

- Applied Experience Credit Hours: 14 [b]

Spring

- Electives Credit Hours: 14 [a]
  or
- Applied Experience Credit Hours: 14 [b]

Note:

60 upper-division credits required

Total for a B.S. in Applied Psychology: 180 Credit Hours

[a] Electives – 55 credits
[b] Applied Experience – Student must complete at least 12 credits of the following: PSY 314, PSY 420, PSY 421, PSY 422, PSY 423, PSY 445, and PSY 497

Arts, Literature, and Philosophy (ALPs) Minor

The ALPs minor may be completed by students from any major and is especially recommended to students who want an opportunity to take a secondary focus in the Humanities during their time at Oregon Tech. This secondary focus will give them an opportunity to further explore their passions in the fields of Arts, Literature, and Philosophy while receiving official recognition of their newly-acquired expertise. The minor will give students the ability to take more Humanities classes that are relevant to their major program and their future career goals while instilling in them the knowledge and values associated with a traditional liberal arts education.

The minor requires 18 credit hours, including one of the required courses listed below (3 credits). The remaining courses must be chosen from the following prefixes: ART, HUM, LIT, PHIL. At least 12 of these 15 credit hours must be upper division courses. Transfer students must take at least 9 hours of their minor credits at Oregon Tech to qualify.

Requirements of the Minor

Required Course

(3 credits, one from this set is required, but others can be counted toward electives, below):

- HUM 105 - EAC: Text, Images, Games Credit Hours: 3
- HUM 125 - Intro Tech, Soc, Value Credit Hours: 3
- HUM 147 - West Cult in the Classical Age Credit Hours: 3 (f/k/a Introduction to Humanities I)
- HUM 148 - West Cult in the Medieval Age Credit Hours: 3 (f/k/a Introduction to Humanities II)
- PHIL 205 - Introduction to Logic Credit Hours: 3

Electives

(15 credits, at least 12 upper division):

- ART 205 - Introduction to Watercolors Credit Hours: 3
- ART 220 - Basic Drawing Credit Hours: 3
- ART 226 - Digital Photography Credit Hours: 3
- ART 282 - Intro to Acrylic Painting Credit Hours: 3
- HUM 105 - EAC: Text, Images, Games Credit Hours: 3
- HUM 125 - Intro Tech, Soc, Value Credit Hours: 3
- HUM 147 - West Cult in the Classical Age Credit Hours: 3 (f/k/a Introduction to Humanities I)
- HUM 148 - West Cult in the Medieval Age Credit Hours: 3 (f/k/a Introduction to Humanities II)
- HUM 235 - Introduction to Film Credit Hours: 4
- HUM 345 - Digital Culture and Society Credit Hours: 3
- HUM 335 - Video Game Studies Credit Hours: 3
- LIT 104 - Intro to Literature Credit Hours: 3
- LIT 105 - Intro to Literature Credit Hours: 3
- LIT 106 - Intro to Literature Credit Hours: 3
- LIT 305 - Ecol Issues in Nature Writing Credit Hours: 3

- LIT 315 - Science Fiction Lit & Film Credit Hours: 3
- LIT 325 - The Metropolis Credit Hours: 3
- LIT 345 - Postapocalyptic Lit & Film Credit Hours: 3
- PHIL 205 - Introduction to Logic Credit Hours: 3
- PHIL 215 - Ethical Theory Credit Hours: 3
- PHIL 305 - Medical Ethics Credit Hours: 3
- PHIL 331 - Ethics in the Professions Credit Hours: 3
- PHIL 342 - Business Ethics Credit Hours: 3

Cultural Competency, Certificate

This Cultural Competency Certificate provides training in cultural competency, the knowledge and skills needed to communicate and provide care to increasingly diverse populations. A specific focus is placed on health disparities, and the underlying social, cultural, economic, and policy related factors that contribute to health and illness. Skills emphasize the role of empathy and humility, and the practice of self-reflection in a process of lifelong learning.

To satisfy the program's 18-credit requirement, 15 credits must be earned by completing the program's core courses, the remaining 3 credits can be satisfied by completing any other 100- 200 level courses or 300-400 level courses among the program's electives.

Required Courses

- COM 205 - Intercultural Comm Credit Hours: 3
- PHIL 305 - Medical Ethics Credit Hours: 3
- SOC 205 - Current Health Issues Credit Hours: 3
- SOC 225 - Medical Sociology Credit Hours: 3
- SOC 305 - Rural Health Credit Hours: 3

Elective Courses:

- COM 346 - Health Communication Credit Hours: 3
- SOC 305 - Rural Health Credit Hours: 3
- SOC 325 - Global Population Health Credit Hours: 3

Ethics, Certificate

The Ethics Certificate program is designed to provide students with advanced ethical reasoning skills and an advanced ethically relevant knowledge base. By offering a variety of elective courses from multiple areas, the program is designed to be customizable and complementary to a student's major and future career path.

To satisfy the program's 18-credit requirement, 6 credits must be earned by completing both of the program's core courses, at least 3 credits must be earned by completing one of the elective courses within the program that is 300 level and has a PHIL prefix, and the remaining 9 credits can be satisfied by completing any other 100-200 level courses or 300-400 level courses among the program's electives. **Students must complete 18 credits to receive the certificate.**

Required Courses

- PHIL 205 - Introduction to Logic Credit Hours: 3
- PHIL 215 - Ethical Theory Credit Hours: 3

Elective Courses

- ANTH 452 - Globalization Credit Hours: 3
- BUS 226 - Business Law Credit Hours: 3
- BUS 447 - Controversial Issues in Mgmt Credit Hours: 3
- CE 308 - Princ of Professional Practice Credit Hours: 4
- COM 255 - Communication Ethics Credit Hours: 3
- HIST 275 - Intro to Hist of Medicine Credit Hours: 3
- HIST 356 - A History of Energy Credit Hours: 3
- HIST 452 - Globalization & Pac NW Credit Hours: 3
- HUM 125 - Intro Tech, Soc, Value Credit Hours: 3
- LIT 305 - Ecol Issues in Nature Writing Credit Hours: 3
- LIT 315 - Science Fiction Lit & Film Credit Hours: 3
- LIT 345 - Postapocalyptic Lit & Film Credit Hours: 3
- PHIL 225 - Bioethics Credit Hours: 3
- PHIL 255 - Ethics and Philosophy of Artificial Intelligence Credit Hours: 3
- PHIL 207 - Seminar Credit Hours: 6 *(Instructor approval required)*
- PHIL 305 - Medical Ethics Credit Hours: 3
- PHIL 307 - Seminar Credit Hours: 15 *(Instructor approval required)*
- PHIL 331 - Ethics in the Professions Credit Hours: 3
- PHIL 336 - Moral Standing and Moral Beings Credit Hours: 3
- PHIL 342 - Business Ethics Credit Hours: 3
- SOC 335 - Hlth Inequal & Cult Competency Credit Hours: 3

HSS General Education

Changes to the pre-requisites for HSS general education courses to conform with changes to Communication general education offerings

Integrated Behavioral Healthcare & Medical Family Therapy, Graduate Certificate

The Graduate Certificate in Integrated Behavioral Healthcare & Medical Family Therapy is a 12-credit, four course sequence that provides specialized training in systemic integrated behavioral healthcare.

Required Courses

- MFT 562 - Rural Considerations in MH and SUD Treatment and Prevention Credit Hours: 3
- MFT 566 - MedFT: Illness, Families, and Professionals Credit Hours: 3
- MFT 568 - MedFT in Action: Community-based Integration & Collaboration Credit Hours: 3
- MFT 510 - Introduction to MFT Credit Hours: 3

Marriage and Family Therapy, MS

Degree Requirements

The MS MFT requires successful completion of 90 credits of MS MFT graduate coursework. Courses are delivered in lockstep order, with prerequisites for each term offered in the previous term.

Required Coursework

- MFT 510 - Introduction to MFT Credit Hours: 3
- MFT 511 - Family Therapy Theory & Practice I Credit Hours: 3
- MFT 512 - MFT Theory and Practice II Credit Hours: 3
- MFT 515 - MFT Practicum
- MFT 516 - MFT Practicum
- MFT 517 - MFT Practicum
- MFT 520 - Counseling: Theory & Skills Credit Hours: 3
- MFT 521 - Child & Adolescent Therapy Credit Hours: 3
- MFT 522 - Couples Therapy Credit Hours: 3
- MFT 523 - Group Therapy Credit Hours: 3
- MFT 525 - Trauma and Recovery Credit Hours: 3
- MFT 531 - Child & Adolescent Psychopathology & Diagnosis Credit Hours: 3
- MFT 530 - Adult Psychopathology & Diagnosis Credit Hours: 3
- MFT 540 - Research Methods Credit Hours: 4
- MFT 550 - Professional Studies: Ethics Credit Hours: 3
- MFT 560 - Dev. Cultural Competencies Credit Hours: 3
- MFT 561 - Sexuality and Therapy Credit Hours: 3
- MFT 562 - Rural Considerations in MH and SUD Treatment and Prevention Credit Hours: 3
- MFT 564 - Substance Use & Co-Occuring Disorders Credit Hours: 3
- MFT 566 - MedFT: Illness, Families, and Professionals Credit Hours: 3
- MFT 570 - Internship I
- MFT 571 - Internship II
- MFT 572 - Internship III
- MFT 580 - Independent Study in Marriage and Family Therapy
- MFT 585 - Special Project or Training in Marriage and Family Therapy
- MFT 590 - Clinical Capstone I
- MFT 591 - Clinical Capstone II

Medical Sociology Minor

The Department of Humanities and Social Sciences offers a Medical Sociology Minor as a supplement to the Oregon Tech technical and applied degrees related to health, health care, management and social science. The minor offers courses covering the central topics of medical sociology, including the social factors in health and illness, the patient experience of illness, the role of health care professionals, and the interaction between health and society.

The Medical Sociology Minor is designed with the current employer demands and changes in health care organization in mind. Many employers within the health care field seek employees who are culturally competent, prepared to work with diverse populations, and are familiar with social determinants of health.

A minimum of 20 or 21 credits is required to complete the minor. Enrollment in the minor is through the Humanities and Social Sciences Department; contact the department chair or your advisor for more information.

Required Courses

- SOC 204 - Intro to Sociology Credit Hours: 3 [a]
- SOC 225 - Medical Sociology Credit Hours: 3
- SOC 325 - Global Population Health Credit Hours: 3

OR

- SOC 305 - Rural Health Credit Hours: 3
- SOC 335 - Hlth Inequal & Cult Competency Credit Hours: 3

Choose three courses from the following:

Two of the three courses must be 300 or 400 level.

- BUS 316 - Total Quality Health Care Credit Hours: 3
- HIST 275 - Intro to Hist of Medicine Credit Hours: 3
- PHIL 305 - Medical Ethics Credit Hours: 3
- PHM 105 - Intro to Population Health Management Credit Hours: 3
- PHM 321 - Community Program Planning Credit Hours: 3
- PHM 435 - Research Center Credit Hours: 3
- SOC 205 - Current Health Issues Credit Hours: 3
- SOC 206 - Social Problems Credit Hours: 3
- SOC 305 - Rural Health Credit Hours: 3
- SOC 345 - Aging and Society Credit Hours: 3
- STAT 414 - Stat Methods in Epidemiology Credit Hours: 4

- SOC 307 - Seminar Credit Hours: 15 will be considered as electives pending program director approval.
- SOC 407 - Seminar Credit Hours: 12 will be considered as electives pending program director approval.
  or
- PSY 307 - Seminar Credit Hours: 6 will be considered as electives pending program director approval.
- PSY 407 - Seminar Credit Hours: 12 will be considered as electives pending program director approval.

Population Health Management, BS

Degree Requirements

Students must meet the general education requirements, as stated elsewhere in this catalog, and satisfactorily complete the courses listed in this curriculum to obtain the Bachelor of Science in Population Health Management. A total of 181/182 credits are required for the degree. Students must complete a core program; in addition, students must complete an emphasis area (listed below). A total of 18 credits are needed for an emphasis; a minimum of 9 upper division credits are needed. Credits taken for externship or senior project do not count toward the emphasis. Students electing to take externship are restricted to a maximum of 32 credits. All core and emphasis courses must be completed with a minimum grade of "C" in order to earn the degree.

Population Health Management

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- HIST 275 - Intro to Hist of Medicine Credit Hours: 3
- PHM 105 - Intro to Population Health Management Credit Hours: 3
- SOC 204 - Intro to Sociology Credit Hours: 3
- WRI 121Z - Composition I Credit Hours: 4
- Humanities Elective Credit Hours: 3

Winter

- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- SOC 201 - Classical Sociol Theory Credit Hours: 3
- WRI 122Z - Composition II Credit Hours: 4
- Elective Credit Hours: 3

Spring

- SOC 206 - Social Problems Credit Hours: 3
- SOC 225 - Medical Sociology Credit Hours: 3
- COM 111Z - Public Speaking Credit Hours: 4
- WRI 227Z - Technical Writing Credit Hours: 4
- Humanities Elective Credit Hours: 3

Sophomore Year

Fall

- BUS 316 - Total Quality Health Care Credit Hours: 3
- PSY 201Z - Introduction to Psychology I Credit Hours: 4
  or
- PSY 202Z - Introduction to Psychology II Credit Hours: 4
  or
- PSY 203 - Psychology Credit Hours: 3
- SOC 205 - Current Health Issues Credit Hours: 3
- Laboratory Science Elective Credit Hours: 4
- Elective Credit Hours: 3

Winter

- MATH 361 - Statistical Methods I Credit Hours: 4
- PSY 201Z - Introduction to Psychology I Credit Hours: 4
  or
- PSY 202Z - Introduction to Psychology II Credit Hours: 4
  or
- PSY 203 - Psychology Credit Hours: 3

- SOC 345 - Aging and Society Credit Hours: 3
- Laboratory Science Elective Credit Hours: 4

Spring

- BUS 317 - Health Care Management Credit Hours: 3
- MATH 362 - Statistical Methods II Credit Hours: 4
- SOC 305 - Rural Health Credit Hours: 3
- Laboratory Science Elective Credit Hours: 4

Junior Year

Fall

- BUS 313 - Health Care Systems & Policy Credit Hours: 3
- GIS 103 - The Digital Earth Credit Hours: 3
  or
- MIS 255 - Health Informatics Cpts & Prct Credit Hours: 3
- SOC 301 - Soc Science Research Methods Credit Hours: 4
- SOC 325 - Global Population Health Credit Hours: 3
- Elective Credit Hours: 3

Winter

- GIS 134 - Geographic Information Systems Credit Hours: 3
  or
- MIS 275 - Intro to Relational Databases Credit Hours: 4
- SOC 302 - Soc Science Resrch Methods II Credit Hours: 4
- STAT 414 - Stat Methods in Epidemiology Credit Hours: 4
- WRI 410 - Proposal & Grant Writing Credit Hours: 3

Spring

- PHIL 305 - Medical Ethics Credit Hours: 3
- PHM 321 - Community Program Planning Credit Hours: 3
- SOC 335 - Hlth Inequal & Cult Competency Credit Hours: 3
- Elective Credit Hours: 6 [a]

Senior Year

Fall

- PHM 435 - Research Center Credit Hours: 3
- Externship or Emphasis Electives: 12

Winter

- PHM 435 - Research Center Credit Hours: 3
- Externship or Emphasis Electives: 12

Spring

- PHM 435 - Research Center Credit Hours: 3
- Externship or Emphasis Electives: 12

Total for a B.S. in Population Health Management: 181/182 Credit Hours

[a] See advisor
[b] To complete an emphasis, students must take courses from the appropriate list that follows. Credits taken for externship or senior project do not count as emphasis electives. A total of 18 credits are needed for an emphasis; a minimum of 9 upper division credits are needed
[c] No more than 32 credits of externship allowed for graduation without departmental approval

Psychology Minor

The psychology minor is open to all majors and is especially recommended for students majoring in allied health and medical sciences, management, and communication studies. The minor offers a variety of courses in psychology that can enhance knowledge. A minimum of 24 credits is required to complete the minor. Students should meet with a psychology advisor when choosing electives to fulfill the minor requirements. Enrollment in the minor is through the Humanities and Social Sciences Department; contact the department chair or your advisor for more information.

Requirements of the Minor

1. A minimum of 23 credits is required to earn the minor.
2. A minimum of 12 credits must be selected from upper-division coursework. Students must pay strict attention to prerequisite requirements.
3. Courses Required lower division courses (8 credits):
    1. PSY 201Z - Introduction to Psychology I
    2. PSY 202Z - Introduction to Psychology II

Additional Courses:

1. 12 credits of upper division psychology courses
2. 3 credits of lower or upper division courses
3. For all courses counted toward the Minor in Psychology, a letter grade of "C" or better is required to be awarded the minor.
4. At least 12 credits of courses in this minor must be completed at Oregon Tech.

Note:

Not all courses are offered every term or every year.

Social Determinants of Health, Certificate

The Social Determinants of Health Certificate enhances awareness of the impact of social environment on health, including the effect of discrimination, socioeconomic status, gender/sexuality, housing, employment, and adverse childhood experiences. An understanding of these determinants is critical to providing quality care to patients and community members, can improve employability, effective health promotion programs, and collaboration in healthcare, social services, public health, education, and business sectors.

To satisfy the program's 18-credit requirement, 15 credits must be earned by completing the program's core courses, the remaining 3 credits can be satisfied by completing any other 100-200 level courses or 300-400 level courses among the program's electives. **Students must complete 18 credits to receive the certificate.**

Required Courses

- SOC 205 - Current Health Issues Credit Hours: 3
- SOC 225 - Medical Sociology Credit Hours: 3
- SOC 305 - Rural Health Credit Hours: 3
- SOC 325 - Global Population Health Credit Hours: 3
- SOC 335 - Hlth Inequal & Cult Competency Credit Hours: 3

Elective Courses

- BIO 354 - Environmental Health Credit Hours: 3
- PHIL 305 - Medical Ethics Credit Hours: 3
- PHM 105 - Intro to Population Health Management Credit Hours: 3
- SOC 345 - Aging and Society Credit Hours: 3

Medical Imaging Technology Department

Rich Carson, *Department Chair*

Professors: R. Cole, R. Hoylman, J. Isaacson, D. McCollam, D. McDonnell, S. Schultz
Associate Professors: V. Bennett, R. Carson, T. Guthrie, B. Kowash
Assistant Professors: L. Jolly, C. Giacomelli
Instructors: W. Rogers
Participating Faculty: J. Steenport (Online PACs)

Degrees Offered

- Bachelor of Science in Diagnostic Medical Sonography
- Bachelor of Science in Echocardiography
- Bachelor of Science in Nuclear Medicine and Molecular Imaging Technology
- Bachelor of Science in Radiologic Science
- Bachelor of Science in Vascular Technology

Certificates Offered

- Picture Archiving and Communication Systems (PACS)

Accreditation

Oregon Institute of Technology is accredited by Northwest Commission on Colleges and Universities, 8060 165th Ave. NE, Suite 100, Redmond, WA 98052-3981, an institutional accrediting body recognized by the Council for Higher Education Accreditation and/or the Secretary of the U.S. Department of Education.

The Diagnostic Medical Sonography, Echocardiography and Vascular Technology programs are programmatically accredited through the Commission on Accreditation of Allied Health Education Programs (CAAHEP), upon review of the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS).

Echocardiography - Goal and Mission Statement

To prepare competent entry-level adult cardiac sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains

Diagnostic Medical Sonography - Goal and Mission Statement

To prepare competent entry-level general sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains

Vascular Technology - Goal and Mission Statement

To prepare competent entry-level vascular sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains

Bachelor of Science Program Descriptions

The Department of Medical Imaging Technology offers bachelor's degrees in five professional programs, which encompass the spectrum of imaging sciences. The curriculum of each bachelor's degree program provides the technical, scientific, and communication skills essential for the application of learned concepts. Each program prepares students for immediate employment and for successfully passing the national and state registry examinations in each field.

Diagnostic Medical Sonography (also called sonography, ultrasound, or general ultrasound)

Sonography uses high frequency sound wave imaging and Doppler instrumentation to aid in the diagnosis of pathology and disease processes. The sonographer gathers pertinent patient history, creates images, and submits preliminary findings to the reading physician. Common exams include: obstetric, gynecological, peritoneal, retroperitoneal, pelvic, thoracic, musculoskeletal, extremity, neurological, and superficial procedures. Invasive applications are also performed in most clinical settings.

Program Learning Outcomes

• Effective oral, visual, and written communication skills.

• The ability to work effectively in teams.

• The ability to provide basic patient care and comfort while utilizing ethical, professionalism and HIPAA guidelines.

• Knowledge and understanding of human gross and sectional anatomy relative to normal and abnormal sonographic imaging.

• Knowledge and understanding of human physiology, pathology and pathophysiology.

• Knowledge and understanding of ultrasound physical principles and instrumentation.

• Knowledge of sonographic biological effects, proper application of sonographic instrumentation relative to imaging and image quality.

• Appropriate ergonomic scanning applications.

• An understanding of diverse cultural and humanistic traditions in the global society.

DMS Program Educational Objectives

The following are the faculty expectations of graduates from the Diagnostic Medical Sonography program:

• Employ diagnostic sonographic imaging techniques, critical thinking skills, effective communication skills, and professional judgment.

• Effectively apply ergonomically correct scanning techniques.

• Successfully complete nationally recognized credential examinations.

• Develop a dedication to independent life-long learning and professional contributions.

Echocardiography

Echocardiography is a safe method of obtaining ultrasound images for diagnosis of cardiac pathology in adult and pediatric patient populations. Echocardiographers perform imaging exams that include acquisition of detailed images of heart anatomy, evaluation of pathologies, and measurement/analysis of hemodynamic flow patterns within the heart and the heart's major vessels. The Echocardiographer prepares the study images and reports pertinent findings to the interpreting cardiologist as part of the diagnostic process.

Program Learning Outcomes

Graduates from this program will be able to:

1. Demonstrate the ability to communicate effectively in oral, written and visual forms.

2. Demonstrate the ability to work effectively in teams.

3. Demonstrate an ability to provide basic patient care and comfort.

4. Demonstrate professional judgment, discretion, and ethics.

5. Demonstrate knowledge and understanding of human gross anatomy, sectional anatomy, and normal

and abnormal cardiovascular anatomy.

6. Demonstrate knowledge and understanding of cardiovascular physiology, pathology, and

pathophysiology.

7. Demonstrate knowledge and understanding of cardiovascular physical principles and

instrumentation.

8. Demonstrate knowledge and understanding of clinical echocardiographic diagnostic procedures and

testing.

9. Demonstrate an understanding of diverse cultural and humanistic traditions in the global society.

Echocardiography Program Educational Objectives

1. The program prepares students to utilize diagnostic techniques, sound judgment and good decision

making to provide patient services.

2. The program communicates the importance of being credentialed (RDCS, RCS) in the profession of echocardiography.

3. The program prepares students who think critically, communicate effectively, and exemplify professional ethics.

4. The program conveys the importance of becoming life-long learners and responsible citizens.

Nuclear Medicine and Molecular Imaging Technology

Nuclear Medicine and Molecular Imaging Technology is an imaging science that demonstrates pathology through physiologic processes using radioactive compounds. Sometimes these data are fused with anatomical data such as Computed Tomography (CT) and Magnetic Resonance Imaging (MRI). This branch of imaging science has been in existence for over four decades. This training also prepares the future Nuclear Medicine Technologist with skills in CT, MRI, PET/ CT, and Spect/CT.

Program Learning Outcomes

Students completing the Nuclear Medicine and Molecular Imaging Technology program should possess the following abilities, measured by observation throughout the students' educational experience at Oregon Tech:

1. The student will apply knowledge, judgement and critical thinking when problem solving
2. The student will demonstrate ethical reasoning through a variety of scenarios in lecture and lab, and adherence to professional responsibilities identified on their Professional Evaluation performed at the end of each term.
3. The student will demonstrate teamwork by contributing equally to team goals, and interacting with peers and faculty in a respectful and supportive manner.
4. The student will demonstrate effective communication with other students, staff, and faculty in a respectful manner and at an appropriate time.
5. The student demonstrate emotional intelligence competencies when working with others.

Radiologic Science

This program has been in existence at Oregon Tech for 70 years. The training prepares the future radiologic technologist with a wide variety of skills, including radiography, fluoroscopy, mobile and surgical radiography, Computed Tomography (CT), Mammography, Cardiovascular Interventional Technology (CIT), Quality Assurance, and imaging department management.

Program Learning Outcomes

Students completing the Radiologic Science program should possess the following abilities and are measured by observation throughout the students' educational experience at Oregon Tech:

- An ability to practice organizational skills using prioritization.
- An ability to demonstrate quality work in the didactic and laboratory settings.
- An ability to comprehend radiologic theory and principles and apply them in the laboratory setting.
- An ability to work in a stressful environment and perform effectively in under pressure.
- An ability to use good judgement and critical thinking skills.
- An ability to demonstrate confidence in their knowledge and skills.
- An ability to demonstrate attention to details and follow instructions.

- An ability to practice initiative.
- An ability to approach tasks and duties with a positive attitude.
- An ability to accept and apply constructive criticism.
- An ability to be punctual and reliable.
- An ability to practice positive interpersonal skills with faculty, classmates, other professionals.
- An ability to effectively work in a team setting.

Program Educational Objectives

The following are the faculty expectations of graduates from the Radiologic Science program:

- Be compassionate, caring healthcare professionals.
- Be eligible, well prepared, and able to pass the ARRT credentialing examination.
- Have immediate job placement potential within six months of graduation.
- Work in advanced imaging fields and complete advanced imaging registries.

Vascular Technology

Vascular technology is a profession which utilizes ultrasound, Doppler, color Doppler and various physiologic testing procedures to aid in the diagnosis of disease of the vascular system. Vascular technologists conduct patient interviews, compile health histories and determine risk assessments pertaining to vascular disease. The technologists choose appropriate testing modalities and provide referring physicians with preliminary interpretation of results.

Program Learning Outcomes

1. The ability to communicate effectively in oral, written and visual forms.
2. The ability to work effectively in teams.
3. An ability to provide basic patient care and comfort.
4. Professional judgment and discretion including ethics.
5. Knowledge and understanding of human gross anatomy sectional anatomy and normal and abnormal vascular anatomy.
6. Knowledge and understanding of vascular physiology, pathology, and pathophysiology.
7. Knowledge and understanding of vascular physical principles and instrumentation.
8. Knowledge and understanding of clinical vascular diagnostic procedures and testing
9. An understanding of diverse cultural and humanistic traditions in the global society.

Facilities

Oregon Tech's state-of-the-art imaging equipment allows medical imaging students to become familiar with a wide variety of imaging procedures like those performed in most medical centers. Students may also spend significant time at Sky Lakes Medical Center where they will gain experience directly with patients, prior to externship. This experience plus the academic coursework prepares the student well for the medical imaging professions.

Externships

All five of the bachelor's degree programs in medical imaging culminate in a senior year of clinical externship at a medical center. The 11-month externship is spent at the affiliate institution under the supervision of a clinical

instructor. Students do not have classes on the Oregon Tech campus during this year. The location of externship will be determined by a lottery conducted by medical imaging faculty. All students will be guaranteed an externship subject to the following:

1. All academic requirements must be met before externship assignments will be made.
2. Students must satisfy Oregon requirements for clinical placement as listed in Oregon Administrative Rules (OAR 409-030-0100 to 409-030-0250).

Upon successful completion of the externship year, imaging students will be eligible to sit for the professional registry pertaining to their degree.

Admission Requirements

Pre-Medical Imaging Technology: Freshman Year

Enrollment is open to all students who meet the general entry requirements to the university. Students will be listed as Pre-Medical Imaging Technology (Pre-MIT) students. Admittance to the Oregon Tech Pre-MIT Program does not mean the student has been accepted into a specific MIT program.

Program Selection Criteria

Selection criteria are available on the MIT website at www.oit.edu/mit. Students must complete all the courses, including general education, in the specified freshman year (pre-medical imaging) curriculum. Selection will be made at the end of the spring term of the pre-medical imaging technology year. The number of students selected each year will be determined by the number of qualified applicants, and by the availability of clinical sites. Therefore, the number of qualified applicants may exceed the number of spaces available. Prior acceptance does not guarantee future acceptance into any MIT Program. Students must reapply yearly.

Selection will be based upon the following criteria and point system:

1. **GPA:** Students must have a total of a 2.95 **weighted** GPA (though a 3.0 or higher is highly recommended), in the following courses (or equivalent transfer courses) to apply to one of the five MIT Programs.
    - BIO 200 - Medical Terminology
    - BIO 231 - Human Anatomy/Physiology I
    - BIO 232 - Human Anatomy/Physiology II
    - BIO 233 - Human Anatomy/Physiology III
    - CHE 101 - Intro to General Chemistry
    - CHE 104 - Intro to General Chemistry Lab
    - MATH 112Z - Precalculus II: Trigonometry
    - MIT 103 - Intro to Med Imaging

    GPA points are calculated as GPA x 10. (For example, a 3.5 GPA x 10 = 35). To determine how to calculate weighted GPA, see website at www.oit.edu/mit.
2. All applicants must attend an Oregon Tech hosted selection event at the end of spring term. Several activities are conducted during this event to allow students to demonstrate communication skills, and professionalism. Faculty from the MIT Department and industry leaders are present at the selection event to evaluate those skills.

Application Requirements

Applications are available on the MIT website at www.oit.edu/mit.

Applications are due spring term. Incomplete applications will not be accepted. An application fee of $75 is required. There are no refunds of the application fee. Repeat applicants must follow the same procedures as first-time applicants.

The application form allows ranking of programs by choice (first and second) and only one application per student will be accepted.

Transfer Students

Transfer students who meet the academic requirements of the pre-medical imaging technology year, will not find a course at another college which substitutes for MIT 103 - Intro to Med Imaging. This course may be taken as a distance learning course. It must be completed in the summer, fall, winter or spring term prior to the application to a professional program. The MIT application is available at www.oit.edu/mit. Transfer students must apply to both Oregon Tech and MIT using two separate application processes.

Graduation Requirements

All credits listed in the curriculum for the catalog year a student begins a program must be fulfilled.

Students must maintain a 2.00 GPA to be eligible for graduation. In addition, a final grade of "C" or better must be earned in all professional courses (DMS, ECHO, NMT, RDSC, VAS), and science/mathematics courses to continue in the program. A final grade of "C" or better must be also earned in all required communications courses by the end of the junior year to continue on in the program. Once the student is admitted into a professional program as a sophomore, all curricular requirements must be met within four academic years. Rare exceptions to the time limitation will be considered on a case by case basis, at the discretion of the re-admittance committee described below. When a student unsuccessfully attempts a programmatic course fall term, sophomore year, they must reapply to the program or another imaging program. If the student has an unsuccessful attempt subsequent to fall term sophomore year the student must submit a letter of intent to the program director of the specific program they seek to re-enter. The MIT re-admittance committee will determine if another opportunity will be granted. If re-admittance is approved additional requirements will be prescribed by the MIT committee.

Other requirements such as auditing courses, attending labs, and/or remedial work will be specified by the committee. The student must remain in compliance with committee's recommendations and requirements to satisfy degree progress. When a student attempts unsuccessfully a second time in the same or a different programmatic course, they are terminated from that program. Additionally, if a student receives a "D," "F" or "W" in two or more programmatic courses in one term, they will be dismissed from that program. The student may apply for admittance to a second imaging program under the same application criteria as other applicants. After two unsuccessful attempts to complete two different programs, the student may not apply for a third program.

Career Opportunities

There continues to be a high demand for bachelor's degree prepared medical imaging professionals. Graduates have excellent opportunities for employment in hospitals, clinics, private practice, state and federal agencies, and with appropriate experience, in supervision, education and industry.

Degree Completion Programs

The Diagnostic Medical Sonography, Echocardiography, Radiologic Science and Vascular Technology programs offer degree completion programs for registered technologists (in good standing) who wish to pursue a bachelor's degree in their field. These programs are fully online. There is no requirement to come to campus.

Diagnostic Medical Sonography, BS

Cross-sectional anatomy correlated with computer tomography, ultrasonography, and magnetic resonance imaging.

Curriculum

Required courses and recommended terms during which they should be taken:

Pre-Medical Imaging Technology

Freshman Year

Fall

- BIO 231 - Human Anatomy/Physiology I Credit Hours: 4
- CHE 101 - Intro to General Chemistry Credit Hours: 3
- CHE 104 - Intro to General Chemistry Lab Credit Hours: 1
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- MIT 103 - Intro to Med Imaging Credit Hours: 3

Winter

- BIO 232 - Human Anatomy/Physiology II Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
- Humanities Elective Credit Hours: 3
- Social Science Elective Credit Hours: 3

Spring

- BIO 200 - Medical Terminology Credit Hours: 2
- BIO 233 - Human Anatomy/Physiology III Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4
- Social Science Elective Credits: 3

Professional Courses

Sophomore Year

Fall

- DMS 223 - App of Abdominal Sonogr I Credit Hours: 3
- DMS 252 - Sophomore Lab I Credit Hours: 1
- MIT 225 - Patient Care in Sonography Credit Hours: 3
- PHY 217 - Physics of Med Imaging Credit Hours: 3
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4
- Social Science Elective Credit Hours: 3

Winter

- DMS 224 - App of Abdominal Sonogr II Credit Hours: 3
- DMS 253 - Sophomore Lab II Credit Hours: 1
- MIT 231 - Sonographic Princ & Instru I Credit Hours: 4
  Humanities Elective Credit Hours: 3
- Communication Elective Credit Hours: 3

Spring

- DMS 225 - App of Abdominal Sonogr III Credit Hours: 3
- DMS 234 - Pelvic Sonography Credit Hours: 3
- DMS 254 - Sophomore Lab III Credit Hours: 1
- MIT 232 - Sonographic Princ & Instru II Credit Hours: 4
- Social Science Elective Credit Hours: 3

Junior Year

Fall

- BIO 335 - Cross-Sectional Anatomy Credit Hours: 3
- DMS 346 - Musculoskeletal Sonography Credit Hours: 3
- DMS 352 - Junior Lab I Credit Hours: 1
- DMS 365 - Sonographic Pathology Credit Hours: 3
- DMS 337 - Breast Sonography Credit Hours: 3

Winter

- BUS 316 - Total Quality Health Care Credit Hours: 3
  or
- BUS 317 - Health Care Management Credit Hours: 3
  or
- BUS 313 - Health Care Systems & Policy Credit Hours: 3
- DMS 316 - Survey of Vascular Tech Credit Hours: 3
- DMS 353 - Junior Lab II Credit Hours: 1
- DMS 370 - Obstetrical Sonography Credit Hours: 3
- DMS 375 - Fetal Echocardiography Credit Hours: 3

Spring

- DMS 343 - Neonatal/Pediatric Sonography Credit Hours: 3
- DMS 354 - Junior Lab III Credit Hours: 1
- DMS 373 - Obstetrical Pathology Credit Hours: 3
- DMS 388 - Externship Preparation Credit Hours: 2
- Humanities Elective Credit Hours: 3
- Communications Elective Credit Hours: 3

Senior Year

Summer

- DMS 430 - DMS Externship Credit Hours: 15

Fall

- DMS 430 - DMS Externship Credit Hours: 15

Winter

- DMS 430 - DMS Externship Credit Hours: 15

Spring

- DMS 430 - DMS Externship Credit Hours: 15

Total for a B.S. in Diagnostic Medical Sonography: 189 Credit Hours

Diagnostic Medical Sonography, Degree Completion, BS

Courses Granted for Registry

- DMS 223 - App of Abdominal Sonogr I Credit Hours: 3
- DMS 224 - App of Abdominal Sonogr II Credit Hours: 3
- DMS 225 - App of Abdominal Sonogr III Credit Hours: 3
- DMS 234 - Pelvic Sonography Credit Hours: 3
- DMS 252 - Sophomore Lab I Credit Hours: 1
- DMS 253 - Sophomore Lab II Credit Hours: 1
- DMS 254 - Sophomore Lab III Credit Hours: 1
- DMS 370 - Obstetrical Sonography Credit Hours: 3
- DMS 388 - Externship Preparation Credit Hours: 2 (waived)
- DMS 430 - Diagnostic Medical Sonography Externship Credit Hours: 45
- MIT 103 - Intro to Med Imaging Credit Hours: 3
- MIT 231 - Sonographic Princ & Instru I Credit Hours: 4
- MIT 232 - Sonographic Princ & Instru II Credit Hours: 4
- PHY 217 - Physics of Med Imaging Credit Hours: 3

Completion Credits

- BIO 335 - Cross-Sectional Anatomy Credit Hours: 3

- BUS 313 - Health Care Systems & Policy Credit Hours: 3
  or
- BUS 316 - Total Quality Health Care Credit Hours: 3
  or
- BUS 317 - Health Care Management Credit Hours: 3

- DMS 316 - Survey of Vascular Tech Credit Hours: 3 [a]
- DMS 337 - Breast Sonography Credit Hours: 3
- DMS 343 - Neonatal/Pediatric Sonography Credit Hours: 3

- DMS 346 - Musculoskeletal Sonography Credit Hours: 3
- DMS 352 - Junior Lab I Credit Hours: 1
- DMS 353 - Junior Lab II Credit Hours: 1
- DMS 354 - Junior Lab III Credit Hours: 1
- DMS 365 - Sonographic Pathology Credit Hours: 3
- DMS 373 - Obstetrical Pathology Credit Hours: 3
- DMS 375 - Fetal Echocardiography Credit Hours: 3
- DMS 430A - DMS Externship Credit Hours: 8
- DMS 430B - DMS Externship Credit Hours: 7
- Communication Elective Credit Hours: 6

Transfer Courses

- BIO 200 - Medical Terminology Credit Hours: 2
- BIO 231 - Human Anatomy/Physiology I Credit Hours: 4
- BIO 232 - Human Anatomy/Physiology II Credit Hours: 4
- BIO 233 - Human Anatomy/Physiology III Credit Hours: 4
- CHE 101 - Intro to General Chemistry Credit Hours: 3
- CHE 104 - Intro to General Chemistry Lab Credit Hours: 1
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- MATH 112Z - Precalculus II: Trigonometry Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4
- Humanities Electives Credit Hours: 9
- Social Science Electives Credit Hours: 12
- Elective Credit Hours: 2

Echocardiography, BS

Echocardiography is a safe method of obtaining ultrasound images for diagnosis of cardiac pathology in adult and pediatric patient populations. Echocardiographers perform imaging exams that include acquisition of detailed images of heart anatomy, evaluation of pathologies, and measurement/analysis of hemodynamic flow patterns within the heart and the heart's major vessels. The Echocardiographer prepares the study images and reports pertinent findings to the interpreting cardiologist as part of the diagnostic process.

Curriculum

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Pre-Medical Imaging Technology

Freshman Year

Fall

- BIO 231 - Human Anatomy/Physiology I Credit Hours: 4
- CHE 101 - Intro to General Chemistry Credit Hours: 3
- CHE 104 - Intro to General Chemistry Lab Credit Hours: 1
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- MIT 103 - Intro to Med Imaging Credit Hours: 3

Winter

- BIO 232 - Human Anatomy/Physiology II Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
- Humanities Elective Credit Hours: 3
- Social Science Elective Credit Hours: 3

Spring

- BIO 200 - Medical Terminology Credit Hours: 2
- BIO 233 - Human Anatomy/Physiology III Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4
- Social Science Elective Credits: 3

Professional Courses

Sophomore Year

Fall

- BIO 220 - Cardiovascular Physiology Credit Hours: 4
- ECHO 231 - Echocardiography I Credit Hours: 4
- PHY 217 - Physics of Med Imaging Credit Hours: 3
- MIT 225 - Patient Care in Sonography Credit Hours: 3

Winter

- BIO 346 - Pathophysiology I Credit Hours: 3
- ECHO 232 - Echocardiography II Credit Hours: 4
- MIT 231 - Sonographic Princ & Instru I Credit Hours: 4
- Social Science Elective Credit Hours: 3

Spring

- BIO 347 - Pathophysiology II Credit Hours: 3
- ECHO 320 - Cardiographic Methods Credit Hours: 3
- ECHO 332 - Invasive Cardiology Credit Hours: 3
- MIT 232 - Sonographic Princ & Instru II Credit Hours: 4

- WRI 122Z - Composition II Credit Hours: 4
  OR
- WRI 227Z - Technical Writing Credit Hours: 4

Junior Year

Fall

- BUS 316 - Total Quality Health Care Credit Hours: 3
  OR
- BUS 317 - Health Care Management Credit Hours: 3
  OR
- BUS 313 - Health Care Systems & Policy Credit Hours: 3
- ECHO 333 - Echocardiography III Credit Hours: 4
- ECHO 321 - Stress & Transesophageal Echo Credit Hours: 3
- Humanities Elective Credit Hours: 3
- Communication Elective Credit Hours: 3

Winter

- CHE 360 - Clinical Pharmacology/Hlth Prf Credit Hours: 3
- ECHO 325 - Pediatric Echo Credit Hours: 3
- ECHO 376 - Survey of Vascular Testing Credit Hours: 3
- Social Science Elective Credit Hours: 3

Spring

- ECHO 334 - Echocardiography IV Credit Hours: 4
- ECHO 385 - Echo Lab Management Credit Hours: 3
- ECHO 388 - Externship Preparation Credit Hours: 2
- Communication Elective Credit Hours: 3
- Humanities Elective Credit Hours: 3

Senior Year

Summer

- ECHO 420 - Echo Externship Credit Hours: 15

Fall

- ECHO 420 - Echo Externship Credit Hours: 15

Winter

- ECHO 420 - Echo Externship Credit Hours: 15

Spring

- ECHO 420 - Echo Externship Credit Hours: 15

Total for a B.S. in Echocardiography: 191 Credit Hours

Echocardiography, Degree Completion, BS

Courses Granted for Registry

- BIO 220 - Cardiovascular Physiology Credit Hours: 4
- BIO 346 - Pathophysiology I Credit Hours: 3
- BIO 347 - Pathophysiology II Credit Hours: 3
- ECHO 231 - Echocardiography I Credit Hours: 4
- ECHO 232 - Echocardiography II Credit Hours: 4
- ECHO 320 - Cardiographic Methods Credit Hours: 3
- ECHO 321 - Stress & Transesophageal Echo Credit Hours: 3
- ECHO 333 - Echocardiography III Credit Hours: 4
- ECHO 388 - Externship Preparation Credit Hours: 2 (waived)
- ECHO 420 - Echocardiography Externship Credit Hours: 45
- MIT 103 - Intro to Med Imaging Credit Hours: 3
- MIT 231 - Sonographic Princ & Instru I Credit Hours: 4
- MIT 232 - Sonographic Princ & Instru II Credit Hours: 4
- PHY 217 - Physics of Med Imaging Credit Hours: 3

Completion Courses

- BUS 313 - Health Care Systems & Policy Credit Hours: 3
  or
- BUS 316 - Total Quality Health Care Credit Hours: 3
  or
- BUS 317 - Health Care Management Credit Hours: 3

- ECHO 325 - Pediatric Echo Credit Hours: 3 [a]
- ECHO 332 - Invasive Cardiology Credit Hours: 3
- ECHO 334 - Echocardiography IV Credit Hours: 4
- ECHO 376 - Survey of Vascular Testing Credit Hours: 3 [a]
- ECHO 385 - Echo Lab Management Credit Hours: 3
- ECHO 420A - Echo Externship Credit Hours: 8
- ECHO 420B - Echo Externship Credit Hours: 7
- Communication Elective Credit Hours: 6

Transfer Courses

- BIO 200 - Medical Terminology Credit Hours: 2
- BIO 231 - Human Anatomy/Physiology I Credit Hours: 4
- BIO 232 - Human Anatomy/Physiology II Credit Hours: 4
- BIO 233 - Human Anatomy/Physiology III Credit Hours: 4
- CHE 101 - Intro to General Chemistry Credit Hours: 3

- CHE 104 - Intro to General Chemistry Lab Credit Hours: 1
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- MATH 112Z - Precalculus II: Trigonometry Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4
- Humanities Electives Credit Hours: 9
- Social Science Electives Credit Hours: 12
- Elective Credit Hours: 3

Magnetic Resonance Imaging (MRI), Certificate

The educational requirement for taking the MR registry is minimal for ARRT registered Radiologic Technologists, but the learning curve is steep. For technologists with little knowledge of MR physics and procedures a certificate is offered on campus and fully online that culminates in completing the didactic and clinical requirements. Online students must have access for clinical practice at their place of employment, and permission from management.

Requirements of the Certificate

Students must earn a "C" or better in all courses to be awarded the certificate.

- BIO 335 - Cross-Sectional Anatomy Credit Hours: 3
- BIO 375 - Cross Sectional Anatomy II Credit Hours: 3 (Variable 1-3 credit hours)
- MIT 341 - Magnetic Resonance Imaging Credit Hours: 4
- MIT 342 - Mag. Resonance Imaging II Credit Hours: 3
- MIT 365 - Mag. Resonance Imaging Review Credit Hours: 2
- MIT 411 - Magnetic Resonance Externship Credit Hours: 5

Nuclear Medicine and Molecular Imaging Technology, BS

Curriculum

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Pre-Medical Imaging Technology

Freshman Year

Fall

- BIO 231 - Human Anatomy/Physiology I Credit Hours: 4
- CHE 101 - Intro to General Chemistry Credit Hours: 3

- CHE 104 - Intro to General Chemistry Lab Credit Hours: 1
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- MIT 103 - Intro to Med Imaging Credit Hours: 3

Winter

- BIO 232 - Human Anatomy/Physiology II Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
- Humanities Elective Credit Hours: 3
- Social Science Elective Credit Hours: 3

Spring

- BIO 200 - Medical Terminology Credit Hours: 2
- BIO 233 - Human Anatomy/Physiology III Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4
- Social Science Elective Credits: 3

Professional Courses

Sophomore Year

Fall

- CHE 350 - Clinical Pharmacology/NMT Credit Hours: 3
- NMT 212 - Nuc Med Phy/Radiation Biophy Credit Hours: 3
- NMT 217 - Patient Care Credit Hours: 4
- PHY 217 - Physics of Med Imaging Credit Hours: 3

Winter

- NMT 205 - Nuclear Med Admin Credit Hours: 3
- NMT 215 - Radiochem/Radiopharmacy Credit Hours: 4
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4
- Communication Elective Credits: 3

Spring

- NMT 225 - Nuclear Phy/Instrumtn Credit Hours: 4
- NMT 256 - Cardiovascular Imaging Credit Hours: 3
- Communication Elective Credit Hours: 3
- Humanities Elective Credit Hours: 3

Junior Year

Fall

- BUS 316 - Total Quality Health Care Credit Hours: 3
  or
- BUS 317 - Health Care Management Credit Hours: 3
  or
- BUS 313 - Health Care Systems & Policy Credit Hours: 3

- MIT 341 - Magnetic Resonance Imaging Credit Hours: 4
- NMT 311 - Imaging Procedures I Credit Hours: 4
- NMT 367 - PET Imaging Credit Hours: 3

Winter

- BIO 335 - Cross-Sectional Anatomy Credit Hours: 3
- BIO 346 - Pathophysiology I Credit Hours: 3
- NMT 312 - Imaging Procedures II Credit Hours: 4
- NMT 355 - Computed Tomography Credit Hours: 4
- Social Science Elective Credit Hours: 3

Spring

- NMT 313 - Therapeutic Procedures Credit Hours: 3
- NMT 325 - SPECT Imaging/Comp Appl Credit Hours: 4
- NMT 388 - Externship Preparation Credit Hours: 3
- Humanities Elective Credit Hours: 3
- Social Science Elective Credit Hours: 3

Senior Year

Summer

- NMT 410 - Nuclear Med Tech Extern Credit Hours: 15

Fall

- NMT 410 - Nuclear Med Tech Extern Credit Hours: 15

Winter

- NMT 410 - Nuclear Med Tech Extern Credit Hours: 15

Spring

- NMT 410 - Nuclear Med Tech Extern Credit Hours: 15

Total for a B.S. in Nuclear Medicine and Molecular Imaging Technology: 194 Credit Hours

Picture Archiving and Communication Systems (PACS) Certificate

Medical Imaging Technology students with an interest and aptitude in computer science have a unique opportunity at Oregon Tech. Networked digital imaging has created the need for technologists with specialized training. Career opportunities for managers of image networks are on the rise, but few working technologists have the training to prepare them for entering this field.

With the availability of Computer Systems and Management Information Systems majors at Oregon Tech, a certificate in Picture Archiving and Communication Systems (PACS) is available for motivated students to pursue this opportunity.

Requirements of the Certificate

Students must earn a "C" or better in all courses to be awarded the certificate.

- MIT 209 - PACS I: Intro to PACS Credit Hours: 3
- MIT 219 - PACS II: Comm and Admin Credit Hours: 3
- MIT 229 - PACS III: Tech Req & Imag Qual Credit Hours: 3
- MIT 239 - PACS IV: Implem & Sys Mgmt Credit Hours: 3
- MIT 249 - PACS V: DICOM Credit Hours: 3
- MIT 259 - PACS VI: PACS Security Credit Hours: 3

Radiologic Science, BS

Curriculum

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Pre-Medical Imaging Technology

Freshman Year

Fall

- BIO 231 - Human Anatomy/Physiology I Credit Hours: 4
- CHE 101 - Intro to General Chemistry Credit Hours: 3
- CHE 104 - Intro to General Chemistry Lab Credit Hours: 1
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- MIT 103 - Intro to Med Imaging Credit Hours: 3

Winter

- BIO 232 - Human Anatomy/Physiology II Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
- Humanities Elective Credit Hours: 3
- Social Science Elective Credit Hours: 3

Spring

- BIO 200 - Medical Terminology Credit Hours: 2
- BIO 233 - Human Anatomy/Physiology III Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4
- Social Science Elective Credits: 3

Professional Courses

Sophomore Year

Fall

- PHY 217 - Physics of Med Imaging Credit Hours: 3
- RDSC 201 - Imaging Techniques I Credit Hours: 4
- RDSC 235 - Equipment Operation & Maint Credit Hours: 3
- Communication Elective Credit Hours: 3
- Humanities Elective Credit Hours: 3

Winter

- RDSC 202 - Imaging Techniques II Credit Hours: 4
- RDSC 205 - Patient Care Credit Hours: 4
- RDSC 210 - Radiograph Position I Credit Hours: 4
- RDSC 366 - Radiographic Pathology Credit Hours: 3

Spring

- BIO 335 - Cross-Sectional Anatomy Credit Hours: 3
- RDSC 211 - Radiograph Position II Credit Hours: 4
- RDSC 233 - Contrast Media Proc Credit Hours: 4
- RDSC 272 - Radiation Protection Credit Hours: 3
- Social Science Elective Credit Hours: 3

Junior Year

Fall

- BIO 336 - Essentials of Pathophysiology Credit Hours: 3
- RDSC 301 - Radiograph Position III Credit Hours: 4
- RDSC 320 - Surg/Trauma/Mobl Rdgrph Credit Hours: 4
- RDSC 355 - Computed Tomography Credit Hours: 4

Winter

- BUS 313 - Health Care Systems & Policy Credit Hours: 3
  or
- BUS 316 - Total Quality Health Care Credit Hours: 3

or

- BUS 317 - Health Care Management Credit Hours: 3

- MIT 341 - Magnetic Resonance Imaging Credit Hours: 4
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4
- Communication Elective: 3

Spring

- MIT 342 - Mag. Resonance Imaging II Credit Hours: 3
  or
- MIT 356 - Computed Tomography II Credit Hours: 3
  or
- RDSC 354 - Mammography Credit Hours: 4

- RDSC 326 - Crdvsclr/Interv Tech Credit Hours: 4
- RDSC 388 - Externship Preparation Credit Hours: 2
- Social Science Elective Credit Hours: 3

Senior Year

Summer

- RDSC 410 - Rad Science Externship Credit Hours: 15

Fall

- RDSC 410 - Rad Science Externship Credit Hours: 15

Winter

- RDSC 410 - Rad Science Externship Credit Hours: 15

Spring

- RDSC 410 - Rad Science Externship Credit Hours: 15

Total for a B.S. in Radiologic Science: 192 Credit Hours

Radiologic Science, Degree Completion, BS

Courses Granted for Registry

- MIT 103 - Intro to Med Imaging Credit Hours: 3
- PHY 217 - Physics of Med Imaging Credit Hours: 3
- RDSC 201 - Imaging Techniques I Credit Hours: 4

- RDSC 202 - Imaging Techniques II Credit Hours: 4
- RDSC 205 - Patient Care Credit Hours: 4
- RDSC 210 - Radiograph Position I Credit Hours: 4
- RDSC 211 - Radiograph Position II Credit Hours: 4
- RDSC 233 - Contrast Media Proc Credit Hours: 4
- RDSC 235 - Equipment Operation & Maint Credit Hours: 3
- RDSC 272 - Radiation Protection Credit Hours: 3
- RDSC 301 - Radiograph Position III Credit Hours: 4
- RDSC 320 - Surg/Trauma/Mobl Rdgrph Credit Hours: 4
- RDSC 388 - Externship Preparation Credit Hours: 2 (waived)
- RDSC 410 - Radiologic Science Externship Credit Hours: 45

Total: 89 Credit Hours

Completion Courses

- BIO 335 - Cross-Sectional Anatomy Credit Hours: 3
- BIO 336 - Essentials of Pathophysiology Credit Hours: 3

- BUS 313 - Health Care Systems & Policy Credit Hours: 3
  or
- BUS 316 - Total Quality Health Care Credit Hours: 3
  or
- BUS 317 - Health Care Management Credit Hours: 3

- MIT 341 - Magnetic Resonance Imaging Credit Hours: 4
- RDSC 326 - Crdvsclr/Interv Tech Credit Hours: 4 [a]

- RDSC 354 - Mammography Credit Hours: 4 [a]
  or
- RDSC 355 - Computed Tomography Credit Hours: 4
- RDSC 366 - Radiographic Pathology Credit Hours: 3
- RDSC 411 - Special Rad Sci Extern Credit Hours: 15
- SPE 321 - Small Group/Team Comm Credit Hours: 3
- Communication Elective Credit Hours: 3

Total: 45 Credit Hours

[a] Optional credit may be awarded for additional registries

Transfer Courses

- BIO 200 - Medical Terminology Credit Hours: 2
- BIO 231 - Human Anatomy/Physiology I Credit Hours: 4
- BIO 232 - Human Anatomy/Physiology II Credit Hours: 4
- BIO 233 - Human Anatomy/Physiology III Credit Hours: 4
- CHE 101 - Intro to General Chemistry Credit Hours: 3
- CHE 104 - Intro to General Chemistry Lab Credit Hours: 1

- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- MATH 112Z - Precalculus II: Trigonometry Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4
- Humanities Electives Credit Hours: 9
- Social Science Electives Credit Hours: 12
- Elective Credit Hours: 2

Total: 61 Credit Hours

Vascular Technology, BS

Vascular technology is a profession which utilizes ultrasound, Doppler, color Doppler and various physiologic testing procedures to aid in the diagnosis of disease of the vascular system. Vascular technologists conduct patient interviews, compile health histories and determine risk assessments pertaining to vascular disease. The technologists choose appropriate testing modalities and provide referring physicians with preliminary interpretation of results.

Curriculum

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Pre-Medical Imaging Technology

Freshman Year

Fall

- BIO 231 - Human Anatomy/Physiology I Credit Hours: 4
- CHE 101 - Intro to General Chemistry Credit Hours: 3
- CHE 104 - Intro to General Chemistry Lab Credit Hours: 1
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- MIT 103 - Intro to Med Imaging Credit Hours: 3

Winter

- BIO 232 - Human Anatomy/Physiology II Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
- Humanities Elective Credit Hours: 3
- Social Science Elective Credit Hours: 3

Spring

- BIO 200 - Medical Terminology Credit Hours: 2
- BIO 233 - Human Anatomy/Physiology III Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4
- Social Science Elective Credits: 3

Professional Courses

Sophomore Year

Fall

- BIO 220 - Cardiovascular Physiology Credit Hours: 4
- MIT 225 - Patient Care in Sonography Credit Hours: 3
- PHY 217 - Physics of Med Imaging Credit Hours: 3
- VAS 214 - Vascular Anatomy Credit Hours: 4

Winter

- BIO 346 - Pathophysiology I Credit Hours: 3
- MIT 231 - Sonographic Princ & Instru I Credit Hours: 4
- VAS 246 - Perphrl Arterial Disease Credit Hours: 4
- Social Science Elective Credit Hours: 3

Spring

- BIO 347 - Pathophysiology II Credit Hours: 3
- MIT 232 - Sonographic Princ & Instru II Credit Hours: 4
- VAS 245 - Periphrl Venous Disease Credit Hours: 4
- Humanities Elective Credit Hours: 3

Junior Year

Fall

- BUS 316 - Total Quality Health Care Credit Hours: 3
  OR
- BUS 317 - Health Care Management Credit Hours: 3
  OR
- BUS 313 - Health Care Systems & Policy Credit Hours: 3
- VAS 365 - Abdominal Vasc Disease Credit Hours: 4
- VAS 375 - Survey Abdom Sonography Credit Hours: 3
- Social Science Elective Credit Hours: 3
- Communications Elective Credit Hours: 3

Winter

- VAS 366 - Spec Circulatory Problms Credit Hours: 4
- VAS 337 - Survey of Echocardiography Credit Hours: 3

- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4

Spring

- VAS 367 - Cerebrovascular Disease Credit Hours: 4
- VAS 385 - Vascular Lab Mgmt Credit Hours: 3
- VAS 388 - Externship Preparation Credit Hours: 2
- Humanities Elective Credit Hours: 3
- Communications Elective Credit Hours: 3

Senior Year

Summer

- VAS 420 - Vascular Tech Extern Credit Hours: 15

Fall

- VAS 420 - Vascular Tech Extern Credit Hours: 15

Winter

- VAS 420 - Vascular Tech Extern Credit Hours: 15

Spring

- VAS 420 - Vascular Tech Extern Credit Hours: 15

Total for a B.S. in Vascular Technology: 187 Credit Hours

Vascular Technology, Degree Completion, BS

Courses Granted for Registry

- BIO 346 - Pathophysiology I Credit Hours: 3
- BIO 347 - Pathophysiology II Credit Hours: 3
- MIT 103 - Intro to Med Imaging Credit Hours: 3
- MIT 231 - Sonographic Princ & Instru I Credit Hours: 4
- MIT 232 - Sonographic Princ & Instru II Credit Hours: 4
- PHY 217 - Physics of Med Imaging Credit Hours: 3 [a]
- VAS 214 - Vascular Anatomy Credit Hours: 4
- VAS 245 - Periphrl Venous Disease Credit Hours: 4
- VAS 246 - Perphrl Arterial Disease Credit Hours: 4
- VAS 367 - Cerebrovascular Disease Credit Hours: 4
- VAS 388 - Externship Preparation Credit Hours: 2 (waived)
- VAS 420 - Vascular Technology Externship Credit Hours: 45

Total: 84 Credit Hours

Completion Credits

- BIO 220 - Cardiovascular Physiology Credit Hours: 4

- BUS 313 - Health Care Systems & Policy Credit Hours: 3
  or
- BUS 316 - Total Quality Health Care Credit Hours: 3
  or
- BUS 317 - Health Care Management Credit Hours: 3

- VAS 335 - Radiogrphc Vasclr Anat Credit Hours: 3
- VAS 337 - Survey of Echocardiography Credit Hours: 3
- VAS 365 - Abdominal Vasc Disease Credit Hours: 4
- VAS 366 - Spec Circulatory Problms Credit Hours: 4
- VAS 375 - Survey Abdom Sonography Credit Hours: 3 [a]
- VAS 385 - Vascular Lab Mgmt Credit Hours: 3
- VAS 420A - Special Vas Tech Extern Credit Hours: 8
- VAS 420B - Special Vas Tech Extern Credit Hours: 7
- Communication Elective Credit Hours: 6

Total: 51 Credit Hours

Transfer Courses

- BIO 200 - Medical Terminology Credit Hours: 2
- BIO 231 - Human Anatomy/Physiology I Credit Hours: 4
- BIO 232 - Human Anatomy/Physiology II Credit Hours: 4
- BIO 233 - Human Anatomy/Physiology III Credit Hours: 4
- CHE 101 - Intro to General Chemistry Credit Hours: 3
- CHE 104 - Intro to General Chemistry Lab Credit Hours: 1
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- MATH 112Z - Precalculus II: Trigonometry Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4
- Humanities Electives Credit Hours: 9
- Social Science Electives Credit Hours: 12
- Elective Credit Hours: 3

Total: 62 Credit Hours

[a] Optional credit may be awarded for additional registries

Medical Laboratory Science Department

Medical Laboratory Science Department

Caroline Doty, *Department Chair*

Dawn Taylor, *Program Director*

Associate Professor: D. Taylor, C. Doty

Assistant Professors: L. Sprauer
Instructors: R. Barrett, D. Mooers

Adjunct Faculty: The program utilizes medical laboratory professionals in medical, research, and public health laboratories.

Degree Offered

- Bachelor of Science in Medical Laboratory Science (joint degree with Oregon Tech and Oregon Health and Science University - OHSU)
- Bachelor of Science in Medical Laboratory Science, Degree Completion

Oregon Tech, in partnership with OHSU, offers a course of study leading to a Bachelor of Science in Medical Laboratory Science degree. Students take coursework that combines a rigorous competency-based science curriculum with community-sponsored clinical training. Graduates are prepared to enter the medical laboratory science profession and to pursue career opportunities in various laboratory settings including medical, research, and public health. Students who successfully complete the degree program are eligible to take the *Medical Laboratory Scientist (MLS)* national board certification examination offered by the *American Society for Clinical Pathology (ASCP)*.

Accreditation

The Medical Laboratory Science professional program is accredited by the *National Accrediting Agency for Medical Laboratory Science (NAACLS)*, 5600 North River Road, Suite 720, Rosemont, Illinois 60018-5119, (773) 714-8880.

Mission Statement

The mission of the Oregon Tech • OHSU Medical Laboratory Science Program is to educate, train, and graduate professionally competent and ethical individuals, committed to life-long learning, and who are prepared to meet current and future workplace challenges in medical laboratory science.

Program of Study

During the *pre-professional phase* of study, students complete a minimum of 95-quarter hours that includes (a) 47-quarter hours of general education coursework, including two college-level math courses, one of which must be statistics; (b) 24-quarter hours of biology (200 level or above) that must include one microbiology course and one immunology course; and (c) 24-quarter hours of chemistry (200 level of above). Students must receive a grade of C or better in all required course work.

Through an application process, students are selected to enter the professional program.

The MLS professional program is admission-restricted and 15 months (5 consecutive terms) long, beginning in September of the academic year in which a student is admitted and ending in December of the following year. Admitted students spend four quarters completing medical laboratory science-specific coursework on the Oregon Tech Portland-Metro campus. Prior to clinical externship rotations, students spend 2 weeks in a simulated experience. Upon

successful completion of the on-campus work, students are assigned to one or more program-affiliated laboratories to complete an extended fifth term (12 weeks) of clinical training. During clinical training, students spend 40 hours per week applying knowledge and skills to perform a wide variety of testing in a contemporary, accredited medical laboratory and to further develop discipline-specific competency under supervision of clinical instructors. Currently, the Department of MLS maintains affiliations with accredited laboratories in Oregon, Washington, Idaho, Nevada, Arizona, Colorado, Hawaii, Alaska, and Wyoming.

Students admitted to the MLS professional program are guaranteed placement for their clinical training subject to the following policies and procedures:

1. Due to the variable availability of training sites year to year, student placement at a specific site and term may not be possible. Therefore, placement of students for clinical training is determined by the program in consultation with clinical affiliate training sites.
2. Before beginning clinical training, students must comply with all training site and Oregon standardized administrative requirements including but not limited to immunizations, screening (e.g., background check, drug screen, etc.), trainings (e.g., safety, CPR, etc.), and proof of health insurance coverage valid for the entire clinical training period.
3. All academic and non-academic requirements must be met to the satisfaction of program faculty before a student is permitted to start clinical training.
4. Students are solely responsible for transportation and housing needs associated with their clinical training placement.

Professional Program Application and Admission Requirements

The professional program admits one cohort of students a year. All prospective students should submit completed applications from September 1st to January 15th. Students can download application instructions and the application forms from URL http://www.oit.edu/portland-metro/academics/degrees/medical-laboratory-science/how-to-apply.

Importantly, transfer and post-baccalaureate students must also submit a separate application for admission to Oregon Tech. Prospective students may apply online at URL http://www.oit.edu/portland-metro/admissions. When asked, applicants should select "**Pre MLS**" as their major. NOTE: **Admission to Oregon Tech does not mean that an applicant has been admitted to the MLS professional program**.

Admission to the professional program is criterion-based, competitive, and decided by the program admissions committee. Admission selection is based upon scholarship, personal qualifications, recommendations from three references, and interview results. Selected candidates are interviewed in February or early March and applicants selected for admission are notified in writing by the Program Director during March. To be eligible for admission, candidates for the MLS professional program must meet the following minimum eligibility requirements:

- **Those applicants who have earned a Baccalaureate degree must have completed a minimum of 95 transferable quarter credit hours to include:**
    - **Mathematics**: one college-level math course. Minimum requirements are met by MATH 111Z - Precalculus I: Functions. **Additional required math course**: statistics;
    - **Biology**: 24-quarter credit hours that must include one course in immunology and a course in microbiology. The microbiology coursework must include a laboratory component either integral to the course or taken separately; courses must be at the 200-level or above and not survey type. **Highly recommended courses**: general biology, genetics, anatomy and physiology, cellular or molecular biology; Medical Terminology course work will not apply towards the biology requirement.
    - **Chemistry**: 24-quarter credit hours of chemistry; courses must be at the 200 level or above and not survey type. **Highly recommended courses**: general chemistry, organic chemistry, biochemistry, and quantitative analysis
- Those applicants who have not earned a Baccalaureate degree must have completed a minimum of 95 transferable quarter hours to include the prerequisites listed in 1 above and:

1. 18-quarter credit hours of Communication course work including specified course work in writing and speech (see Baccalaureate General Education Requirements described elsewhere in this catalog);
2. 9-quarter credit hours of Humanities course work in topical areas such as Art, Art History or Appreciation, Music, Music History or Appreciation, English (excluding writing and speech), Linguistics, and Philosophy (no more than three credits of activity of performance-based courses may be used in this category); and
3. 12-quarter credit hours of Social Science course work in topical areas such as Anthropology, Economics, Geography, History, Political Science, Psychology, and Sociology.

Prerequisite course work does not need to be completed to apply, but official transcript(s) documenting completion of all outstanding prerequisite coursework with grades of 'C' or better must be on file with the MLS Department office before any offer of admission is finalized. The Oregon Tech Registrar's office will review each applicant's transcripts to confirm that the requirements are met. Applicants who have met **admission requirements** seven or more years prior to application to the MLS Program must complete additional academic work to qualify. This may be accomplished by:

- Completing a course in chemistry and a course in biology with a grade of C or better; courses must be at the 200-level or above and not survey type; or
- Receiving credit by examination in biochemistry and in microbiology; or
- Achieving a CLEP score at or above 50 on both the biology and chemistry examinations.

Applicants seeking transfer credit from international institutions must provide a credential evaluation from an Oregon Tech-approved credential evaluation service and must meet requirements as described in two above. Contact the Oregon Tech Office of Admissions on-line at http://www.oit.edu/admissions/international-students or by telephone 503.821.1250 or 1.800.422.2017 for additional information.

- All applicants must have a minimum GPA of 2.5 to apply.

Health Insurance and Immunizations

Students admitted to the MLS program are required to have and show proof of comprehensive health insurance coverage. This is because during a student's tenure in the MLS program they will work with patient samples and be in close contact with patients who may be ill. This means MLS program students are at a high risk for exposure to certain infections. Health insurance is not available through the university. Students must acquire this insurance on their own.

Note: MLS program students are NOT permitted to begin the program or attend a clinical externship without demonstrating proof of health insurance.

All MLS program students are required to meet immunization requirements as dictated by OARs 409-030-0100 to 409-030-0250. Students will be provided with current information once accepted into the professional program.

Essential Requirements

In accordance with its accreditation standards, the MLS program has established essential requirements. To be admitted and maintain enrollment, participate in, and successfully complete the MLS professional program, a student must meet these non-academic standards of performance:

A. Students must demonstrate the ability to acquire and to communicate information. Specifically, a program student must be able to:
    1. Read for comprehension and follow verbal and written instructions to demonstrate mastery of information presented in coursework, including relevant content in basic science and clinical courses, at a level deemed appropriate by the faculty.
    2. Effectively communicate in written and spoken English in order to transmit information to faculty, staff, peers, and members of the health care team.
    3. Make a correct judgment in seeking supervisory help and consultation in a timely manner.

4. Competently utilize technology to research, investigate, acquire and present information obtained by observation and experimentation.
5. Use strategies that minimize miscommunication.
6. At all times and in all circumstances, follow established procedures to safeguard protected patient information communicated by non-electronic and electronic means.

B. Students must demonstrate sufficient motor and sensory function to execute movements required to carry out work assignments in all phases of diagnostic testing, including pre-analytical, analytical, and post-analytical. Specifically, a program student must be able to:
    1. Distinguish physical and/or chemical attributes, including color, shape, size, and fine detail of objects both macroscopically and microscopically.
    2. Demonstrate sufficient dexterity to safely manipulate specimens, laboratory utensils, tools, equipment and instrumentation including computer touch-screens, keyboards and handheld calculators, necessary to obtain and report complete and accurate diagnostic test results.
    3. Demonstrate adequate mobility to attend to duties in the various locations of the medical laboratory work environment.
    4. Use sensory skills to acquire and apply information presented by various means and media, including demonstrations.
    5. Perform sustained, often repetitive physical activity that may require sitting, standing and/or walking for prolonged periods of time.
    6. Accurately read, record, and when necessary, respond to numbers, letters and symbols displayed in print whether transmitted through non-electronic, electronic or other technological media.
    7. Demonstrate proficiency performing a wide range of tests in areas of the contemporary medical laboratory including but not limited to hematology, clinical chemistry, immunohematology, and microbiology, molecular and other emerging diagnostic venues.

C. Students must project an image of professionalism through behavior, speech, and grooming. Each student is to possess requisite knowledge and skill and safely perform a wide variety of test procedures with precision and accuracy. Specifically, a program student must be able to:
    1. Follow established laboratory safety protocols when working with various sample types including blood, urine, and other body fluids and tissues, and with microbial organisms that may be infectious, and hazardous chemicals.
    2. Work accurately and safely under stress and time constraints to make subjective evaluations and decisions when mistakes may have a negative and/or high impact on patient care.
    3. Adapt to changing environments, maintain a professional demeanor and concentration in distracting situations.
    4. Demonstrate attributes that include integrity, responsibility, and tolerance.
    5. Speak, act and perform all work in an ethical manner.
    6. Show respect for self and others.
    7. Work independently as well as cooperatively with others, performing professional obligations in a timely, responsible manner.
    8. Prioritize tasks and accept responsibility for work performed independently and as a team member.
    9. Assess his or her performance, willingly accept criticism, and actively seek ways to improve.

Program Learning Outcomes:

1. Competency to perform a full range of testing in the contemporary medical laboratory encompassing pre-analytical, analytical, and post-analytical components of laboratory services, including immunology, hematology, clinical chemistry, immunohematology, microbiology, molecular, hemostasis, urinalysis, body fluids, parasitology, mycology, virology, and other emerging diagnostic venues.

2. Proficiency to problem-solve, troubleshoot, and interpret results, and to use statistical approaches when evaluating data.

3. Professional and ethical conduct, respecting the feelings and needs of others, protecting the confidence of patient information, and never allowing personal concerns and biases to interfere with the welfare of patients.

4. Maintaining appropriate composure under stressful conditions.

5. Administrative skills consistent with philosophies of quality assurance, continuous quality improvement, laboratory education, fiscal resource management.

6. Application of safety and governmental regulations and standards as applied to medical laboratory practice. 7. Effective communication skills to ensure accurate and appropriate information transfer.

MLT to MLS Online Degree Completion Program

Certified Medical Laboratory Technicians (MLT) with an associate degree, currently working in the field, seeking a bachelor's degree in MLS from Oregon Tech will be able to complete the degree entirely online while continuing to work. MLT certified students have mastered much of the basic laboratory skills in their associate degree MLT program. The online program will not include the student laboratory practices performed on campus. Instead, students completing online coursework, will complete assigned competencies and/or projects at the affiliated laboratory site they are working. The following allowances are available for these students.

- Students will be allowed to be full or part-time students
- Credit for Prior Experiential Learning up to 31 upper division credits (via Credit for National Registry or Licensure Exam). Courses include

Graduation Requirements

BS MLS degree students must complete 180 quarter credits hours, maintain a minimum GPA of 2.00, and earn a grade of "C" or better in all professional program courses (MLS) as prescribed by the curriculum outline.

Medical Laboratory Science, BS

Graduation Requirements

BS MLS degree students must complete 181-183 quarter credits hours, maintain a minimum GPA of 2.00, and earn a grade of "C" or better in all professional program courses (MLS) as prescribed by the curriculum outline.

Note: The Portland-Metro campus is a laptop-required campus with resources like laptop specifications, financial aid, and helpful instructions found at http://www.oit.edu/portland-metro/college-costs/bring-your-own-device.

Curriculum

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Note: If a student is admitted into the MLS professional program and has followed this curriculum map, the MLS degree can be completed in 11 terms.

Pre-Medical Laboratory Science

This is the curriculum map to be followed by EAMLSP students.

First Year

Fall

- Biology Elective Credit Hours (200 level or above): 4
  or
- Recommended: BIO 211 - Principles of Biology Credit Hours: 4
  or
- Recommended: BIO 231 - Human Anatomy/Physiology I Credit Hours: 4

- Chemistry Elective Credit Hours (200 level or above): 5
  or
- Recommended: CHE 221 - General Chemistry I Credit Hours: 5

- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

Winter

- Biology Elective Credit Hours (200 level or above: 4
  or
- Recommended: BIO 212 - Principles of Biology Credit Hours: 4
  or
- Recommended: BIO 232 - Human Anatomy/Physiology II Credit Hours: 4

- Chemistry Elective Credit Hours (200 level or above): 5
  or
- Recommended: CHE 222 - General Chemistry II Credit Hours: 5
- Humanities Elective Credit Hours: 3
- Social Science Elective Credit Hours: 3

Spring

- Biology Elective Credit Hours (200 level or above): 4
  or
- Recommended: BIO 213 - Principles of Biology Credit Hours: 4
  or
- Recommended: BIO 233 - Human Anatomy/Physiology III Credit Hours: 4

- Chemistry Elective Credit Hours (200 level or above): 5
  or
- Recommended: CHE 223 - General Chemistry III Credit Hours: 5

- MLS 100 - Introduction to MLS Credit Hours: 2 (only required for MLS early admission track students)
- COM 111Z - Public Speaking Credit Hours: 4
- Social Science Elective Credit Hours: 3

Second Year

Fall

- BIO 345 - Medical Microbiology Credit Hours: 5
- Chemistry Elective Credit Hours (200 level or above): 4
- Statistics Elective Credit Hours: 4
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4

Winter

- Biology Elective Credit Hours (200 level or above): 3
- Chemistry Elective Credit Hours (200 level or above): 4
- Communication Elective Credit Hours: 3 [a]
- Humanities Elective Credit Hours: 3
- Social Science Elective Credit Hours: 3

Spring

- BIO 436 - Immunology Credit Hours: 4
- Chemistry Elective Credit Hours (200 level or above): 4
- Communication Elective Credit Hours: 3 [a]
- Humanities Elective Credit Hours: 3
- Social Science Elective Credit Hours: 3

Communication Electives

Students must choose courses from the following list:

- COM 205 - Intercultural Comm Credit Hours: 3 [a]
- COM 218Z - Interpersonal Communication Credit Hours: 4
- COM 320 - Advanced Intercultural Comm Credit Hours: 3 [a]
- COM 347 - Negotiation & Conflict Resol'n Credit Hours: 3
- COM 401 - Civil Engineering Project I Credit Hours: 3
- SPE 314 - Argumentation Credit Hours: 3
- SPE 321 - Small Group/Team Comm Credit Hours: 3
- WRI 214 - Business Correspondence Credit Hours: 3
- WRI 227Z - Technical Writing Credit Hours: 4
- WRI 327 - Advanced Tech Writing Credit Hours: 3
- WRI 328 - Style Credit Hours: 3
- WRI 350 - Documentation Develop Credit Hours: 3
- WRI 410 - Proposal & Grant Writing Credit Hours: 3

[a] COM 205 and COM 320 **may not** be used to satisfy both Communication and Humanities credits

Professional Courses

All senior level courses require admission to the Medical Laboratory Science Program or instructor consent.

Professional Courses

Fall

- MLS 420 - Clinic Immun & Infect Serology Credit Hours: 5
- MLS 432 - Foundations of MLS I Credit Hours: 4
- MLS 442 - Hematology I Credit Hours: 6
- MLS 464 - Medical Mycology and Parasitology Credit Hours: 3

Winter

- MLS 415 - Clinical Chemistry I Credit Hours: 6
- MLS 444 - Microbiology I Credit Hours: 6
- MLS 452 - Hematology II Credit Hours: 5
- MLS 462 - Foundations of MLS II Credit Hours: 3

Spring

- MLS 416 - Clinical Chemistry II Credit Hours: 6
- MLS 443 - Immunohematology I Credit Hours: 4
- MLS 445 - Microbiology II Credit Hours: 4
- MLS 449 - Principles of Urinalysis Credit Hours: 3

Summer

- MLS 422 - Molecular Diagnostics Credit Hours: 4
- MLS 424 - Hemostasis Credit Hours: 3
- MLS 453 - Immunohematology II Credit Hours: 3
- MLS 417 - Clinical Chemistry III Credit Hours: 2

Fall

- MLS 463 - Foundations of MLS III Credit Hours: 1
- MLS 470 - Chemistry & Immunology Extern Credit Hours: 3
- MLS 471 - Hematology Externship Credit Hours: 3
- MLS 472 - Microbiology Externship Credit Hours: 3
- MLS 473 - Immunohematology Extern Credit Hours: 3

Total for a B.S. Medical Laboratory Science: 180 Credit Hours

Medical Laboratroy Science, Degree Completion, BS

Certified Medical Laboratory Technicians (MLT) with an associate degree, currently working in the field, seeking a bachelor's degree in MLS from Oregon Tech will be able to complete the degree entirely online while continuing to work. MLT certified students have mastered much of the basic laboratory skills in their associate degree MLT program. The online program will not include the student laboratory practices performed on campus. Instead, students completing online coursework, will complete assigned competencies and/or projects at the affiliated laboratory site they are working. The following allowances are available for these students.

- Students will be allowed to be full or part-time students
- Credit for Prior Experiential Learning up to 31 upper division credits (via Credit for National Registry or Licensure Exam).

Graduation Requirements

BS MLS degree students must complete 180 quarter credits hours, maintain a minimum GPA of 2.00, and earn a grade of "C" or better in all professional program courses (MLS) as prescribed by the curriculum outline.

Courses Granted for MLT Certification

- MLS 432 - Foundations of MLS I Credit Hours: 4
- MLS 442 - Hematology I Credit Hours: 6
- MLS 444 - Microbiology I Credit Hours: 6
- MLS 449 - Principles of Urinalysis Credit Hours: 3
- MLS 470 - Chemistry & Immunology Extern Credit Hours: 3
- MLS 471 - Hematology Externship Credit Hours: 3
- MLS 472 - Microbiology Externship Credit Hours: 3
- MLS 473 - Immunohematology Extern Credit Hours: 3

Program Pre-Requisites

- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- 24 credit hours of 200 level Biology* including a Microbiology and Immunology course
- 24 credit hours 200 level Chemistry*
- 1 course in Statistics
  **Some 100 level MLT courses may meet this requirement. Please see MLS advisor for transcript review.*

Degree Completion Courses

- MLS 407 - Seminar Credit Hours: 10
- MLS 415 - Clinical Chemistry I Credit Hours: 6
- MLS 416 - Clinical Chemistry II Credit Hours: 6
- MLS 420 - Clinic Immun & Infect Serology Credit Hours: 5
- MLS 422 - Molecular Diagnostics Credit Hours: 4
- MLS 424 - Hemostasis Credit Hours: 3
- MLS 443 - Immunohematology I Credit Hours: 4
- MLS 445 - Microbiology II Credit Hours: 4
- MLS 452 - Hematology II Credit Hours: 5
- MLS 453 - Immunohematology II Credit Hours: 3
- MLS 463 - Foundations of MLS III Credit Hours: 1
- MLS 462 - Foundations of MLS II Credit Hours: 3
- MLS 464 - Medical Mycology and Parasitology Credit Hours: 3

General Education

- COM 111Z - Public Speaking Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4
- Communications Elective Credit Hours: 6
- Humanities Elective Credit Hours: 9
- Social Science Elective Credit Hours: 12

Natural Sciences Department

Nate Bickford, *Department Chair*

Professors: H.-Y. Li, R. McClure, K. Usher, R. Wilde

Associate Professors: N. Bickford, K. Gandhi, J. Kellermann, J. Kinder, T. Lund, G. Pak

Assistant Professors: R. Edwards, T. Elliott, D. Grossnickle, W. Hung, D. Johnston, T. Owen, Y. Yang

Instructors: K. Farris, N. Pande

Degrees Offered

- Bachelor of Science in Biology-Health Sciences
- Bachelor of Science in Environmental Sciences
- Master of Science in Biomedical Sciences
- Master of Science in Natural Resources

Minors Offered

- Applied Physics
- Biology
- Chemistry
- Sustainability

The Department of Natural Sciences prepares students for challenging, rewarding careers in health, biological, and environmental sciences. The department also provides courses in biology, chemistry, and physics in support of degrees in nursing, medical imaging, dental hygiene, respiratory care, management and engineering programs.

Biology Programs

Many students have an interest in biology. At Oregon Tech we have designed two programs that prepare graduates for rewarding careers that require a strong foundation in biology. For outdoor or field-oriented options, please refer to the Environmental Sciences program in our department. It offers several emphases, which can readily be tailored to biological interests and student research projects. Graduates from our Environmental Sciences program often go on to careers with public and private agencies such as US Fish and Wildlife Service, US Forest Service and the Nature Conservancy. For medically-oriented options in biology, please see our Biology-Health Sciences program. It offers a strong preparation to apply to professional programs, exceeding the minimum requirements for highly competitive fields such as Medicine, Pharmacy, Dentistry, Veterinary Medicine, Physician Assistant, Physical Therapy, and others.

Biology-Health Sciences Program

Travis Lund, *Program Director*

Degree Offered

- Bachelor of Science in Biology-Health Sciences

Program Learning Outcomes

Upon graduating from the BHS program at Oregon Tech, students will be able to:

1.Demonstrate scientific knowledge and understanding.

a. Demonstrate foundational knowledge in the natural sciences (e.g., terminology, organization, classifications, appropriate use of units, methodologies, and fundamental principles).

b. Apply scientific principles to biological and medical examples/contexts.

2. Be proficient in scientific reasoning and critical thinking.

a. Analyze data to determine its relationship to principles, and evaluate the data for errors.

b. Analyze and evaluate content in biology.

3. Be able to effectively find and use resources from the literature.

4. Demonstrate effective oral, written and visual communication.

5. Demonstrate mathematical knowledge and skills in the biological sciences.

Objective and Career Opportunities

If you are interested in pre-medical, pre-dental, pre-veterinary, pre-pharmacy, pre-physical therapy, etc., then this is the major you want. The degree program provides an intensive course of study in the basic sciences, social sciences, humanities, communication, and mathematics to prepare students for entry into professional programs. The program will meet prerequisite requirements for graduate schools of medicine, dentistry, veterinary medicine, osteopathic medicine, optometry, pharmacy, podiatry, physician assistant, physical therapy and occupational therapy. These are all competitive graduate programs, and our graduates who apply to them have a strong record of acceptance. Our curriculum includes all of the core courses with labs in biology, anatomy & physiology, chemistry (general, organic, and biochemistry), and physics needed for applying to them, as well as upper-division science coursework that is tailored to medical fields, including cell biology, clinical pharmacology, medical genetics, medical microbiology, neuroscience, nutrition, parasitology, pathophysiology, virology, and immunology. We also have opportunities for undergraduate research that can engage students' interest and make them stand out as candidates for graduate programs. Courses in health management, medical microbiology, biochemistry, and molecular & cell biology also provide strong preparation for graduate work in biotechnology, public health, and medical administration. Some students transfer into Oregon Tech's Medical Laboratory Science program, before or after earning their Biology-Health Sciences degree. This major can also prepare one for a career in education with an emphasis in biology.

Student Preparation

The Biology-Health Sciences curriculum is a demanding instructional program requiring considerable effort in science and mathematics coursework. Prospective students are advised to complete at least three years of high school mathematics and a minimum of three years of high school science (biology, chemistry, and physics).

Pre-Professional Program in Dentistry

The pre-professional program in dentistry prepares the student for entrance into dental school and provides a B.S. degree in Biology-Health Sciences. The Biology-Health Sciences curriculum at Oregon Tech provides a pathway to complete all the prerequisites that dental schools like to see, as well as upper-division coursework that is tailored to becoming a superior applicant. Most dental students have completed four years of college, and have a B.S. degree. Dental school typically lasts four years, although an accelerated degree may take only three years to finish. The length of a dental specialty residency depends on the specialty and the school it is affiliated with, so a specialty residency can range from two to six years.

Students are encouraged to work closely with their advisor to map out their curricular plan to prepare them for dental school application by sophomore year.

Admission to dental school is very competitive and requires strong academic achievement and extensive volunteering experience in dental settings. Students considering a career in dentistry should explore the websites of the schools they have interest in as the prerequisites for each may vary, and these can be tailored within our Biology-Health Sciences program. While our curriculum is very challenging, admission into dental school is highly competitive and requires strong academic achievement. The coursework at Oregon Tech helps students prepare for the dental admission test (DAT) offered by the American Dental Association. The test consists of a battery of four tests on the following: survey of the natural sciences, perceptual ability, reading comprehension, and quantitative reasoning.

The ADEA Associated American Dental Schools Application Service (ADEA AADSAS) is the centralized application service for U.S. dental schools. Please visit their website to find more information regarding dental school application.

For complete program requirements and a list of appropriate courses, please see the Biology-Health Sciences Program.

Pre-Professional Program in Medicine

The pre-professional program in medicine prepares the student for entrance into medical school and provides a B.S. degree in Biology-Health Sciences. The Biology-Health Sciences curriculum at Oregon Tech provides a pathway to complete all the prerequisites that medical schools like to see as well as upper-division science coursework that is tailored to becoming a superior applicant. Admission into a medical school doctoral program requires a four-year bachelor's degree with a preference for a science major over a non-science major. Once accepted, medical school then requires approximately four years of education and three to six years of internship and residency.

Students are encouraged to work closely with an advisor in our program to map out their curricular and other plans by sophomore year to prepare them for medical school application. Students are urged to volunteer in medical settings, possibly during high school and especially during college. For students currently in high school, it is advised that the student enrolls in many sciences courses before college to help them prepare for future success. Increasingly, participation in undergraduate research, which is an optional part of the Biology-Health Sciences major, is recommended to develop and demonstrate strong scientific inquiry competency for medical school.

Students considering a career in medicine should explore the websites of the schools they have interest in as the prerequisites for each may vary, and these can be tailored within our Biology-Health Sciences program. While our curriculum is very challenging, admission into medical school is highly competitive and requires strong academic achievement. The coursework at Oregon Tech helps students prepare for the medical college admission test (MCAT)

required by nearly all medical schools. The test, which is divided into four sections including: physical sciences, biological sciences, social sciences and critical reasoning sections, is used to predict a student's ability to succeed academically.

For complete program requirements and a list of appropriate courses please see the Biology-Health Sciences Program.

Pre-Professional Program in Pharmacy

The pre-professional program in pharmacy prepares the student for entrance into pharmacy school and provides a B.S. degree in Biology-Health Sciences. A doctor of pharmacy degree normally takes four years to complete. Most entering pharmacy students have completed four years of undergraduate education and possess a bachelor's degree in the sciences, including specific prerequisites for the pharmacy school. The Biology-Health Sciences curriculum at Oregon Tech provides a pathway to complete all the prerequisites that pharmacy schools like to see as well as upper-division science coursework that is tailored to becoming a superior applicant. Oregon Tech has a cooperative agreement with Pacific University in Oregon that can allow qualifying students to complete their B.S. in Biology-Health Sciences from us and their Pharm.D. from Pacific University in as few as six years total.

Students are encouraged to work closely with their advisor in our program to map out their curricular and other plans by sophomore year to prepare them for pharmacy school application. Students are urged to begin volunteering in pharmacy settings, possibly during high school and especially during college. For students currently in high school, it is recommended to shadow and talk with pharmacists and to take many science courses before college to help prepare for future success.

The application process to pharmacy school is done through the Pharmacy College Application Service (PharmCAS). Students are encouraged to look at their web site while also looking at the sites of schools they have an interest in. Some pharmacy schools require the Pharmacy College Admissions Test (PCAT), but Oregon State University and the pharmacy schools in California do not. Admission to school is competitive so a strong undergraduate GPA, community service, and communication and leadership skills will help.

For complete program requirements and a list of appropriate courses please see the Biology-Health Sciences Program.

Pre-Professional Program in Physical Therapy

The pre-professional program in physical therapy prepares the student for applying for doctor of physical therapy (DPT) program and provides a B.S. degree in Biology-Health Sciences. The curriculum at The Biology-Health Sciences curriculum at Oregon Tech provides a pathway to complete all the prerequisites that physical therapy schools like to see as well as upper-division science coursework that is tailored to becoming a superior applicant. Most DPT programs require applicants to earn a B.S. degree prior to admission. The length of professional DPT programs is typically three years. Oregon Tech is tentatively launching its DPT program in summer 2023. Students graduated from The Biology-Health Sciences will have advantage in admission to the program.

Each institution may require different courses and students are encouraged to work with their academic advisor to plan course schedule. Most DPT programs require applicants to meet minimum GPA and complete the Graduate Record Examination (GRE).Many programs require applicants to have volunteer or paid experiences working with patients under the supervision of a licensed physical therapist.This experience may be an important factor in the admissions process.

Most, but not all professional DPT programs, participate in the Physical Therapist Centralized Application Service (PTCAS). Applicants who wish to apply to a nonparticipating PTCAS program must apply directly to the institution using the DPT program's local application.

For complete program requirements and a list of appropriate courses, please see the Biology-Health Sciences Program.

Pre-Professional Program for Physician Assistant Studies

The pre-professional program for Physician Assistants (PA) prepares the student for entrance into that Master's program and provides a B.S. degree in Biology-Health Sciences. A Master's degree in PA Studies normally takes 2.5 years to complete. Most entering PA students have completed four years of undergraduate education and possess a bachelor's degree in the sciences, including specific prerequisites for the PA school. The Biology-Health Sciences curriculum at Oregon Tech provides a pathway to complete all the prerequisites that PA schools like to see as well as upper-division science coursework that is tailored to becoming a superior applicant. In addition to strong academics, applying to P.A. programs requires a substantial amount of patient care experience, often over 1000 hours. Our pre-professional students often work nearby in healthcare settings during their undergraduate education. Some students choose to get a degree in an allied health major such as medical imaging or respiratory care, along with an additional year or more of science pre-requisites for applying to PA school, and our advisors help advise those students as well.

Students are encouraged to work closely with their advisor in our program to map out their curricular and other plans by sophomore year to prepare them for PA school application. Students are urged to begin volunteering in patient care settings, possibly during high school and especially during college. For students currently in high school, it is recommend to shadow and talk with PA's and other medical providers and to take many science courses before college to help prepare for future success.

For complete program requirements and a list of appropriate courses please see the Biology-Health Sciences Program.

Pre-Professional Program in Veterinary Medicine

The pre-professional program in veterinary medicine prepares students for entrance into veterinary school. A doctor of veterinary medicine program typically lasts four years and features in-depth training in animal sciences. Most veterinary colleges accept applicants have a B.S. degree at a four-year university. The Biology-Health Sciences curriculum at Oregon Tech provides a pathway to complete all the prerequisites that pharmacy schools like to see as well as upper-division science coursework that is tailored to becoming a superior applicant.

The prerequisites for each veterinary school vary slightly. Students are encouraged to work closely with their advisor in our program to map out their curricular and other plans by sophomore year to prepare them for veterinary school application. Admission to veterinary school is competitive and requires a good undergraduate GPA in addition to shadowing or working with a veterinarian, volunteering in an animal shelter, or working at a zoo or rehabilitation facility while completing their undergraduate courses. Experience in 4-H, FFA or a similar group is also great for the application. Graduate Record Examination (GRE) is required by most veterinary schools, and some also require the Biology GRE. The Medical College Admission Test (MCAT) is also accepted by some schools in place of the GRE.

Association of American Veterinary Medical Colleges (VMCAS) is the centralized application service for Colleges of Veterinary Medicine. Please visit their website to find more information regarding veterinary school application. Being a resident of a state that has a veterinary school is also a major advantage to being accepted since most schools take few out-of-state applicants. The WICHE program in the western United States allows out-of-state students to attend veterinary school at Colorado State University at Fort Collins, Oregon State University, Washington State University or the Midwestern University at Glendale, AZ veterinary schools for in-state tuition.

For complete program requirements and a list of appropriate courses please see the Biology – Health Sciences Program.

Master of Science in Biomedical Sciences

The graduate program leading to the degree of Master of Science in Biomedical Sciences prepares students to apply basic scientific principles to the practical scientific problems encountered in health industry, professional school, business, industry, government, and education. Graduates from the program will be able to apply the techniques of scientific research to real-world health problems. Course work may include several important areas relevant to biology and chemistry, including biomedicine, statistics, molecular, and cellular biology.

Thesis Option

For students interested in biological research, private sector jobs, and professional schools where research experience is valued. The thesis option requires successful completion of the on-campus core course, thesis research, and an approved thesis, as well as elective coursework. Thesis option students are required to defend their research results before a thesis defense committee.

3+2 graduate

A unique feature of the program is its 3+2 plan for undergraduate Biology-Health Sciences students. The 3+2 plan allows a student to simultaneously receive a BS and an MS degree in five years. With this plan, students are moved quickly toward expanding their academic and scientific horizons based on the student's abilities and personal motivation. Students in the 3+2 plan are expected to successfully complete the requirements for both the BS and MS degrees by the end of their fifth year in college.

Specific Admission Requirements for 3+2

Students are simultaneously awarded both the BS and MS degrees in five years, thus shortening the normal time to receive both degrees from six years to five years. They must apply and be admitted into the MS program by the Spring semester of their junior year (preferred) or by the start of the Fall semester of the senior year, and must meet the course requirements listed below. Students applying to the 3+2 plan must have a minimum 3.0 overall GPA and a minimum 3.25 GPA in their science coursework.

The application file for admission to the 3+2 plan must include:

1. A completed MS application form;
2. An Oregon Tech transcript;
3. Two letters of recommendation from faculty;
4. A statement of research interests; and
5. Satisfactory scores in 300 and 400 level classes

Non-Thesis Option

Available for a broad range of career professionals including science teachers requiring graduate coursework and individuals with positions in which an MS in Biomedical Sciences will qualify them for promotion. The Biomedical Sciences MS non-thesis option requires completion of the core, capstone, and elective coursework. The program of study for each student must be approved by a graduate committee and the Program Director.

Expected Student Learning Outcomes

Upon completion of the MS, students will have achieved the following goals:

Mastery of the Scientific Method

Independent development and mastery of problem-solving skills including experimental design, execution, critical analysis, and interpretation of the results of original scientific experimentation (thesis) or experiential learning (internship).

Dissemination of Scientific Products

Persuasive communication and defense of significant results of original scientific investigation presented in both written and oral format at a graduate peer-professional level.

Utilization of the Literature

Critical evaluation of an independently accessed comprehensive body of scientific literature which is project relevant and foundational in supporting and explaining research findings in both written and oral format.

Development of a Relevant Knowledge Base

Development of intrinsically held fundamental field-specific knowledge which will be applied to explain and defend research findings at a level of mastery expected by peer-professionals.

Professionalism & Self Responsibility

Maintain a consistent professional work ethic of independently taking the initiative and motivation to produce tangible products of a quality commensurate with peer-standards in graduate or professional schools or in the career field being pursued.

Outcomes Assessment Activities

The faculty will use a variety of methods for evaluating student learning outcomes. Students completing this degree program will give a public research seminar that will be evaluated by cognizant faculty members. A research thesis project will be designed, conducted, and publicly presented in writing and orally prior to defense and evaluation by the student's Graduate Advisory Committee.

Environmental Sciences Program

Degree Offered

- Bachelor of Science in Environmental Sciences

Dual Major Options

- Bachelor of Science in Civil Engineering and Environmental Sciences

- Bachelor of Science in Renewable Energy Engineering and Environmental Sciences

The Bachelor of Science degree in Environmental Sciences focuses on interdisciplinary scientific study of ecology, natural resources, wildlife, data analysis, and sustainability with emphases on management, research, and

communication. Active learning is central to our program which is why many ES classes have labs or field components.

The program offers numerous and diverse opportunities for students to engage in applied research, resource management projects, and community education events with the support of faculty and professionals through local and regional partnerships.

The core curriculum for all BES tracks consists of three major options:

- **Introduction to Science:** Biology, Ecology, Chemistry, Intro Environmental Science, Physical geography, Physics
- **Data analysis:** Statistics, Geographic Information Systems, R – modeling
- **General Education:** Math, Writing, Speech, Humanities, Social Sciences

Environmental sciences encompass a broad range of opportunities for students after graduation which is why in their second year, students select a specific track to focus their education for their career aspirations. The BES program currently offers five options: Wildlife, Fisheries and Natural Resources; Water and Wetland Resources; Recreation and Science Ambassador; Environmental Business and Economics; Environmental Policy and Governance. See descriptions below.

Wildlife, Fisheries, and Natural Resources

Students gather, analyze, and interpret data on wildlife and their habitats to promote organismic success and sustainable natural resources. They evaluate ecosystems to determine environmental impacts from proposed actions while applying standards established through various environmental laws. Examples of track specific courses include Wildlife, Mammalogy, Fisheries, Ornithology, Policy and Management, Conservation Biology, and Ecological Restoration and Monitoring.

Potential careers associated with this option: wildlife tech, wildlife biologist, fisheries biologist, wildlife management, forestry tech, rangeland management.

Water and Wetland Resources

Prepares individuals to apply the principles of aquatic ecology, hydrology, and natural resources management to the development, conservation, and management of freshwater environments. Within this track students will use surveying, remote sensing, geographic information systems, and analytical chemistry techniques to collect data on lentic and lotic systems. Examples of track specific courses include Aquatic Ecology, Watershed Science and Technology, Water Resources, and Treatment Wetlands.

Potential careers associated with this option: hydrologic tech, environmental scientist, wetland scientist, environmental lab technician, water conservation specialist.

Recreation and Science Ambassador

This track prepares students for environmental education and recreation leadership careers. Students educate diverse audiences on environmental and recreation topics and empower their audience to get involved. Within this track students will design and implement standards aligned curriculum for environmental education programs. Examples of track specific courses include Environmental Education, Risk Assessment and Wilderness First Aid, Coaching in Application, and Wilderness Navigation.

Potential careers associated with this option: Interpretive Park Ranger, Environmental Educator, Recreation Ambassador, Park or Resource Specialist, Outreach Specialist.

Environmental Business and Economics

In business there is increasing demand to consider the environmental impact of corporate actions for compliance and conservation purposes. In this track students will develop the analytical skills to assess, allocate, and sustainably

manage natural resources. Examples of track specific courses include Environmental Ethics, Principals of Business Management, Globalization, and Marketing.

Potential careers associated with this option: Sustainability Management, Environmental Reporting Specialist, Corporate Environmental Professional, Environmental Consultant, Natural Resource Manager.

Environmental Policy and Governance

The emphasis in this track is to examine the social dimensions of environmental issues. Students will gain the tools needed to inform environmental policy decisions. They will interpret current environmental laws and policies and advocate sustainable practices. Examples of track specific courses include Environmental Economics, Medical Sociology, Community Program Planning, and Leadership.

Potential careers associated with this option: Environmental Planning/Policy, Environmental Policy Analyst, Environmental Program Specialist, Compliance Analyst.

Environmental Chemistry

This emphasis is structured to provide a strong foundation for working in government, industrial or university labs studying the behavior of chemicals in the environment while emphasizing analytical skills. Provides students with tools to: (1) understand the processes governing chemical transformation in soil, water and air; (2) analyze for the key chemicals in the environment; and, (3) make meaningful predictions about the fates of these chemicals. This emphasis draws on subjects outside of a classical chemistry degree to include courses in atmospheric science, soil microbiology, environmental toxicology and mineralogy.

Graduates will be able to successfully pursue their career objectives in advanced education in graduate programs in areas such as atmospheric chemistry, geochemistry, toxicology and environmental chemistry and in a range of scientific careers including regulatory agencies, environmental consulting firms and industries concerned with the environmental impact and fate of their products.

Program Learning Outcomes

Upon completion of the program, students will have demonstrated the following abilities:

1. Attain applicable foundational knowledge, technical skills, and information literacy in several core areas of ecology, natural resources, & environmental sciences.
1. Actively collaborate with local and regional agencies, organizations, and community members that represent a diversity of perspectives.
1. Make and advocate for science-based and sustainable solutions to local and global environmental issues.
1. Apply, interpret, and communicate appropriate analytical and statistical techniques to answer data driven scientific questions.
1. Demonstrate geospatial literacy through the utilization of appropriate technology to identify and address environmental problems.

Student Preparation

We believe there is a place in our program for everyone with an interest in natural resources, environmental issues, business management, conservation and sustainability, environmental education, or just being in the great outdoors! Environmental sciences is a huge field that can accommodate a wide range of individual interests and skill whether it's working with wild animals, plants, people, or computers and technology. We encourage students to explore the diversity of job opportunities with federal, state, and tribal agencies, non-governmental organizations (NGOs), and private industries to help guide your studies.

Career Opportunities

Our faculty and partners are here to help you build an impressive resume of academic and work experience that will place you in the job or graduate program of your choice. Graduates can expect to find employment in federal, state, and

tribal government agencies, non-governmental organizations (NGOs), and education and research institutions. Students are also well prepared to enter graduate school. Students graduating from our program have taken positions with the U.S. Geological Survey, U.S. Bureau of Reclamation, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, U.S. Forest Service, Oregon Department of Forestry, Oregon State Police Wildlife Enforcement, Klamath County Health Department, Klamath Irrigation District, Klamath County Soil and Water Conservation District, the Nature Conservancy, and JELD-WEN Windows and Doors.

Degree Requirements

Students must meet the general education requirements, as stated elsewhere in this catalog, and complete the courses listed in the curriculum to obtain a Bachelor of Science in Environmental Sciences. Students are encouraged to develop a option area based on their own interests.

Students are required to pass each science course with a grade of "C" or better. This requirement is based on the quantitative skills needed in later courses as well as the degree of integration in subject material that is present throughout the program.

Masters Natural Resources

The graduate program leading to the degree of Master of Science in Natural Resources prepares students to apply basic scientific principles to the practical scientific problems encountered in business, industry, government, and education. Graduates from the program will be able to apply the techniques of scientific research to real-world environmental problems. Course work may include several important areas relevant to biology, including conservation, statistics, environmental, molecular, and cellular biology.

Students are simultaneously awarded both the BS and MS degrees in five years, thus shortening the normal time to receive both degrees from six years to five years. With this plan, students are moved quickly toward expanding their academic and scientific horizons based on the student's abilities and personal motivation. Students in the 3+2 plan are expected to successfully complete the requirements for both the BS and MS degrees by the end of their fifth year in college.

Specific Admission Requirements for 3+2

Students are simultaneously awarded both the BS and MS degrees in five years, thus shortening the normal time to receive both degrees from six years to five years. They must apply and be admitted into the MS program by the Spring semester of their junior year (preferred) or by the start of the Fall semester of the senior year and meet the course requirements listed below. Students applying to the 3+2 plan must have a minimum 3.0 GPA in their science coursework.

The application file for admission to the 3+2 plan must include:

1. A completed MS application form;
2. An Oregon Tech transcript;
3. Two letters of recommendation from faculty;
4. A statement of research interests; and
5. Satisfactory scores in 300 and 400 level classes

For students interested in environmental research, agency jobs, and professional schools where research experience is valued. The thesis option requires successful completion of the on-campus core, thesis research and an approved thesis, as well as elective coursework.

Expected Student Learning Outcomes

Upon completion of the MS, students will have achieved the following goals:

Mastery of the Scientific Method

Independent development and mastery of problem solving skills including experimental design, execution, critical analysis, and interpretation of the results of original scientific experimentation (thesis) or experiential learning (internship).

Dissemination of Scientific Products

Persuasive communication and defense of significant results of original scientific investigation presented in both written and oral format at a graduate peer-professional level.

Utilization of the Literature

Critical evaluation of an independently accessed comprehensive body of scientific literature which is project relevant and foundational in supporting and explaining research findings in both written and oral format.

Development of a Relevant Knowledge Base

Development of intrinsically held fundamental field-specific knowledge which will be applied to explain and defend research findings at a level of mastery expected by peer-professionals.

Professionalism & Self Responsibility

Maintain a consistent professional work ethic of independently taking the initiative and motivation to produce tangible products of a quality commensurate with peer-standards in graduate or professional schools or in the career field being pursued.

Outcomes Assessment Activities

The faculty will use a variety of methods for evaluating student learning outcomes. Students completing this degree program will give a public research seminar that will be evaluated by cognizant faculty members. A research thesis project will be designed, conducted, and publicly presented in writing and orally prior to defense and evaluation by the student's Graduate Advisory Committee.

Applied Physics Minor

Students wishing to pursue the minor in Applied Physics should consult with physics faculty in the Natural Sciences Department for advising.

The Minor in Applied Physics is available to any student and is especially recommended for individuals interested in pursuing careers or graduate studies in physical or applied sciences and engineering. The Minor in Applied Physics requires completion of 32 credits of coursework as outlined below. A grade of "C" or better is required in all courses applied toward the minor.

Required Coursework:

- PHY 221 - General Physics w/Calculus Credit Hours: 4
- PHY 222 - General Physics w/Calculus Credit Hours: 4
- PHY 223 - General Physics w/Calculus Credit Hours: 4
- MATH 254 - Vector Calculus I Credit Hours: 4
- MATH 321 - Appl Diff Equation I Credit Hours: 4
- At least 12 credits of upper-division physics Electives (PHY prefix)

Approved Upper-Division Electives:

Up to six credits of the upper-division elective coursework may be satisfied by approved non-PHY electives that utilize the technical application of physics (see list below; other courses must be approved by the physics faculty and the chair of the Natural Sciences department on a case-by-case basis). Of the 12 upper-division elective credits, six cannot be counted toward the student's major program.

Any course 300-level or higher that has a PHY prefix.

Examples include:

- PHY 311 - Intro to Modern Physics Credit Hours: 3
- PHY 330 - Electricity & Magnetism Credit Hours: 3
- PHY 448 - Geometric Optics Credit Hours: 4
- PHY 449 - Radiometry & Optical Detect Credit Hours: 4
- PHY 450 - Physical Optics Credit Hours: 4
- PHY 451 - Lasers Credit Hours: 4
- PHY 452 - Waveguides and Fiber Optics Credit Hours: 4
- PHY 453 - Optical Metrology Credit Hours: 4
- PHY 410 - Math Meth: Fourier Optics Credit Hours: 3

Approved non-PHY Electives:

- EE 341 - Electricity/Magnetism w/Transm Credit Hours: 4
- EE 343 - Solid State Electronic Devices Credit Hours: 3
- REE 344 - Nuclear Energy Credit Hours: 3
- REE 345 - Wind Power Credit Hours: 3
- MECH 318 - Fluid Mechanics Credit Hours: 4
- MECH 323 - Heat Transfer I Credit Hours: 3
- MECH 417 - Fluid Mechanics II Credit Hours: 3
- MECH 480 - Mechanical Vibrations Credit Hours: 3
- MECH 313 - Thermodynamics II Credit Hours: 3

Note:

Not all courses are offered every year or on every campus. Additional prerequisites may be required; see catalog descriptions and recent course schedules for details.

Biology Minor

The biology minor is open to all majors except Biology-Health Sciences majors. It is especially recommended for students who want to further their knowledge in biology as it relates to their chosen field. The minor offers specialized

courses in biology and will document student proficiency in specific areas of biology. A minimum of 24 credits is required to complete the minor. Any substitution for elective courses must be approved by an advisor in the Natural Sciences Department. Students are advised to pay strict attention to prerequisites when selecting courses for the biology minor.

Requirements of Minor

Required Core Courses:

- BIO 211 - Principles of Biology Credit Hours: 4
- BIO 212 - Principles of Biology Credit Hours: 4
- BIO 213 - Principles of Biology Credit Hours: 4

And a minimum of 12 credits upper-division course work from the following list:

[a] Courses offered in alternating years.

- BIO 313 - Botany and Plant Taxonomy Credit Hours: 4 [a]
- BIO 331 - Human Anatomy/Physiology I Credit Hours: 5
- BIO 332 - Human Anatomy/Physiology II Credit Hours: 5
- BIO 333 - Human Anatomy/Physiology III Credit Hours: 5
- BIO 337 - Aquatic Ecology Credit Hours: 4 [a]
- BIO 341 - Medical Genetics Credit Hours: 3
- BIO 443 - Cell Biology Credit Hours: 4
- BIO 345 - Medical Microbiology Credit Hours: 5
- BIO 352 - Developmental Biology Credit Hours: 4
- BIO 357 - Intro to Neuroscience Credit Hours: 3
- BIO 426 - Evolutionary Biology Credit Hours: 3
- BIO 436 - Immunology Credit Hours: 4
- BIO 495 - Research Project in Biology Credit Hours: Varies (1-4)
- BIO 455 - Senior Research Class Credit Hours: 1
- BIO 355 - Junior Research Class Credit Hours: 1

Biology-Health Sciences, Biology Research Sciences option, BS

Students will learn to apply concepts from a range of biological concepts such as biochemistry, molecular biology, genetics, and cell biology to a diverse array of questions ranging from how plants move towards light to the molecular basis of cancer. Students will also be exposed to interdisciplinary approaches to biology, such as bioinformatics, which combines genetics, and molecular biology. The broad scope of the Molecular and Cell Biology major makes it ideal for students interested in a wide variety of careers including medicine, postgraduate training in basic or translational research, biotechnology, science writing and policy, public health, and science education. Training in these areas is beneficial for careers in biological research, a number of high-tech industries, graduate school, and science professions. This challenging major requires creativity, rigor, and the ability to analyze, distill, and interpret data. A love of living systems and a level of comfort with complexity are both essential.

Curriculum:

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- BIO 211 - Principles of Biology Credit Hours: 4
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
- Social Science Elective Credit Hours: 3

Winter

- BIO 212 - Principles of Biology Credit Hours: 4
- MATH 112Z - Precalculus II: Trigonometry Credit Hours: 4
- Social Science Elective Credit Hours: 3
- Health Biology Elective Credit: 3

Spring

- BIO 213 - Principles of Biology Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4
- MATH 361 - Statistical Methods I Credit Hours: 4
  or
- STAT 243Z - Elementary Statistics I Credit Hours: 4
- Lower Division Health Biology Elective Credit Hours: 2

Sophomore Year

Fall

- BIO 345 - Medical Microbiology Credit Hours: 5
- CHE 221 - General Chemistry I Credit Hours: 5
- MATH 251 - Differential Calculus Credit Hours: 4
- Humanities Elective Credit Hours: 3

Winter

- BIO 209 - Current Research Tpc Med Sci I Credit Hours: 1
- CHE 222 - General Chemistry II Credit Hours: 5
- MATH 252 - Integral Calculus Credit Hours: 4
- SPE 321 - Small Group/Team Comm Credit Hours: 3
- Upper Division Health Biology Elective Credit Hours: 3

Spring

- CHE 223 - General Chemistry III Credit Hours: 5
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4
- Upper Division Health Biology Elective Credit Hours: 4
- Humanities Elective Credit Hours: 3

Junior Year

Fall

- CHE 331 - Organic Chemistry I Credit Hours: 4 [d]
- PHY 221 - General Physics w/Calculus Credit Hours: 4
- Upper Division Health Biology Elective Credit Hours: 4
- Humanities Elective Credit Hours: 3

Winter

- CHE 332 - Organic Chemistry II Credit Hours: 4
- PHY 222 - General Physics w/Calculus Credit Hours: 4 [d]
- Upper Division Health Biology Elective Credit Hours: 4
- Humanities Elective Credit Hours: 3

Spring

- CHE 333 - Organic Chemistry III Credit Hours: 4
- PHY 223 - General Physics w/Calculus Credit Hours: 4 [d]
- WRI 327 - Advanced Tech Writing Credit Hours: 3 [g]
- Health Biology Elective Credit: 3

Senior Year

Fall

- CHE 450 - Biochemistry I Credit Hours: 4
- Upper Division Health Biology Elective Credit Hours: 3[c]
- Social Science Elective Credit Hours: 3
- Elective Credit Hours: 3[e]
- Elective Credit Hours: 3[e]

Winter

- BIO 409 - Crnt Rsch Tpcs in Med Sci II Credit Hours: 2
- BIO 346 - Pathophysiology I Credit Hours: 3
- CHE 451 - Biochemistry II Credit Hours: 4
- Social Science Elective Credit Hours: 3
- Elective Credit Hours: 3

Spring

- Upper Division Health Biology Elective Credit Hours: 3[c]
- Upper Division Health Biology Elective Credit Hours: 4[c]
- Upper Division Health Biology Elective Credit Hours: 4[c]
- Elective Credit Hours: 3[e]

Lower Division Health Biology Electives

- BIO 216 - Intro to Veterinary Medicine Credit Hours: 4
- BIO 226 - Intro to Wildlife Rehab Credit Hours: 3
- BIO 200 - Medical Terminology Credit Hours: 2
- BIO 205 - Nutrition Credit Hours: 3

Upper Division Health Biology Electives

- BIO 495 - Research Project in Biology Credit Hours: Varies (1-4)
- BIO 461 - Human Cadaver Dissection Credit Hours: 1
- BIO 462 - Human Cadaver Dissection Credit Hours: 1
- BIO 426 - Evolutionary Biology Credit Hours: 3
- BIO 435 - Exercise Physiology Credit Hours: 3
- BIO 436 - Immunology Credit Hours: 4
- BIO 352 - Developmental Biology Credit Hours: 4
- BIO 357 - Intro to Neuroscience Credit Hours: 3
- BIO 341 - Medical Genetics Credit Hours: 3
- BIO 347 - Pathophysiology II Credit Hours: 3
- BIO 326 - Parasitology Credit Hours: 4
- CHE 495 - Research Project in Chemistry Credit Hours: Varies (1-4)
- CHE 452 - Biochemistry III Credit Hours: 4
- ENV 434 - Advanced Data Analysis Credit Hours: 4
- STAT 414 - Stat Methods in Epidemiology Credit Hours: 4

Total for a B.S. in Biology Health Sciences, Biological Research option: 181 Credit Hours

[c] Minimum of 21 credits of upper-division health biology electives must be completed, chosen from the upper-division list above

[d] PHY 221, PHY 222, PHY 223, may be replaced by PHY 201, PHY 202, PHY 203 with advisor consent

[e] Advisor approval of all elective choices is required. Additional courses from the health biology lists above, and/or suitable courses from BUS, COM, ENV, MATH, PSY, or SOC are recommended

[f] SPE 321 may be replaced by COM 205 or COM 225

[g] WRI 327 may be replaced by WRI 345 or WRI 410

When choosing electives or substituting courses, students are responsible for completing a minimum of 60 credits of upper-division work before a degree will be awarded. Upper-division work is defined as 300 and 400 level classes at a bachelor's degree granting institution.

Biology-Health Sciences, BS

Degree Requirements

The minimum graduation requirement is 181 credit hours of prescribed coursework. Students must meet the general education requirements, as stated elsewhere in this catalog, and satisfactorily complete the courses listed in this curriculum to obtain a Bachelor of Science degree in Biology-Health Sciences. Biology-Health Sciences students must complete every science course with a minimum grade of "C" and must maintain a minimum grade point average of 2.5 in lower division science courses to advance to upper-division science courses in the major.

Because the prerequisite requirements and recommended courses for entry into health professions and graduate schools differ, some upper-division courses may be substituted for others, with approval of your academic advisor.

Curriculum

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- BIO 211 - Principles of Biology Credit Hours: 4
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
- Social Science Elective Credit Hours: 3

Winter

- BIO 109 - Intro to Medical Sciences Credit Hours: 2
- BIO 212 - Principles of Biology Credit Hours: 4
- MATH 112Z - Precalculus II: Trigonometry Credit Hours: 4
- Social Science Elective Credit Hours: 3

Spring

- BIO 213 - Principles of Biology Credit Hours: 4
- MATH 361 - Statistical Methods I Credit Hours: 4 [a]
- Health Biology Elective Credit Hours: 2 (lower-division) [b]
- COM 111Z - Public Speaking Credit Hours: 4

Sophomore Year

Fall

- BIO 345 - Medical Microbiology Credit Hours: 5
- CHE 221 - General Chemistry I Credit Hours: 5
- MATH 251 - Differential Calculus Credit Hours: 4
  Humanities Elective: 3

Winter

- BIO 209 - Current Research Tpc Med Sci I Credit Hours: 1
- CHE 222 - General Chemistry II Credit Hours: 5
- MATH 252 - Integral Calculus Credit Hours: 4
- SPE 321 - Small Group/Team Comm Credit Hours: 3 [f]
- Health Biology Elective Credit Hours: 3 (upper-division) [c]

Spring

- CHE 223 - General Chemistry III Credit Hours: 5
- WRI 122Z - Composition II Credit Hours: 4
  Or
- WRI 227Z - Technical Writing Credit Hours: 4
- Health Biology Elective Credit Hours: 4 (upper-division) [c]
- Humanities Elective Credit Hours: 3

Junior Year

Fall

- BIO 331 - Human Anatomy/Physiology I Credit Hours: 5
- CHE 331 - Organic Chemistry I Credit Hours: 4
- PHY 221 - General Physics w/Calculus Credit Hours: 4 [d]

Winter

- BIO 332 - Human Anatomy/Physiology II Credit Hours: 5
- CHE 332 - Organic Chemistry II Credit Hours: 4
- PHY 222 - General Physics w/Calculus Credit Hours: 4 [d]
- Humanities Elective Credit Hours: 3

Spring

- BIO 333 - Human Anatomy/Physiology III Credit Hours: 5
- CHE 333 - Organic Chemistry III Credit Hours: 4
- PHY 223 - General Physics w/Calculus Credit Hours: 4 [d]
- WRI 327 - Advanced Tech Writing Credit Hours: 3 [g]

Senior Year

Fall

- CHE 450 - Biochemistry I Credit Hours: 4
- Health Biology Elective Credit Hours: 3 (upper-division) [c]
- Social Science Elective Credit Hours: 3
- Elective Credit Hours: 3 [e]
- Elective Credit Hours: 3 [e]

Winter

- BIO 346 - Pathophysiology I Credit Hours: 3
- BIO 409 - Crnt Rsch Tpcs in Med Sci II Credit Hours: 2
- CHE 451 - Biochemistry II Credit Hours: 4
- Social Science Elective Credit Hours: 3
- Elective Credit Hours: 3

Spring

- Health Biology Elective Credit Hours: 3 (upper-division) [c]
- Health Biology Elective Credit Hours: 4 (upper-division) [c]
- Health Biology Elective Credit Hours: 4 (upper-division) [c]
- Elective Credit Hours: 3 [e]

Health Biology Electives (lower-division):

- BIO 200 - Medical Terminology Credit Hours: 2
- BIO 205 - Nutrition Credit Hours: 3
- BIO 216 - Intro to Veterinary Medicine Credit Hours: 4
- BIO 226 - Intro to Wildlife Rehab Credit Hours: 3

Health Biology Electives (upper-division):

- BIO 326 - Parasitology Credit Hours: 4
- BIO 341 - Medical Genetics Credit Hours: 3
- BIO 443 - Cell Biology Credit Hours: 4
- BIO 347 - Pathophysiology II Credit Hours: 3
- BIO 352 - Developmental Biology Credit Hours: 4
- BIO 357 - Intro to Neuroscience Credit Hours: 3
- BIO 426 - Evolutionary Biology Credit Hours: 3
- BIO 435 - Exercise Physiology Credit Hours: 3
- BIO 436 - Immunology Credit Hours: 4
- BIO 461 - Human Cadaver Dissection Credit Hours: 1
- BIO 462 - Human Cadaver Dissection Credit Hours: 1
- BIO 495 - Research Project in Biology Credit Hours: Varies (1-4)
- CHE 360 - Clinical Pharmacology/Hlth Prf Credit Hours: 3
- CHE 452 - Biochemistry III Credit Hours: 4
- CHE 495 - Research Project in Chemistry Credit Hours: Varies (1-4)
- STAT 414 - Stat Methods in Epidemiology Credit Hours: 4

Total for a B.S. in Biology-Health Sciences: 181 Credit Hours

[a] MATH 361 may be replaced by STAT 243Z
[b] Minimum of 2 credits of lower-division health biology elective must be completed, chosen from the lower-division list above. Alternately, an additional elective from the upper-division list may be taken, in which case a total of at least 23 credits of upper-division health biology electives are required
[c] Minimum of 21 credits of upper-division health biology electives must be completed, chosen from the upper-division list above
[d] PHY 221, PHY 222, PHY 223, may be replaced by PHY 201, PHY 202, PHY 203 with advisor consent
[e] Advisor approval of all elective choices is required. Additional courses from the health biology lists above, and/or suitable courses from BUS, COM, ENV, MATH, PSY, or SOC are recommended

[f] SPE 321 may be replaced by COM 205 or COM 218Z

[g] WRI 327 may be replaced by WRI 345 or WRI 410

When choosing electives or substituting courses, students are responsible for completing a minimum of 60 credits of upper-division work before a degree will be awarded. Upper-division work is defined as 300 and 400 level classes at a bachelor's degree granting institution.

Biomedical Sciences, MS

First Year

First Year

Fall

Fall

- BIO 509 - Introduction to Biomedical Sciences Credit Hours: 2
- BIO 510 - Current Issues in Biomedical Sciences Credit Hours: 1
- Elective Credit Hours: 13

Winter

Winter

- BIO 510 - Current Issues in Biomedical Sciences Credit Hours: 1
- Elective Credit Hours: 13

Spring

Spring

- BIO 596 - Biomedical capstone Credit Hours: 3
- BIO 510 - Current Issues in Biomedical Sciences Credit Hours: 1
- Elective Credit Hours: 11

Elective Credits

Elective Credits - Choose 37 credits from the list below:

- BIO 522 - Introduction to Neuroscience Credit Hours: 3
- BIO 526 - Evolutionary Biology Credit Hours: 3
- BIO 527 - Special Topics in Neuroscience Credit Hours: 1
- BIO 534 - Advanced Data Analysis Credit Hours: 4
- BIO 536 - Immunology Credit Hours: 4
- BIO 538 - Conservation biology Credit Hours: 3
- BIO 541 - Genetic Engineering & Gene Therapy Credit Hours: 3
- BIO 542 - Biological Physics Credit Hours: 3
- BIO 543 - Cell Biology Credit Hours: 3
- BIO 545 - Comparative Virology Credit Hours: 3
- BIO 546 - Pathophysiology I Credit Hours: 3
- BIO 547 - Pathophysiology II Credit Hours: 3
- BIO 552 - Developmental Biology Credit Hours: 4
- BIO 554 - Environmental Health Credit Hours: 3
- BIO 561 - Human Cadaver Dissection Credit Hours: 1
- BIO 562 - Human Cadaver Dissection Credit Hours: 1
- BIO 567 - Plant Ecology Credit Hours: 3
- BIO 597 - Internship/shadowing Credit Hours: 1-4
- CHE 550 - Biochemistry I Credit Hours: 4
- CHE 551 - Biochemistry II Credit Hours: 4
- CHE 552 - Biochemistry III Credit Hours: 4
- CHE 565 - Fate and Transport of Pollutants Credit Hours: 4
- STAT 505 - Biostatistics I Credit Hours: 3
- STAT 515 - Epidemiology I Credit Hours: 3
- WRI 510 - Grant Proposal Writing Credit Hours: 3
- WRI 521 - Writing at the Grad Level Credit Hours: 3
- ALH 565 - Population Health Issues for Allied Health Professionals Credit Hours: 3
- ALH 585 - Financial Consid. & Pol. Strat Credit Hours: 3
- ALH 510 - The Science of Evidence-Based Medicine Credit Hours: 3
- ALH 515 - Scientific Writing & Healthcare Credit Hours: 3
- ALH 545 - Pertinent Ethical & Legal Cons Credit Hours: 3

Biomedical Sciences, Thesis option, MS

First Year

First Year

Fall

Fall

- BIO 501 - Introduction to Graduate Studies Credit Hours: 3
- BIO 509 - Introduction to Biomedical Sciences Credit Hours: 2
- Elective Credit Hours: 3

Winter

Winter

- BIO 595 - Graduate Research/Thesis Credit Hours: 1-2
- Elective Credit Hours: 3
- BIO 534 - Advanced Data Analysis Credit Hours: 4

Spring

Spring

- BIO 595 - Graduate Research/Thesis Credit Hours: 1-2
- Elective Credit Hours: 8

Second Year

Second Year

Fall

Fall

- BIO 595 - Graduate Research/Thesis Credit Hours: 1-2
- BIO 510 - Current Issues in Biomedical Sciences Credit Hours: 1
- Elective Credit Hours: 3

Winter

Winter

- BIO 595 - Graduate Research/Thesis Credit Hours: 1-2
- BIO 510 - Current Issues in Biomedical Sciences Credit Hours: 1
- Elective Credit Hours: 3

Spring

Spring

- BIO 595 - Graduate Research/Thesis Credit Hours: 1-2
- BIO 510 - Current Issues in Biomedical Sciences Credit Hours: 1
- Elective Credit Hours: 3

Elective Credits

Elective Credits - Choose 23 credits from the list below:

- BIO 522 - Introduction to Neuroscience Credit Hours: 3
- BIO 526 - Evolutionary Biology Credit Hours: 3
- BIO 527 - Special Topics in Neuroscience Credit Hours: 1
- BIO 534 - Advanced Data Analysis Credit Hours: 4
- BIO 535 - Exercise Physiology Credit Hours: 3

- BIO 536 - Immunology Credit Hours: 4
- BIO 537 - Advanced Data Analysis II Credit Hours: 4
- BIO 538 - Conservation biology Credit Hours: 3
- BIO 541 - Genetic Engineering & Gene Therapy Credit Hours: 3
- BIO 542 - Biological Physics Credit Hours: 3
- BIO 543 - Cell Biology Credit Hours: 3
- BIO 545 - Comparative Virology Credit Hours: 3
- BIO 546 - Pathophysiology I Credit Hours: 3
- BIO 547 - Pathophysiology II Credit Hours: 3
- BIO 552 - Developmental Biology Credit Hours: 4
- BIO 554 - Environmental Health Credit Hours: 3
- BIO 561 - Human Cadaver Dissection Credit Hours: 1
- BIO 562 - Human Cadaver Dissection Credit Hours: 1
- BIO 567 - Plant Ecology Credit Hours: 3
- BIO 585 - Ecoregional Studies Credit Hours: 3
- BIO 596 - Biomedical capstone Credit Hours: 3
- BIO 597 - Internship/shadowing Credit Hours: 1-4
- CHE 550 - Biochemistry I Credit Hours: 4
- CHE 551 - Biochemistry II Credit Hours: 4
- CHE 552 - Biochemistry III Credit Hours: 4
- CHE 565 - Fate and Transport of Pollutants Credit Hours: 4
- STAT 505 - Biostatistics I Credit Hours: 3
- STAT 515 - Epidemiology I Credit Hours: 3
- WRI 510 - Grant Proposal Writing Credit Hours: 3
- WRI 521 - Writing at the Grad Level Credit Hours: 3
- ALH 565 - Population Health Issues for Allied Health Professionals Credit Hours: 3
- ALH 575 - Methods of Research for Allied Health Professionals Credit Hours: 3
- ALH 510 - The Science of Evidence-Based Medicine Credit Hours: 3
- ALH 515 - Scientific Writing & Healthcare Credit Hours: 3
- ALH 545 - Pertinent Ethical & Legal Cons Credit Hours: 3

Chemistry Minor

Oregon Tech offers a minor in chemistry to students in all majors interested in deepening their knowledge of chemistry, the "central science". A minor in chemistry allows students the opportunity to gain understanding of chemical phenomena, become proficient in techniques, and develop their abilities applying fundamental chemistry concepts to more complex problems in fields from medicine to renewable energy to materials science. A chemistry minor can help prepare students for graduate school, medical school, or professional laboratory or research work.

The minor includes a required core of one year of general chemistry and one term of organic chemistry. Students must then choose 16 credits of chemistry electives to complete the minor. Of these electives, 12 must be upper-division and at least 8 must be CHE courses. A minimum of 16 credits applied towards the minor must be earned at Oregon Tech.

Students wishing to pursue the minor in chemistry should consult with both their primary academic advisor and a chemistry minor advisor.

Requirements of Minor

Required Core Courses (17 - 19 credits):

- CHE 201 - General Chemistry I Credit Hours: 3
- CHE 204 - General Chemistry I Lab Credit Hours: 1
  or
- CHE 221 - General Chemistry I Credit Hours: 5

- CHE 202 - General Chemistry II Credit Hours: 3
- CHE 205 - General Chemistry II Lab Credit Hours: 1
  or
- CHE 222 - General Chemistry II Credit Hours: 5

- CHE 203 - General Chemistry III Credit Hours: 3
- CHE 206 - General Chemistry III Lab Credit Hours: 1
  or
- CHE 223 - General Chemistry III Credit Hours: 5

- CHE 331 - Organic Chemistry I Credit Hours: 4

Elective Courses

(16 credits required; at least 12 must be upper division (300-level or higher) and at least 8 must be CHE courses) At least 6 elective credits must not be counted towards a major (or another minor or program) as required courses or technical electives:

- CHE 260 - Electrochemistry for RE Applic Credit Hours: 4

- CHE 305 - Nanoscience & Nanotech Credit Hours: 4
  or
- ENGR 305 - Nanoscience & Nanotech Credit Hours: 4
  or
- PHY 305 - Nanoscience & Nanotech Credit Hours: 4

- CHE 315 - Environmental Analytical Chemistry Credit Hours: 4
- CHE 332 - Organic Chemistry II Credit Hours: 4
- CHE 333 - Organic Chemistry III Credit Hours: 4
- CHE 450 - Biochemistry I Credit Hours: 4
- CHE 451 - Biochemistry II Credit Hours: 4
- CHE 452 - Biochemistry III Credit Hours: 4
- CHE 465 - Fate/Transport of Pollutants Credit Hours: 4
- EE 343 - Solid State Electronic Devices Credit Hours: 3
- ENGR 355 - Thermodynamics Credit Hours: 3
- MECH 360 - Engineering Materials II Credit Hours: 3
- MECH 260 - Engineering Materials I Credit Hours: 3
- MLS 415 - Clinical Chemistry I Credit Hours: 6
- MLS 416 - Clinical Chemistry II Credit Hours: 6
- MLS 417 - Clinical Chemistry III Credit Hours: 2
- PHY 311 - Intro to Modern Physics Credit Hours: 3
- REE 331 - Fuel Cells Credit Hours: 3
- REE 333 - Batteries Credit Hours: 3
- REE 335 - Hydrogen Credit Hours: 3

- REE 337 - Materials for RE Applications Credit Hours: 3
- CHE 495 - Research Project in Chemistry Credit Hours: Varies (1-4)
- CHE 355 - Junior Research Class Credit Hours: 1
- CHE 455 - Senior Research Class Credit Hours: 1

Environmental Sciences, option in Environmental Business and Economics, BS

Degree Requirements

Students must meet the general education requirements, as stated elsewhere in this catalog, and complete the courses listed in the curriculum to obtain a Bachelor of Science in Environmental Sciences. Students are encouraged to develop a track emphasis area based on their own interests.

Students are required to pass each science course with a grade of "C" or better. This requirement is based on the quantitative skills needed in later courses as well as the degree of integration in subject material that is present throughout the program.

The Environmental Sciences Curriculum

Students within the Environmental Sciences program put their knowledge into practice in the best place possible—the great outdoors. Emphasis is placed on active experiential learning. The program offers numerous and diverse opportunities for students to engage in applied research and resource management projects with the support of faculty and professionals through local and regional partnerships.

This map shows required courses for the degree and recommended terms to take each course (the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability).

Curriculum

Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- BIO 211 - Principles of Biology Credit Hours: 4
- ENV 108 - Mentorship and Team Building Credit Hours: 1
- ENV 111 - Intro to Env Sciences Credit Hours: 4
- GIS 103 - The Digital Earth Credit Hours: 3
- Humanities Elective Credit Hours: 3

Winter

- BIO 212 - Principles of Biology Credit Hours: 4
- GIS 134 - Geographic Information Systems Credit Hours: 3
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

Spring

- BIO 213 - Principles of Biology Credit Hours: 4

- GIS 205 - Mobile and Web GIS Credit Hours: 3
- MATH 112Z - Precalculus II: Trigonometry Credit Hours: 4
- GEOG 105 - Physical Geography Credit Hours: 4

Sophomore Year

Fall

- CHE 221 - General Chemistry I Credit Hours: 5
- COM 111Z - Public Speaking Credit Hours: 4
- ENV 217 - Intro to Natural Resources Management Credit Hours: 4
- Business Option Course

Winter

- CHE 222 - General Chemistry II Credit Hours: 5
- ENV 224 - Scientific Reason & Method Credit Hours: 3
- ENV 226 - Environmental Data Analysis Credit Hours: 3
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4

Spring

- CHE 223 - General Chemistry III Credit Hours: 5
- ECO 201 - Principles of Microeconomics Credit Hours: 3
  or
- ECO 202 - Principles of Macroeconomics Credit Hours: 3
- MATH 361 - Statistical Methods I Credit Hours: 4
- Business Option Course

Junior Year

Fall

- ENV 355 - Careers/Professionalism in Env Sci Credit Hours: 3
- ENV 108 - Mentorship and Team Building Credit Hours: 1
- MATH 362 - Statistical Methods II Credit Hours: 4
- Social Science Elective Credit Hours: 3
- Business Option Course

Winter

- PHY 201 - General Physics Credit Hours: 4
- ENV 434 - Advanced Data Analysis Credit Hours: 4
- ENV 314 - Environmental Policy and Management Credit Hours: 3
- Business Option Course

Spring

- Business Option Course
- Business Option Course
- Business Option Course
- Upper Division WRI Elective

Senior Year

Fall

- SPE 321 - Small Group/Team Comm Credit Hours: 3
- Business Option Course
- Business Option Course
- Humanities Elective Credit Hours: 3
- Social Science Elective Credit Hours: 3

Winter

- ENV 485 - Habitat Management Credit Hours: 3
- Social Science Elective Credit Hours: 3
- Business Option Course
- Business Option Course

Spring

- ENV 484 - Sustainable Human Ecology Credit Hours: 4
- Humanities Elective Credit Hours: 3
- Business Option Course
- Business Option Course
- Business Option Course

Total for a B.S. in Environmental Science, option in Environmental Business and Economics: 180 Credit Hours

Business Option Required Courses

- BUS 215 - Principles of Management Credit Hours: 3
- BUS 223 - Marketing I Credit Hours: 3
- BUS 314 - Entrepreneurship I Credit Hours: 3
- BUS 318 - Marketing II Credit Hours: 3
- BUS 319 - Integrated Marketing Comm. Credit Hours: 3
- BUS 335 - Entrepreneurship II Credit Hours: 3
- BUS 441 - Leadership I Credit Hours: 3
- COM 248 - Digital Media Production Credit Hours: 3
- ANTH 452 - Globalization Credit Hours: 3
  or
- HIST 452 - Globalization & Pac NW Credit Hours: 3

Business Option Technical Electives

Complete 23 credit hours from this list of options

- BA 212 - Prin of Accounting II Credit Hours: 4
- BUS 326 - Sales/Sales Management Credit Hours: 3
- ECO 201 - Principles of Microeconomics Credit Hours: 3
- ECO 202 - Principles of Macroeconomics Credit Hours: 3
- GEOG 315 - Climatology & Atmospheric Sci Credit Hours: 4
- PHIL 342 - Business Ethics Credit Hours: 3
- PSY 347 - Organizational Behavior Credit Hours: 3
- PSY 201Z - Introduction to Psychology I Credit Hours: 4

Environmental Sciences, option in Environmental Chemistry, BS

Freshman Year

Fall

- BIO 211 - Principles of Biology Credit Hours: 4
- ENV 108 - Mentorship and Team Building Credit Hours: 1
- ENV 111 - Intro to Env Sciences Credit Hours: 4
- GIS 103 - The Digital Earth Credit Hours: 3

Winter

- BIO 212 - Principles of Biology Credit Hours: 4
- GIS 134 - Geographic Information Systems Credit Hours: 3
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

Spring

- BIO 213 - Principles of Biology Credit Hours: 4
- GEOG 105 - Physical Geography Credit Hours: 4
- GIS 205 - Mobile and Web GIS Credit Hours: 3
- MATH 112Z - Precalculus II: Trigonometry Credit Hours: 4

Sophomore Year

Fall

- CHE 221 - General Chemistry I Credit Hours: 5
- COM 111Z - Public Speaking Credit Hours: 4
- ENV 217 - Intro to Natural Resources Management Credit Hours: 4
- Chemistry Option Course: 3

Winter

- CHE 222 - General Chemistry II Credit Hours: 5
- ENV 224 - Scientific Reason & Method Credit Hours: 3
- ENV 226 - Environmental Data Analysis Credit Hours: 3
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4

Spring

- CHE 223 - General Chemistry III Credit Hours: 5
- ECO 201 - Principles of Microeconomics Credit Hours: 3
  or
- ECO 202 - Principles of Macroeconomics Credit Hours: 3
- MATH 361 - Statistical Methods I Credit Hours: 4
- Chemistry Option Course: 3

Junior Year

Fall

- ENV 355 - Careers/Professionalism in Env Sci Credit Hours: 3
- ENV 108 - Mentorship and Team Building Credit Hours: 1
- MATH 362 - Statistical Methods II Credit Hours: 4
- Social Science Elective Credits: 3
- Chemistry Option Course: 3

Winter

- PHY 201 - General Physics Credit Hours: 4
- ENV 434 - Advanced Data Analysis Credit Hours: 4
- ENV 314 - Environmental Policy and Management Credit Hours: 3
- Chemistry Option Course: 3

Spring

- Chemistry Option Course: 3
- Chemistry Option Course: 3
- Chemistry Option Course: 3
- Upper Division WRI Elective: 3

Senior Year

Fall

- SPE 321 - Small Group/Team Comm Credit Hours: 3
- Chemistry Option Course: 3
- Chemistry Option Course: 3
- Humanitites Elective Credits: 3

Winter

- ENV 485 - Habitat Management Credit Hours: 3
- Social Science Elective Credits: 3
- Chemistry Option Course: 3
- Chemistry Option Course: 3

Spring

- ENV 484 - Sustainable Human Ecology Credit Hours: 4
- Humanties Elective Credit Hours: 3
- Chemistry Option Course: 3
- Chemistry Option Course: 3
- Chemistry Option Course: 3

Total Credits: 180

Environmental Chemistry Option Required Courses:

- CHE 465 - Fate/Transport of Pollutants Credit Hours: 4
- CHE 451 - Biochemistry II Credit Hours: 4
- CHE 315 - Environmental Analytical Chemistry Credit Hours: 4
- CHE 331 - Organic Chemistry I Credit Hours: 4
- GEOG 335 - Soils Credit Hours: 4

Environmental Chemistry Option Elective Courses:

- BIO 355 - Junior Research Class Credit Hours: 1
- BIO 377 - Wildlife Ecology and Management Credit Hours: 4
- BIO 386 - Ornithology Credit Hours: 4
- BIO 428 - Fisheries Credit Hours: 4
- BIO 455 - Senior Research Class Credit Hours: 1
- BIO 495 - Research Project in Biology Credit Hours: Varies (1-4)
- CHE 450 - Biochemistry I Credit Hours: 4
- CHE 452 - Biochemistry III Credit Hours: 4
- CHE 332 - Organic Chemistry II Credit Hours: 4
- CHE 333 - Organic Chemistry III Credit Hours: 4
- ENV 495 - Research in Env. Sciences Credit Hours: 4
- ENV 485 - Habitat Management Credit Hours: 3
- ENV 321 - Water Resources Credit Hours: 4
- ENV 420 - Externship in Env Sci Credit Hours: Varies (1-9)
- PHY 305 - Nanoscience & Nanotech Credit Hours: 4
- REE 331 - Fuel Cells Credit Hours: 3
- REE 333 - Batteries Credit Hours: 3
- REE 337 - Materials for RE Applications Credit Hours: 3

Environmental Sciences, option in Environmental Policy and Governance, BS

Degree Requirements

Students must meet the general education requirements, as stated elsewhere in this catalog, and complete the courses listed in the curriculum to obtain a Bachelor of Science in Environmental Sciences. Students are encouraged to develop a track emphasis area based on their own interests.

Students are required to pass each science course with a grade of "C" or better. This requirement is based on the quantitative skills needed in later courses as well as the degree of integration in subject material that is present throughout the program.

The Environmental Sciences Curriculum

Students within the Environmental Sciences program put their knowledge into practice in the best place possible—the great outdoors. This map shows required courses for the degree and recommended terms to take each course (the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability).

Curriculum

Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- BIO 211 - Principles of Biology Credit Hours: 4
- ENV 108 - Mentorship and Team Building Credit Hours: 1
- ENV 111 - Intro to Env Sciences Credit Hours: 4
- GIS 103 - The Digital Earth Credit Hours: 3
- Humanities Elective Credit Hours: 3

Winter

- BIO 212 - Principles of Biology Credit Hours: 4
- GIS 134 - Geographic Information Systems Credit Hours: 3
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

Spring

- BIO 213 - Principles of Biology Credit Hours: 4
- GIS 205 - Mobile and Web GIS Credit Hours: 3
- MATH 112Z - Precalculus II: Trigonometry Credit Hours: 4
- GEOG 105 - Physical Geography Credit Hours: 4

Sophomore Year

Fall

- CHE 221 - General Chemistry I Credit Hours: 5
- COM 111Z - Public Speaking Credit Hours: 4

- ENV 217 - Intro to Natural Resources Management Credit Hours: 4
- Policy Option Course

Winter

- CHE 222 - General Chemistry II Credit Hours: 5
- ENV 224 - Scientific Reason & Method Credit Hours: 3
- ENV 226 - Environmental Data Analysis Credit Hours: 3
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4

Spring

- CHE 223 - General Chemistry III Credit Hours: 5
- ENV 226 - Environmental Data Analysis Credit Hours: 3
- ECO 201 - Principles of Microeconomics Credit Hours: 3
  or
- ECO 202 - Principles of Macroeconomics Credit Hours: 3
- MATH 361 - Statistical Methods I Credit Hours: 4
- Policy Option Course

Junior Year

Fall

- ENV 355 - Careers/Professionalism in Env Sci Credit Hours: 3
- ENV 108 - Mentorship and Team Building Credit Hours: 1
- MATH 362 - Statistical Methods II Credit Hours: 4
- Social Science Elective Credit Hours: 3
- Policy Option Course

Winter

- PHY 201 - General Physics Credit Hours: 4
- ENV 314 - Environmental Policy and Management Credit Hours: 3
- ENV 434 - Advanced Data Analysis Credit Hours: 4
- Policy Option Course

Spring

- Policy Option Course
- Policy Option Course
- Policy Option Course
- Upper Divisin WRI Elective

Senior Year

Fall

- SPE 321 - Small Group/Team Comm Credit Hours: 3
- Humanities Elective Credit Hours: 3
- Policy Option Course
- Policy Option Course
- Social Science Elective Credit Hours: 3

Winter

- ENV 485 - Habitat Management Credit Hours: 3
- Social Science Elective Credit Hours: 3
- Policy Option Course
- Policy Option Course

Spring

- ENV 484 - Sustainable Human Ecology Credit Hours: 4
- Humanities Elective Credit Hours: 3
- Policy Option Course
- Policy Option Course
- Policy Option Course

Total for a B.S. in Environmental Sciences, option in Environmental Policy and Governance: 180 Credit Hours

Policy Option Required Courses

- ANTH 452 - Globalization Credit Hours: 3
- BUS 441 - Leadership I Credit Hours: 3
- ENV 314 - Environmental Policy and Management Credit Hours: 3
- GEOG 315 - Climatology & Atmospheric Sci Credit Hours: 4
- PHM 321 - Community Program Planning Credit Hours: 3
- SOC 205 - Current Health Issues Credit Hours: 3
- SOC 225 - Medical Sociology Credit Hours: 3

Policy Option Technical Electives

Complete 25 credit hours from this list of options

- BUS 308 - Prin of International Business Credit Hours: 3
- COM 115 - Intro to Mass Communication Credit Hours: 3
- COM 205 - Intercultural Comm Credit Hours: 3
- COM 256 - Public Relations Credit Hours: 3
- COM 276 - Democracy and Media Credit Hours: 3
- ECO 202 - Principles of Macroeconomics Credit Hours: 3
- HUM 345 - Digital Culture and Society Credit Hours: 3
- PHIL 342 - Business Ethics Credit Hours: 3

- WRI 122Z - Composition II Credit Hours: 4

Environmental Sciences, option in Recreation and Science, BS

Degree Requirements

Students must meet the general education requirements, as stated elsewhere in this catalog, and complete the courses listed in the curriculum to obtain a Bachelor of Science in Environmental Sciences. Students are encouraged to develop a track emphasis area based on their own interests.

Students are required to pass each science course with a grade of "C" or better. This requirement is based on the quantitative skills needed in later courses as well as the degree of integration in subject material that is present throughout the program.

The Environmental Sciences Curriculum

Students within the Environmental Sciences program put their knowledge into practice in the best place possible—the great outdoors. This map shows required courses for the degree and recommended terms to take each course (the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability).

Curriculum

Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- BIO 211 - Principles of Biology Credit Hours: 4
- ENV 108 - Mentorship and Team Building Credit Hours: 1
- ENV 111 - Intro to Env Sciences Credit Hours: 4
- GIS 103 - The Digital Earth Credit Hours: 3
- Humanities Elective Credit Hours: 3

Winter

- BIO 212 - Principles of Biology Credit Hours: 4
- GIS 134 - Geographic Information Systems Credit Hours: 3
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

Spring

- BIO 213 - Principles of Biology Credit Hours: 4
- GIS 205 - Mobile and Web GIS Credit Hours: 3
- MATH 112Z - Precalculus II: Trigonometry Credit Hours: 4
- GEOG 105 - Physical Geography Credit Hours: 4

Sophomore Year

Fall

- CHE 221 - General Chemistry I Credit Hours: 5
- COM 111Z - Public Speaking Credit Hours: 4
- ENV 217 - Intro to Natural Resources Management Credit Hours: 4
- Recreation Option Course

Winter

- CHE 222 - General Chemistry II Credit Hours: 5
- ENV 224 - Scientific Reason & Method Credit Hours: 3
- ENV 226 - Environmental Data Analysis Credit Hours: 3
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4

Spring

- CHE 223 - General Chemistry III Credit Hours: 5
- ECO 201 - Principles of Microeconomics Credit Hours: 3
  or
- ECO 202 - Principles of Macroeconomics Credit Hours: 3
- MATH 361 - Statistical Methods I Credit Hours: 4
- Recreation Option Course

Junior Year

Fall

- ENV 108 - Mentorship and Team Building Credit Hours: 1
- ENV 355 - Careers/Professionalism in Env Sci Credit Hours: 3
- MATH 362 - Statistical Methods II Credit Hours: 4
- Social Science Elective Credit: 3
- Recreation Option Course

Winter

- PHY 201 - General Physics Credit Hours: 4
- ENV 314 - Environmental Policy and Management Credit Hours: 3
- ENV 434 - Advanced Data Analysis Credit Hours: 4
- Recreation Option Course

Spring

- Recreation Option Course
- Recreation Option Course
- Recreation Option Course
- Upper Division WRI Elective

Senior Year

Fall

- SPE 321 - Small Group/Team Comm Credit Hours: 3
- Recreation Option Course
- Recreation Option Course
- Humanities Elective Credit: 3
- Social Science Elective Credit Hours: 3

Winter

- ENV 485 - Habitat Management Credit Hours: 3
- Social Science Elective Credit: 3
- Recreation Option Course
- Recreation Option Course

Spring

- ENV 484 - Sustainable Human Ecology Credit Hours: 4
- Humanities Elective Credit: 3
- Recreation Option Course
- Recreation Option Course
- Recreation Option Course

Total for a B.S. in Environmental Science, option in Recreation and Science: 180 Credit Hours

Recreation Option Required Courses

- BIO 337 - Aquatic Ecology Credit Hours: 4
- BIO 377 - Wildlife Ecology and Management Credit Hours: 4
- BIO 417 - Plant Ecology Credit Hours: 4
- BIO 446 - Pathophysiology I Credit Hours: 3
- ENV 460 - Risk Management and Wilderness First Aid Credit Hours: 3
- ENV 466 - Environmental Education Credit Hours: 3
- CHE 315 - Environmental Analytical Chemistry Credit Hours: 4
- PHED 355 - Coaching in Application Credit Hours: 3
- PHED 163 - Wilderness Navigation Credit Hours: 1

Recreation Option Technical Electives

- BIO 255 - Sophomore Research Class Credit Hours: 1
- BIO 355 - Junior Research Class Credit Hours: 1
- BIO 455 - Senior Research Class Credit Hours: 1
- COM 226 - Nonverbal Communication Credit Hours: 3
- COM 237 - Intro to Visual Communication Credit Hours: 3
- COM 248 - Digital Media Production Credit Hours: 3
- ENV 420 - Externship in Env Sci Credit Hours: Varies (1-9)

- GEOG 315 - Climatology & Atmospheric Sci Credit Hours: 4
- BUS 223 - Marketing I Credit Hours: 3

Physical Education Electives

- PHED 145 - Relaxation and Flexibility Credit Hours: 1
- PHED 146 - Yoga Credit Hours: 1
- PHED 151 - Karate Credit Hours: 1

Environmental Sciences, option in Water and Wetland Resources, BS

Degree Requirements

Students must meet the general education requirements, as stated elsewhere in this catalog, and complete the courses listed in the curriculum to obtain a Bachelor of Science in Environmental Sciences. Students are encouraged to develop a track emphasis area based on their own interests.

Students are required to pass each science course with a grade of "C" or better. This requirement is based on the quantitative skills needed in later courses as well as the degree of integration in subject material that is present throughout the program.

The Environmental Sciences Curriculum

Students within the Environmental Sciences program put their knowledge into practice in the best place possible—the great outdoors. This map shows required courses for the degree and recommended terms to take each course (the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability).

Curriculum

Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- BIO 211 - Principles of Biology Credit Hours: 4
- ENV 108 - Mentorship and Team Building Credit Hours: 1
- ENV 111 - Intro to Env Sciences Credit Hours: 4
- GIS 103 - The Digital Earth Credit Hours: 3
- Humanities Elective Credit Hours: 3

Winter

- BIO 212 - Principles of Biology Credit Hours: 4
- GIS 134 - Geographic Information Systems Credit Hours: 3
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

Spring

- BIO 213 - Principles of Biology Credit Hours: 4
- GIS 205 - Mobile and Web GIS Credit Hours: 3
- MATH 112Z - Precalculus II: Trigonometry Credit Hours: 4
- GEOG 105 - Physical Geography Credit Hours: 4

Sophomore Year

Fall

- CHE 221 - General Chemistry I Credit Hours: 5
- COM 111Z - Public Speaking Credit Hours: 4
- ENV 217 - Intro to Natural Resources Management Credit Hours: 4
- Water Option Course

Winter

- CHE 222 - General Chemistry II Credit Hours: 5
- ENV 224 - Scientific Reason & Method Credit Hours: 3
- ENV 226 - Environmental Data Analysis Credit Hours: 3
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4

Spring

- CHE 223 - General Chemistry III Credit Hours: 5
- ENV 226 - Environmental Data Analysis Credit Hours: 3
- ECO 201 - Principles of Microeconomics Credit Hours: 3
  or
- ECO 202 - Principles of Macroeconomics Credit Hours: 3
- MATH 361 - Statistical Methods I Credit Hours: 4
- Water Option Course

Junior Year

Fall

- ENV 108 - Mentorship and Team Building Credit Hours: 1
- ENV 355 - Careers/Professionalism in Env Sci Credit Hours: 3
- MATH 362 - Statistical Methods II Credit Hours: 4
- Social Science Elective Credit: 3
- Water Option Course

Winter

- PHY 201 - General Physics Credit Hours: 4
- ENV 434 - Advanced Data Analysis Credit Hours: 4
- ENV 314 - Environmental Policy and Management Credit Hours: 3

- Water Option Course

Spring

- Water Option Course
- Water Option Course
- Water Option Course
- Upper Division WRI Elective

Senior Year

Fall

- SPE 321 - Small Group/Team Comm Credit Hours: 3
- Water Option Course
- Water Option Course
- Humanities Elective Credit: 3
- Social Science Elective Credit Hours: 3

Winter

- ENV 485 - Habitat Management Credit Hours: 3
- Social Science Elective Credit: 3
- Water Option Course
- Water Option Course

Spring

- ENV 484 - Sustainable Human Ecology Credit Hours: 4
- Humanities Elective Credit: 3
- Water Option Course
- Water Option Course
- Water Option Course

Total for a B.S. in Environmental Science, option in Water and Wetland Resources: 180 Credit Hours

Water Option Required Courses

- BIO 428 - Fisheries Credit Hours: 4
- BIO 337 - Aquatic Ecology Credit Hours: 4
- CHE 465 - Fate/Transport of Pollutants Credit Hours: 4
- CHE 315 - Environmental Analytical Chemistry Credit Hours: 4
- ENV 469 - Treatment Wetlands Credit Hours: 3
- ENV 321 - Water Resources Credit Hours: 4
- ENV 214 - Watershed Sci & Tech Credit Hours: 3

Water Option Technical Electives

Complete 25 credit hours from this list of options

- BIO 255 - Sophomore Research Class Credit Hours: 1
- BIO 355 - Junior Research Class Credit Hours: 1
- BIO 455 - Senior Research Class Credit Hours: 1
- ENV 495 - Research in Env. Sciences Credit Hours: 4
  or
- ENV 420 - Externship in Env Sci Credit Hours: Varies (1-9)
- GEOG 335 - Soils Credit Hours: 4
- GIS 432 - Customizing the GIS Envirn II Credit Hours: 4
- GIS 306 - Geospatial Raster Analysis Credit Hours: 4
- GIS 316 - Geospatial Vector Analysis Credit Hours: 4
- GIS 332 - Python for Geospatial Analysis Credit Hours: 3
- GME 161 - Plane Surveying I Credit Hours: 4
- GME 425 - Remote Sensing Credit Hours: 4
- CE 405 - Sustainability & Infrastruct Credit Hours: 3
- CE 374 - Hydrology Credit Hours: 4

Environmental Sciences, option in Wildlife, Fisheries, and Natural Resources, BS

Degree Requirements

Students must meet the general education requirements, as stated elsewhere in this catalog, and complete the courses listed in the curriculum to obtain a Bachelor of Science in Environmental Sciences. Students are encouraged to develop a track emphasis area based on their own interests.

Students are required to pass each science course with a grade of "C" or better. This requirement is based on the quantitative skills needed in later courses as well as the degree of integration in subject material that is present throughout the program.

The Environmental Sciences Curriculum

Students within the Environmental Sciences program put their knowledge into practice in the best place possible—the great outdoors. Emphasis is placed on active experiential learning. The program offers numerous and diverse opportunities for students to engage in applied research and resource management projects with the support of faculty and professionals through local and regional partnerships.

This map shows required courses for the degree and recommended terms to take each course (the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability).

Curriculum

Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- BIO 211 - Principles of Biology Credit Hours: 4
- ENV 108 - Mentorship and Team Building Credit Hours: 1
- ENV 111 - Intro to Env Sciences Credit Hours: 4

- GIS 103 - The Digital Earth Credit Hours: 3
- Humanities Elective Credit Hours: 3

Winter

- BIO 212 - Principles of Biology Credit Hours: 4
- GIS 134 - Geographic Information Systems Credit Hours: 3
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

Spring

- BIO 213 - Principles of Biology Credit Hours: 4
- GIS 205 - Mobile and Web GIS Credit Hours: 3
- MATH 112Z - Precalculus II: Trigonometry Credit Hours: 4
- GEOG 105 - Physical Geography Credit Hours: 4

Sophomore Year

Fall

- CHE 221 - General Chemistry I Credit Hours: 5
- COM 111Z - Public Speaking Credit Hours: 4
- ENV 217 - Intro to Natural Resources Management Credit Hours: 4
- Wildlife Option Course

Winter

- CHE 222 - General Chemistry II Credit Hours: 5
- ENV 224 - Scientific Reason & Method Credit Hours: 3
- ENV 226 - Environmental Data Analysis Credit Hours: 3
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4

Spring

- CHE 223 - General Chemistry III Credit Hours: 5
- ECO 201 - Principles of Microeconomics Credit Hours: 3
  or
- ECO 202 - Principles of Macroeconomics Credit Hours: 3
- MATH 361 - Statistical Methods I Credit Hours: 4
- Wildlife Option Course

Junior Year

Fall

- ENV 108 - Mentorship and Team Building Credit Hours: 1
- ENV 355 - Careers/Professionalism in Env Sci Credit Hours: 3
- MATH 362 - Statistical Methods II Credit Hours: 4
- Social Science Elective Credit Hours: 3
- Wildlife Option Course

Winter

- PHY 201 - General Physics Credit Hours: 4
- ENV 314 - Environmental Policy and Management Credit Hours: 3
- ENV 434 - Advanced Data Analysis Credit Hours: 4
- Wildlife Option Course

Spring

- Wildlife Option Course
- Wildlife Option Course
- Wildlife Option Course
- Upper Division WRI Elective

Senior Year

Fall

- SPE 321 - Small Group/Team Comm Credit Hours: 3
- Wildlife Option Course
- Wildlife Option Course
- Humanities Elective Credit: 3
- Social Science Elective Credit Hours: 3

Winter

- ENV 485 - Habitat Management Credit Hours: 3
- Social Science Elective Credit Hours: 3
- Wildlife Option Course
- Wildlife Option Course

Spring

- ENV 484 - Sustainable Human Ecology Credit Hours: 4
- Humanities Elective Credit Hours: 3
- Wildlife Option Course
- Wildlife Option Course
- Wildlife Option Course

Total for a B.S. in Environmental Science, option in Wildlife, Fisheries, and Natural Resources: 180 Credit Hours

Wildlife Option Required Courses

- BIO 426 - Evolutionary Biology Credit Hours: 3
- BIO 446 - Pathophysiology I Credit Hours: 3
- BIO 417 - Plant Ecology Credit Hours: 4
- BIO 377 - Wildlife Ecology and Management Credit Hours: 4
- BIO 337 - Aquatic Ecology Credit Hours: 4
- CHE 315 - Environmental Analytical Chemistry Credit Hours: 4
- ENV 375 - Forest Ecology & Management Credit Hours: 4
- ENV 465 - Ecological Resto. & Monitoring Credit Hours: 4

Wildlife Option Technical Electives

- BIO 428 - Fisheries Credit Hours: 4
- BIO 455 - Senior Research Class Credit Hours: 1
- BIO 355 - Junior Research Class Credit Hours: 1
- BIO 386 - Ornithology Credit Hours: 4
- BIO 255 - Sophomore Research Class Credit Hours: 1
- BIO 313 - Botany and Plant Taxonomy Credit Hours: 4
- ENV 365 - Adv Field Methods in Env Sci Credit Hours: 3
- GEOG 315 - Climatology & Atmospheric Sci Credit Hours: 4
- GIS 426 - Geospatial Vector Analysis II Credit Hours: 4
- GIS 432 - Customizing the GIS Envirn II Credit Hours: 4
- GIS 446 - GIS Database Development Credit Hours: 2
- GIS 306 - Geospatial Raster Analysis Credit Hours: 4
- GIS 316 - Geospatial Vector Analysis Credit Hours: 4
- GIS 332 - Python for Geospatial Analysis Credit Hours: 3
- GME 425 - Remote Sensing Credit Hours: 4

Natural Resources, MS

Choose any 8 courses below:

First Year

First Year

Fall

Fall

- BIO 501 - Introduction to Graduate Studies Credit Hours: 3
- BIO 511 - Foundations in Conservation Credit Hours: 3
- Elective Credit Hours: 3

Winter

Winter

- BIO 595 - Graduate Research/Thesis Credit Hours: 1-2
- BIO 510 - Current Issues in Biomedical Sciences Credit Hours: 1
- Elective Credit Hours: 3

Spring

Spring

- BIO 595 - Graduate Research/Thesis Credit Hours: 1-2
- BIO 510 - Current Issues in Biomedical Sciences Credit Hours: 1
- Elective Credit Hours: 3

Second Year

Second Year

Fall

Fall

- BIO 595 - Graduate Research/Thesis Credit Hours: 1-2
- BIO 510 - Current Issues in Biomedical Sciences Credit Hours: 1
- Elective Credit Hours: 3

Winter

Winter

- BIO 595 - Graduate Research/Thesis Credit Hours: 1-2
- Elective Credit Hours: 6

Spring

Spring

- BIO 595 - Graduate Research/Thesis Credit Hours: 1-2
- Elective Credit Hours: 3

Elective Credits:

Choose any 8 elective courses below:

- BIO 597 - Internship/shadowing Credit Hours: 1-4
- BIO 546 - Pathophysiology I Credit Hours: 3
- BIO 547 - Pathophysiology II Credit Hours: 3
- BIO 552 - Developmental Biology Credit Hours: 4
- BIO 561 - Human Cadaver Dissection Credit Hours: 1
- BIO 562 - Human Cadaver Dissection Credit Hours: 1
- BIO 567 - Plant Ecology Credit Hours: 3
- BIO 585 - Ecoregional Studies Credit Hours: 3

- BIO 596 - Biomedical capstone Credit Hours: 3
- BIO 527 - Special Topics in Neuroscience Credit Hours: 1
- BIO 534 - Advanced Data Analysis Credit Hours: 4
- BIO 535 - Exercise Physiology Credit Hours: 3
- BIO 536 - Immunology Credit Hours: 4
- BIO 537 - Advanced Data Analysis II Credit Hours: 4
- BIO 538 - Conservation biology Credit Hours: 3
- BIO 541 - Genetic Engineering & Gene Therapy Credit Hours: 3
- BIO 542 - Biological Physics Credit Hours: 3
- BIO 543 - Cell Biology Credit Hours: 3
- BIO 545 - Comparative Virology Credit Hours: 3
- BIO 512 - Current Issues in Natural Resources Credit Hours: 1
- BIO 517 - Plant Ecology Credit Hours: 4
- BIO 522 - Introduction to Neuroscience Credit Hours: 3
- BIO 526 - Evolutionary Biology Credit Hours: 3
- CHE 550 - Biochemistry I Credit Hours: 4
- CHE 551 - Biochemistry II Credit Hours: 4
- CHE 552 - Biochemistry III Credit Hours: 4
- CHE 565 - Fate and Transport of Pollutants Credit Hours: 4
- ENV 589 - Aquatic Inorganic Chemistry Credit Hours: 4
- ENV 522 - Green Chemistry Credit Hours: 3
- ENV 525 - Fire Ecology Credit Hours: 3
- ENV 560 - Risk Management and Wilderness First Aid Credit Hours: 3
- ENV 565 - Ecological Resto. & Monitoring Credit Hours: 4
- ENV 566 - Environmental Education Credit Hours: 3
- ENV 569 - Treatment Wetlands Credit Hours: 3
- ENV 577 - Entomology Credit Hours: 4
- ENV 579 - Ichthyology Credit Hours: 4
- ENV 584 - Sustainable Human Ecology Credit Hours: 3

Sustainability Minor

The sustainability minor is available to all students in all majors and is recommended for any student who wants to develop sustainability literacy and gain credit for a breadth of study encompassing the three primary cores of sustainability education: natural sciences, humanities and social sciences, and engineering and technology. The minor in sustainability acknowledges the completion of 18 credits as outlined below. Introductory and capstone courses are included and at least one course must be taken in each of the three core areas. At least 12 of the 18 credits must be upper division. Advising for the minor is performed by a primary advisor with support from secondary advisors representing each of the three core areas.

Requirements of Minor

Elective Courses

(At least 11 credits required with at least one course taken from each area: natural sciences, humanities and social sciences, and engineering and technology):

Natural Sciences

- ENV 111 - Intro to Env Sciences Credit Hours: 4
- BIO 337 - Aquatic Ecology Credit Hours: 4
- CHE 260 - Electrochemistry for RE Applic Credit Hours: 4
- CHE 315 - Environmental Analytical Chemistry Credit Hours: 4
- CHE 465 - Fate/Transport of Pollutants Credit Hours: 4
- ENV 265 - Field Methods Environ Science Credit Hours: 3
- ENV 314 - Environmental Policy and Management Credit Hours: 3
- ENV 336 - Environmental Hydrology Credit Hours: 4
- ENV 365 - Adv Field Methods in Env Sci Credit Hours: 3
- ENV 427 - Greenhouse Gas Accounting/Footprints Credit Hours: 3
- ENV 469 - Treatment Wetlands Credit Hours: 3
- GEOG 105 - Physical Geography Credit Hours: 4
- Other courses as approved by the advisory team

Humanities and Social Sciences

- ANTH 452 - Globalization Credit Hours: 3
- COM 205 - Intercultural Comm Credit Hours: 3
- COM 365 - Electronic Comm & Society Credit Hours: 3
- GEOG 106 - Cultural Geography I Credit Hours: 3
- GEOG 107 - Cultural Geography II Credit Hours: 3
- GEOG 108 - Cultural Geography III Credit Hours: 3
- HIST 356 - A History of Energy Credit Hours: 3
- HUM 125 - Intro Tech, Soc, Value Credit Hours: 3
- PHIL 331 - Ethics in the Professions Credit Hours: 3
- PHIL 342 - Business Ethics Credit Hours: 3
- PSY 334 - Behavior Modification I Credit Hours: 4
- Other courses as approved by advisory team

Engineering and Technology

- CE 405 - Sustainability & Infrastruct Credit Hours: 3
- CE 481 - Environmental Engineering I Credit Hours: 3
- GIS 134 - Geographic Information Systems Credit Hours: 3
- GIS 103 - The Digital Earth Credit Hours: 3
- REE 201 - Intro to Renewable Energy Credit Hours: 3
- REE 253 - Electromech Energy Conversion Credit Hours: 3
- REE 331 - Fuel Cells Credit Hours: 3

Nursing (OHSU)

Susan Bakewell-Sachs, *School of Nursing Dean and Vice President for Nursing Affairs for OHSU*

Tamara Rose, *Campus Associate Dean*

Instructors: S. Bailey, S. Brandsness, L. Callahan, L. Gimple, M. Gran-Moravec, A. Kohler-Edwards, A. Lowe, C. Usher

This program is offered at Oregon Institute of Technology by the Oregon Health & Science University School of Nursing, in cooperation with Oregon Tech.

Degree Offered

- Bachelor of Science with a major in Nursing

The OHSU School of Nursing is a health professions leader in academic productivity and innovative educational programming. It is recognized as a model in educating students for careers in nursing at both the graduate and undergraduate levels. In July 1993, the Nursing Program at Oregon Tech became a member of the Statewide Integrated Nursing Education System for Oregon. Campuses are located in: Ashland, at Southern Oregon University; Klamath Falls, at Oregon Institute of Technology; La Grande, at Eastern Oregon University; Monmouth, at Western Oregon University; and Portland, at Oregon Health & Science University. In addition to a basic baccalaureate degree in nursing, the statewide program offers opportunities for RNs seeking B.S. degrees.

Non-nursing coursework may be taken at Oregon Institute of Technology, a community college, or other accredited institutions of higher learning. Pre-nursing majors must apply and be accepted by the OHSU School of Nursing in order to progress into the nursing major. OHSU uses a holistic admissions process which includes academic performance, application essays, and interviews if invited.

The OHSU Baccalaureate in Nursing program provides the essential foundation for professional nursing licensure and practice. Oregon Tech, Pre-nursing students, complete one or two years of required prerequisites and non-nursing degree requirements (depending on transferability of previous college coursework successfully completed). Once admitted to the OHSU undergraduate nursing program on the OIT campus, students complete three years of professional nursing courses. Selection into the professional program is competitive.

Nursing courses build upon and complement the liberal arts and science foundation required for professional practice. The graduate of the B.S. program is eligible to complete the registered nursing licensure examination and is prepared to assume responsibility for providing professional nursing care.

Options for Registered Nurses to Obtain a B.S.

There is a process in place for assisting RNs to complete coursework to obtain a B.S. This is an online degree and is not offered on the Oregon Tech campus. Please contact the School of Nursing for information at (866) 223-1811.

Approval and Accreditation

OHSU School of Nursing is accredited by the Northwest Commission on Colleges and Universities (NWCCU) and the Commission on Collegiate Nursing Education (CCNE).

Admission

To be considered for admission to the School of Nursing, a student must submit an online application and official transcripts (www.ohsu.edu/son). The annual application process begins by October 1 and closes February 15. The minimum criteria to apply are:

- have 28 credits of prerequisite courses completed by the end of fall term
- have completed Human Anatomy and Physiology I
- be at the Intermediate Algebra math level
- have a minimum 3.0 GPA for your prerequisite courses

Transfer Credits

Transfer credits are accepted subject to review by OHSU Registrar's office for comparability and number of credits which may be granted.

Requirements for Major

Students with a baccalaureate degree in another discipline should see a nursing advisor for requirements with the nursing major.

Nursing, BS

Curriculum

Courses and terms during which they may be taken.

Pre-Nursing

Pre-Nursing Year 1

Fall

- BIO 231 - Human Anatomy/Physiology I Credit Hours: 4
- MATH 100 - Intermediate Algebra Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4
- BIO 135 - Prep for Human A&P Credit Hours: 1

Winter

- BIO 234 - Microbiology Credit Hours: 4
- BIO 232 - Human Anatomy/Physiology II Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

Spring

- BIO 205 - Nutrition Credit Hours: 3
- BIO 233 - Human Anatomy/Physiology III Credit Hours: 4
- PSY 201Z - Introduction to Psychology I Credit Hours: 4
- WRI 122Z - Composition II Credit Hours: 4

Pre-Nursing Year 2

Fall

- PSY 311 - Human Growth & Dev I Credit Hours: 3
- BIO 235 - Human Genetics Credit Hours: 3
- CHE 101 - Intro to General Chemistry Credit Hours: 3
- CHE 104 - Intro to General Chemistry Lab Credit Hours: 1

- Elective Credit Hours: 3

Winter

- PSY 312 - Human Growth & Dev II Credit Hours: 3
- STAT 243Z - Elementary Statistics I Credit Hours: 4
- Elective Credit Hours: 3
- Humanities Elective Credit: 3

Spring

- Humanities Elective Credit: 3
- Elective Credit Hourse: 3
- Upper-Division Elective Credit Hours: 6

Professional Courses

Nursing Program - Year 1

Fall

- NRS 210 - Foundations of Nursing - Health Promotion Credit Hours: 9
- NRS 232 – Pathophysiology I Credit Hours: 3

Winter

- NRS 211 - Foundations of Nursing in Chronic Illness I Credit Hours: 6
- NRS 230 - Pharmacology I Credit Hours: 3
- NRS 233 - Pathophysiology III Credit Hours: 3

Spring

- NRS 212 Foundations of Nursing in Acute Care I Credit Hours: 6
- NRS 231 Pharmacology II Credit Hours: 3

Nursing Program - Year 2

Fall

- NRS 322 - Nursing in Acute Care II and End-of-Life Credit Hours: 9
-

  Elective Credit Hours: Varies

Winter

- NRS 321 - Nursing in Chronic Illness II and End-of-Life Credit Hours: 9

- Elective Credit Hours: Varies

Spring

- NRS 410 – Population Based Chronic Illness & Health Promotion Credit Hours 9
- NRS 411 – Epidemiology Credit Hours: 3

Nursing Program - Year 3

Fall

- NRS 412 - Leadership, Outcome Management in Nursing Credit Hours: 10
- NRS 413 – Introduction or Research for Nurses Credit Hours: 2
- Elective Credit Hours: varies

Winter

- NRS 424 - Integrative Practicum I Credit Hours: 9
- Elective Credit Hours: varies

Spring

- NRS 425 - Integrative Practicum II Credit Hours: 9
- Elective Credit Hours: varies

Engineering, Technology and Management

Civil Engineering

Roger Lindgren, *Department Chair*

Professors: R. Lindgren, C. Riley, S. St.Clair

Associate Professor: A Greer

Assistant Professors: J. Wang, R. Yocum

Civil engineers design infrastructure—transportation networks, bridges, buildings, dams, communities, and water and waste management systems—for the enhancement of human welfare and protection of our environment. Oregon Tech's freshman-to-master's Civil Engineering program equips students to meet industry and societal needs identified by the American Society of Civil Engineers (ASCE).

Degrees Offered

- Bachelor of Science in Civil Engineering (BSCE)
- Master of Science in Civil Engineering (MSCE)

Career Opportunities

Upon completing the core curriculum, civil engineering students have a solid foundation in structural, transportation, water resources, and geotechnical engineering. Upper division students can target specific disciplinary areas with specialized technical electives. Graduates have career opportunities with consulting firms, government agencies, heavy construction contractors and industry. They are also very successful in passing the Fundamentals of Engineering exam, paving the way for professional licensure as a civil engineer.

Geotechnical engineering involves the design and construction of projects built on, in, or with earth materials. These projects include, but are not limited to, foundations for structures, earthen embankments, dams, landfills, and underground structures. In addition, geotechnical engineers predict the performance and behavior of the earthen materials due to changes imposed by other engineered systems.

Structural engineering involves the planning, analysis and design of buildings, bridges and other structures using the principal construction materials of wood, steel, concrete and masonry. Graduates are familiar with current codes and standards, and methods of analysis and design.

Transportation engineering is concerned with the planning, design, construction, operation, safety, performance, and evaluation of transportation systems and facilities, such as urban streets, highways, bicycle and pedestrian facilities, and public transit.

Water resources engineering addresses the spectrum of water issues including supply, transport, use, and discharge, and is at the junction of efforts to provide sustainable human and natural environments, in compliance with regulatory mandates. Graduates have opportunities in planning, design, and operation of hydraulic and water resource projects, floodplain management, or resource management issues.

Civil engineering graduates may consider a dual degree in environmental sciences to expand career opportunities with a broad spectrum of government agencies, consulting firms, and industry.

A minor in geomatics allows graduates to obtain professional licensure as both a land surveyor and civil engineer.

Mission Statement

The mission of the Oregon Tech Civil Engineering program is to prepare students for professional practice. To be prepared to practice as professionals, engineers must be able to act responsibly and ethically, understand their limits and the limits of the tools they use, communicate effectively, work well in teams, and, amid the changing landscape of the field of civil engineering, be able to pursue graduate-level education.

Objectives

The alumni from the BSCE program at Oregon Tech should be able to:

- Practice in civil engineering or a related field.
- Pursue advanced or continuing education in civil engineering or a related field.
- Act as responsible, effective and ethical citizens.
- Understand and effectively communicate the realistic constraints of civil engineering.
- Perform effectively in a multi-disciplinary environment.

Students enjoy a close relationship with full-time faculty with advanced engineering degrees, many of whom are also licensed professionals with many years of practical experience. Course offerings promote education in the application of theory relevant to our civil engineering technical areas, engineering design, and principles of sustainable development. These concepts are emphasized and integrated throughout the curriculum in a sequential manner.

Early in the curriculum, elements of the creative design process are introduced as students complete first-year design projects. To ensure graduates become responsible, effective citizens and begin building a foundation for lifelong learning, students are required to satisfy Oregon Tech general education requirements in communication, humanities, social sciences, and science/mathematics.

While most first-year and sophomore courses are intended to provide a solid background in mathematics, communications, and basic sciences, lower-division engineering mechanics and civil engineering courses engage students with more foundational topics in engineering and professional practice.

In their third year of study, students develop a broad civil engineering knowledge base. Third-year courses include core topics in geotechnical, structural, transportation, and water resources engineering.

In the fourth year, students are required to complete an intensive, two-term, engineering design project. This effort is focused on a professional-quality civil engineering design with real-world context and includes essential elements of technical communications and group dynamics. The design project also involves realistic constraints including cost and sustainability considerations, socioeconomic concerns, aesthetic choices and ethical deliberations. Fourth-year students also take technical electives and prepare for the FE examination as a step toward licensure as professional engineers. In this year, BS-seeking students complete their undergraduate degree requirements while concurrent (BS/MS) degree-seeking students begin their selected program of graduate-level coursework, which may include a graduate project or thesis.

Finally, in the optional fifth year, concurrent students complete BS and MS coursework and their choice of additional coursework, an individual graduate project, or thesis.

Program Learning Outcomes

Upon graduating from the BSCE program, students will have an ability to:

1. Identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

2. Apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.

3. Communicate effectively with a range of audiences.

4. Recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

5. Function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

6. Develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

7. Acquire and apply new knowledge as needed, using appropriate learning strategies.

Student Preparation

Students interested in civil engineering should emphasize mathematics and science in high school. Two years of algebra and one year each of geometry, trigonometry, chemistry and physics are preferred. Additional courses in mathematics and computer-aided drafting are desirable. .

Accreditation

The Civil Engineering Program is accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

Graduation Requirements

All courses listed in the curriculum for the current catalog year must be completed to be eligible for graduation, unless a student has already completed the requirements for a category that has changed. When changes are made to the curriculum, students who entered the program under a previous catalog will work with their academic advisors to transition to meet the requirements of the current catalog. A final grade of "C" or better must be earned in all math and science courses and those with CE, ENGR, GIS, and GME prefixes as well as all listed prerequisites for these courses.

The Bachelor of Science degree in Civil Engineering requires a minimum of 180 credits and students must maintain a 2.0 GPA to be eligible for graduation.

For the concurrent bachelor's and master's degrees in Civil Engineering, a minimum of 225 credits must be completed. Students must earn a 3.0 GPA by the end of the third year for progression to the fourth and fifth years of study.

The Master of Science in Civil Engineering requires completing 45 credits of approved graduate work. Students must maintain a 3.0 graduate-level GPA with a final grade of "C" or better in all graduate courses.

Civil Engineering, BS

Curriculum

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- CHE 221 - General Chemistry I Credit Hours: 5
- ENGR 101 - Intro to Engineering I Credit Hours: 2
- COM 111Z - Public Speaking Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

Winter

- CHE 222 - General Chemistry II Credit Hours: 5
- ENGR 102 - Intro to Engineering II Credit Hours: 2
- WRI 122Z - Composition II Credit Hours: 4
  or

- WRI 227Z - Technical Writing Credit Hours: 4
- Humanities (Literature) Elective Credit Hours: 3

Spring

- CE 203 - Engineering Graphics Credit Hours: 3
- BIO/ENV/GEOL Elective Credit Hours: 3
- MATH 251 - Differential Calculus Credit Hours: 4
- Humanities Elective Credit Hours: 3 [a]
- Social Science Elective Credit Hours: 3

Sophomore Year

Fall

- CE 212 - Civil Engineering Materials Credit Hours: 4
- GME 161 - Plane Surveying I Credit Hours: 4
- MATH 252 - Integral Calculus Credit Hours: 4
- PHY 221 - General Physics w/Calculus Credit Hours: 4

Winter

- ENGR 211 - Engineering Mechanics: Statics Credit Hours: 4
- GIS 134 - Geographic Information Systems Credit Hours: 3
- MATH 254 - Vector Calculus I Credit Hours: 4
- PHY 222 - General Physics w/Calculus Credit Hours: 4
  or
- PHY 223 - General Physics w/Calculus Credit Hours: 4

Spring

- CE 205 - Computational Methods Credit Hours: 2
- ENGR 213 - Engr Mech: Strength of Mat Credit Hours: 4
- MATH 321 - Appl Diff Equation I Credit Hours: 4
- Humanities Elective Credit Hours: 3

Junior Year

Fall

- CE 311 - Intro to Geotechnical Engr Credit Hours: 5
- CE 331 - Structural Analysis Credit Hours: 4
- ENGR 318 - Engineering Mech: Fluids Credit Hours: 4
- MATH 361 - Statistical Methods I Credit Hours: 4

Winter

- CE 308 - Princ of Professional Practice Credit Hours: 4

- CE 341 - Elementary Structural Design Credit Hours: 5
- CE 351 - Intro to Transportation Engr Credit Hours: 4
- CE 371 - Closed Conduit Design Credit Hours: 4

Spring

- CE 312 - Earth Pressures & Foundations Credit Hours: 3
- CE 354 - Traffic Engineering Credit Hours: 3
- CE 374 - Hydrology Credit Hours: 4

- CE 442 - Adv Reinforced Concrete Design Credit Hours: 4
  or
- CE 444 - Intermediate Steel Design Credit Hours: 4

Senior Year

Senior Year

- ANTH 452 - Globalization Credit Hours: 3
- CE 401/COM 401 - Civil Engineering Project I Credit Hours: 5
- CE 402 - Civil Engineering Project II Credit Hours: 4
- CE 405 - Sustainability & Infrastruct Credit Hours: 3
- Technical Electives Credit Hours: 15 [b]
- Math/Science Elective Credit Hours: 4
- Social Science Elective Credit Hours: 6
- SPE/WRI/COM Elective Credit Hours: 3

Total for a B.S. in Civil Engineering: 180 Credit Hours

[a] No more than 3 credits of Humanities courses may be skill- or performance based.

[b] Technical electives are generally 400- and 500-level CE courses.

Civil Engineering, BS/MS

Curriculum

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- CHE 221 - General Chemistry I Credit Hours: 5
- ENGR 101 - Intro to Engineering I Credit Hours: 2
- COM 111Z - Public Speaking Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

Winter

- CHE 222 - General Chemistry II Credit Hours: 5
- ENGR 102 - Intro to Engineering II Credit Hours: 2
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4
- Humanities (Literature) Elective Credit Hours: 3

Spring

- CE 203 - Engineering Graphics Credit Hours: 3
- BIO/ENV/GEOL Elective Credit Hours: 3
- MATH 251 - Differential Calculus Credit Hours: 4
- Humanities Elective Credit Hours: 3 [a]
- Social Science Elective Credit Hours: 3

Sophomore Year

Fall

- CE 212 - Civil Engineering Materials Credit Hours: 4
- GME 161 - Plane Surveying I Credit Hours: 4
- MATH 252 - Integral Calculus Credit Hours: 4
- PHY 221 - General Physics w/Calculus Credit Hours: 4

Winter

- ENGR 211 - Engineering Mechanics: Statics Credit Hours: 4
- GIS 134 - Geographic Information Systems Credit Hours: 3
- MATH 254 - Vector Calculus I Credit Hours: 4
- PHY 222 - General Physics w/Calculus Credit Hours: 4
  or
- PHY 223 - General Physics w/Calculus Credit Hours: 4

Spring

- CE 205 - Computational Methods Credit Hours: 2
- ENGR 213 - Engr Mech: Strength of Mat Credit Hours: 4
- MATH 321 - Appl Diff Equation I Credit Hours: 4
- Humanities Elective Credit Hours: 3

Junior Year

Fall

- CE 311 - Intro to Geotechnical Engr Credit Hours: 5
- CE 331 - Structural Analysis Credit Hours: 4
- ENGR 318 - Engineering Mech: Fluids Credit Hours: 4
- MATH 361 - Statistical Methods I Credit Hours: 4

Winter

- CE 308 - Princ of Professional Practice Credit Hours: 4
- CE 341 - Elementary Structural Design Credit Hours: 5
- CE 351 - Intro to Transportation Engr Credit Hours: 4
- CE 371 - Closed Conduit Design Credit Hours: 4

Spring

- CE 312 - Earth Pressures & Foundations Credit Hours: 3
- CE 354 - Traffic Engineering Credit Hours: 3
- CE 374 - Hydrology Credit Hours: 4

- CE 442 - Adv Reinforced Concrete Design Credit Hours: 4
  or
- CE 444 - Intermediate Steel Design Credit Hours: 4

Fourth Year

- CE 401 - Civil Engineering Project I Credit Hours: 2
- COM 401 - Civil Engineering Project I Credit Hours: 3
- CE 402 - Civil Engineering Project II Credit Hours: 4
- CE 405 - Sustainability & Infrastruct Credit Hours: 3
- CE 501 - Civil Engr Graduate Seminar Credit Hours: 1
- WRI 521 - Writing at the Grad Level Credit Hours: 3
- Technical Electives Credit Hours: 3 [b]
- Graduate Technical Electives Credit Hours: 12 [c]
- MATH 4XX - Math/Science Elective Credit Hours: 4
- Social Science Elective Credit Hours: 3
- Social Science Elective Credit Hours: 3
- SPE/WRI/COM Elective Credit Hours: 3

Fifth Year

- ANTH 452 - Globalization Credit Hours: 3

- CE 590 - Civil Engineering Grad Project Credit Hours: 9
  or
- CE 595 - Graduate Thesis Credit Hours: Varies (1-6)

- Technical Electives Credit Hours: 12[b]

- Graduate Technical Electives Credit Hours: varies[c]

Total Required for BS/MSCE: 225 Credit Hours

[a] No more than 3 credits of Humanities courses may be skill- or performance based.

[b] Technical electives are generally 400- and 500-level CE courses.

[c] Graduate technical electives are generally 500-level CE courses. At the discretion of the graduate advisor, up to 9 credits may be selected from 400-level CE and non-CE courses. Approved non-CE 500-level courses may be chosen as electives.

Civil Engineering, MS

Curriculum

For students who have previously completed a BSCE degree. [e]

- ANTH 452 - Globalization Credit Hours: 3
- CE 501 - Civil Engr Graduate Seminar Credit Hours: 1
- CE 590/CE 595 - Graduate Project/Thesis Credit Hours: 0-12
- MATH 4XX Credit Hours: 4
- WRI 521 - Writing at the Grad Level Credit Hours: 3
- Graduate Technical Electives Credit Hours: varies [f]

Total for a M.S. in Civil Engineering: 45 Credit Hours

[e] Students with a BS degree in a closely-related field of study may be considered. These students will generally be required to complete additional course work.

[f] Graduate technical electives are generally 500-level CE courses. At the discretion of the graduate advisor, up to 9 credits may be selected from 400-level CE and non-CE courses. Approved non-CE 500-level courses may be chosen as electives.

Civil Engineering/Environmental Sciences, BS

Curriculum

Civil Engineering students have the opportunity to earn dual degrees in Civil Engineering and Environmental Sciences. **Students complete all 180 credits required by the BS Civil Engineering.** The additional degree requires 43 credits in Environmental Sciences courses, which can be taken concurrent to Civil Engineering courses or as an add-on year. The dual degree in Environmental Sciences places engineering projects in the context of environmental impacts and environmental regulations, and expands the range of job opportunities for Oregon Tech Civil Engineering graduates. The purpose of the concurrent programs is to challenge motivated students to become even better prepared for the engineering and environmental job markets. To obtain both degrees, students must complete the following listed courses along with the courses required for the Bachelor of Science in Civil Engineering.

- BIO 211 - Principles of Biology Credit Hours: 4
- BIO 212 - Principles of Biology Credit Hours: 4
- CHE 223 - General Chemistry III Credit Hours: 5
  Ecology Elective, Credit Hours: 4[b]

- ENV 108 - Mentorship and Team Building Credit Hours: 1
- ENV 111 - Intro to Env Sciences Credit Hours: 4
- ENV 217 - Intro to Natural Resources Management Credit Hours: 4
- ENV 314 - Environmental Policy and Management Credit Hours: 3
- ENV 434 - Advanced Data Analysis Credit Hours: 4
- ENV 484 - Sustainable Human Ecology Credit Hours: 4
  Technical Elective Credit Hours: 7[c]

Total Needed: 43 Credit Hours

[a] CHE 223 should be taken as Civil Engineering Math/Science electives
[b] Select one from Ecology Elective list

- BIO 337 - Aquatic Ecology, Credit Hours: 4
- BIO 357 - Plant Ecology, Credit Hours: 4
- BIO 377 - Wildlife Ecology, Credit Hours: 4
- BIO 386 - Ornithology, Credit Hours: 4
- ENV 375 - Forest Ecology & Management, Credit Hours: 4
- ENV 465 - Ecological Resto. & Monitoring, Credit Hours: 4

[c] Select from Technical Elective list

- BIO 107 BIO 207 BIO 307 BIO 407
- BIO 313 - Botany, Credit Hours: 4
- BIO 354 - Enviromental Health, Credit Hours: 3
- BIO 366 - Zoology, Credit Hours: 4
- BIO 417 - Plant Ecology, Credit Hours: 4
- BIO 377 - Wildlife Ecology, Credit Hours: 4
- BIO 386 - Ornithology, Credit Hours: 4
- BIO 426 - Evolutionary Biology, Credit Hours: 3
- BIO 446 - Conservation Biology, Credit Hours: 3
- CHE 315 - Analytical Enviromental Chem, Credit Hours: 3
- CHE 465 - Fate and Transport of Pollutants, Credit Hours: 4
- ENV 107 ENV 207 ENV 307 ENV 407
- ENV 375 - Forest Ecology & Management, Credit Hours: 4
- ENV 434 - Advanced Data Analysis, Credit Hours: 4
- ENV 465 - Ecological Resto. & Monitoring, Credit Hours: 4
- ENV 485 - Ecoregional Management, Credit Hours: 3
- ENV 495 - Research in Env. Sciences, Credit Hours: 1-4

Computer Systems Engineering Technology Department

Stefan Andrei, *Department Chair*

Professors: S. Andrei, T. Breedlove, C. Caldwell, D. Lynn

Associate Professors: P. Howard, T. Scevers

Assistant Professors: C. Heiner, G. Drouant, G. Jang, F. Karakaya, P. Nguyen

Instructors: M. Arora, D. Nelson, I. Singh

Degrees Offered

- Bachelor of Science in Computer Engineering Technology
- Bachelor of Science in Software Engineering Technology
- Bachelor of Science in Embedded Systems Engineering Technology

Common First-Year Curriculum

The Bachelor of Science in Computer Engineering Technology, Bachelor of Science in Software Engineering Technology, Bachelor of Science in Embedded Systems Engineering Technology all share a common first-year curriculum.

Curriculum

Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- CST 116 - C++ Programming I Credit Hours: 4
- CST 162 - Digital Logic I Credit Hours: 4
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

Winter

- CST 126 - C++ Programming II Credit Hours: 4
- CST 130 - Computer Organization Credit Hours: 3
- MATH 112Z - Precalculus II: Trigonometry Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4

Spring

- CST 120 - Embedded C Credit Hours: 4
- CST 131 - Computer Architecture Credit Hours: 3
- CST 136 - OOP with C++ Credit Hours: 4

- MATH 251 - Differential Calculus Credit Hours: 4

Required Student Equipment

Successful completion of these degrees requires intensive, hands-on use of computers. Therefore, all students are required to own their computer with a laptop highly recommended. To ensure compatibility with campus-wide computers and networks, students should consult a department faculty member for a specification sheet. The departmental requirements are generally higher than the campus-wide specifications. Financial aid may be available to help defray the cost of this equipment. Please consult the Financial Aid Office at Oregon Tech.

Note: The Portland-Metro campus is a laptop-required campus. Please consult with the departmental Lab Manager for specific requirements.

Accreditation

The Bachelor of Science in Computer Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, https://www.abet.org

The Bachelor of Science in Software Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, https://www.abet.org

The Bachelor of Science in Embedded Systems Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, https://www.abet.org

ABET is a specialized accrediting board recognized by the Council for Higher Education and/or the Secretary of the U.S. Department of Education.

High School Preparation

Coursework in computer science, mathematics, and physical science will aid students in their progress in this program, however except for a minimum background in mathematics, these courses are not required.

Computer Engineering Technology

Degree Offered

- Bachelor of Science in Computer Engineering Technology

Students who complete the curriculum requirements in Computer Engineering Technology will be knowledgeable in the theory and applications of both computer hardware and software.

Career Opportunities

Work in the field of computer engineering technology includes: application specific integrated circuit development, firmware development, embedded systems design, software development, testing and applications of technology.

Computer Engineering Technology graduates will be involved in development of hardware, software and embedded applications that adapt digital logic and computer systems to solve problems in a wide range of industries from industrial manufacturing to consumer electronics. In addition, they may be involved in product testing and qualification or in application engineering, customer support, sales and public relations.

The curriculum provides the depth and breadth of technical capability necessary for an engineer. The graduate is qualified to assume a responsible position in business or industry. Graduates may be responsible for the development, use and the maintenance of computing systems, and for the supervision of personnel.

New careers are constantly evolving in both the hardware and software branches of this field. A diversified study allows the graduate to quickly adapt to changing market conditions.

Mission

The mission of the Computer Engineering Technology (CET) Degree program in the Computer Systems Engineering Technology (CSET) Department at Oregon Institute of Technology is to provide an excellent education incorporating industry-relevant, applied laboratory-based design and analysis to our students. The program is to serve a constituency consisting of its graduates, employers in the high-technology industry and the members of our IAB. Major components of the CET program's mission in the CSET department are to:

- educate computer engineering technology students to meet current and future industrial challenges;
- promote a sense of scholarship, leadership and professional service among our graduates;
- enable students to create, develop, and disseminate knowledge for the applied engineering environment;
- expose students to a cross-disciplinary educational program;
- provide high tech industry employers with graduates in the computer engineering technology profession

Program Learning Outcomes

1. an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline;

2. an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;

3. an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;

4. an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes; and

5. an ability to function effectively as a member as well as a leader on technical teams.

Embedded Systems Engineering Technology

Degree Offered

- Bachelor of Science in Embedded Systems Engineering Technology

Career Opportunities

The Department of Computer Systems Engineering Technology offers a Bachelor of Science degree in Embedded Systems Engineering Technology (ESET) designed to build and enhance student's knowledge and skills in this high demand field. Embedded systems play an important role in society. They are the products that contain computing capabilities which are found throughout a wide spectrum of applications. Examples of embedded systems can be found in areas ranging from the entertainment industry to office systems; health care to telecommunications. Embedded systems encompass such diverse products as interactive multimedia, printers, medical equipment, avionics equipment,

kitchen appliances, mobile phones, and automotive engine management units. Engineering and technological challenges abound in the design and development of such innovative products due to the high level integration of hardware and software. As they become more complex and time to market shrinks there is increasing need for skills and creativity on the part of the Embedded System Engineering Technology graduate.

Mission

The mission of the Embedded Systems Engineering Technology (ESET) bachelor's degree program within the Computer Systems Engineering Technology (CSET) Department at Oregon Institute of Technology is to prepare our students for productive careers in industry and government by providing an excellent education incorporating industry relevant, applied laboratory-based instruction in both the theory and application of embedded systems engineering technology. Our focus is educating students to meet the growing workforce demand in Oregon and elsewhere for graduates prepared in both hardware and software aspects of embedded systems. Major components of the ESET program's mission in the CSET Department are:

- to educate a new generation of ESET students to meet current and future industrial challenges and emerging embedded systems engineering technology trends
- to promote a sense of scholarship, leadership, and professional service among our graduates
- to enable our students to create, develop, apply, and disseminate knowledge within the embedded systems development environment
- to expose our students to cross-disciplinary educational programs
- to provide government and high tech industry employers with graduates in embedded systems engineering technology and related professions

Program Learning Outcomes

1. an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline;

2. an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;

3. an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;

4. an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes; and

5. an ability to function effectively as a member as well as a leader on technical teams.

Software Engineering Technology

Degree Offered

- Bachelor of Science in Software Engineering Technology

Students who complete the curriculum requirements in Software Engineering Technology will be qualified to step into software development and software engineering roles in a wide range of companies.

Career Opportunities

Bachelor of Science in Software Engineering Technology degree graduates find employment as software developers, software engineers, systems engineers, software quality specialists, systems analysts, programmer/analysts, researchers and assistants, consultants, etc., responsible for the design, development, and implementation of software in all areas of industry, government and education.

Mission

The mission of the Software Engineering Technology (SET) Bachelor's Degree Program within Computer Systems Engineering Technology (CSET) Department at Oregon Institute of Technology is to prepare our students for productive careers in industry and government by providing an excellent education incorporating industry-relevant, applied laboratory-based instruction in both the theory and application of software engineering. The program is to serve a constituency consisting of our graduates, our employers and our Industrial Advisory Board. Major components of the SET Program's mission in the CSET Department are:

- to educate a new generation of Software Engineering Technology students to meet current and future industrial challenges and emerging software trends
- to promote a sense of scholarship, leadership and professional service among our graduates
- to enable our students to create, develop, apply and disseminate knowledge within the field of software engineering technology
- to expose our students to cross-disciplinary educational programs
- to provide employers with graduates in software engineering technology and related professions

Program Learning Outcomes

1. an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline;

2. an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;

3. an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;

4. an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes; and

5. an ability to function effectively as a member as well as a leader on technical teams.

Computer Engineering Technology, BS

Students who complete the curriculum requirements in Computer Engineering Technology will be knowledgeable in the theory and applications of
both computer hardware and software.

Career Opportunities

Work in the field of computer engineering technology includes: application specific integrated circuit development, firmware development,
embedded systems design, software development, testing and applications of technology.

Computer Engineering Technology graduates will be involved in development of hardware, software and embedded applications that adapt digital
logic and computer systems to solve problems in a wide range of industries from industrial manufacturing to consumer electronics. In addition, they
may be involved in product testing and qualification or in application engineering, customer support, sales and public relations.
The curriculum goes beyond the associate's degree curriculum providing the greater depth and breadth of technical capability necessary for an
engineer. The graduate is qualified to assume a responsible position in business or industry. Graduates may be responsible for the development, use
and the maintenance of computing systems, and for the supervision of personnel.

New careers are constantly evolving in both the hardware and software branches of this field. A diversified study allows the graduate to quickly adapt
to changing market conditions.

Curriculum

Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- CST 116 - C++ Programming I Credit Hours: 4
- CST 162 - Digital Logic I Credit Hours: 4
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

Winter

- CST 126 - C++ Programming II Credit Hours: 4
- CST 130 - Computer Organization Credit Hours: 3
- MATH 112Z - Precalculus II: Trigonometry Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4
- Social Science Elective Credit: 3

Spring

- CST 120 - Embedded C Credit Hours: 4
- CST 131 - Computer Architecture Credit Hours: 3
- CST 136 - OOP with C++ Credit Hours: 4
- MATH 251 - Differential Calculus Credit Hours: 4

Sophomore Year

Fall

- CST 133 - Digital Logic II Credit Hours: 4
- CST 134 - Instrumentation Credit Hours: 1
- CST 250 - Computer Assembly Lang Credit Hours: 4
- MATH 252 - Integral Calculus Credit Hours: 4
- WRI 227Z - Technical Writing Credit Hours: 4

Winter

- CST 204 - Intro to Microcontrollers Credit Hours: 4
- CST 231 - Digital Systems Design I Credit Hours: 4
- EE 221 - Circuits I Credit Hours: 4
- MATH 254 - Vector Calculus I Credit Hours: 4

Spring

- EE 223 - Circuits II Credit Hours: 4
- CST 240 - Linux Programming Credit Hours: 4
- SPE 321 - Small Group/Team Comm Credit Hours: 3
  Advanced Math Elective Credit Hours: 4[b]

Junior Year

Fall

- CST 337 - Embedded System Architecture Credit Hours: 5
- CST 315 - Embedded Sensor Inter & I/O Credit Hours: 4
- CST 371 - Embedded Systems Development I Credit Hours: 4
- PHY 221 - General Physics w/Calculus Credit Hours: 4

Winter

- CST 331 - Microproc Periph Interfacing Credit Hours: 5
- CST 372 - Embedded Systems Develop II Credit Hours: 3
- PHY 222 - General Physics w/Calculus Credit Hours: 4
  Social Science Elective Credit Hours: 3

Spring

- CST 351 - Digital Systems Design II Credit Hours: 3
- CST 373 - Embedded Systems Develop III Credit Hours: 2
- CST 374 - Embedded Project Proposal Credit Hours: 1
- PHY 223 - General Physics w/Calculus Credit Hours: 4
- WRI 327 - Advanced Tech Writing Credit Hours: 3
  Humanities Elective Credit Hours: 3

Senior Year

Fall

- CST 418 - Data Comm & Networks Credit Hours: 3
- CST 471 - Embedded Senior Project Credit Hours: 3
- PHIL 331 - Ethics in the Professions Credit Hours: 3
  Technical Elective Credit Hours: 3[a]

Winter

- CST 344 - Interm Computer Arch Credit Hours: 3
- CST 472 - Embedded Senior Project Credit Hours: 3
- ECO 201 - Principles of Microeconomics Credit Hours: 3
  or
- ECO 202 - Principles of Macroeconomics Credit Hours: 3
  Technical Elective Credit Hours: 3

Spring

- ANTH 452 - Globalization Credit Hours: 3
- CST 473 - Embedded Senior Project Credit Hours: 2
- CST 442 - Adv Comp Architecture Credit Hours: 3
  Humanities Elective Credit Hours: 3
  Social Science Elective Credit Hours: 3

Total for a B.S. in Computer Engineering Technology: 180 Credit Hours

[a] See your advisor for acceptable technical electives

[b] Electives: MATH 253, MATH 465, MATH 341 or MATH 321

Computer Engineering Technology/Software Engineering Technology, BS

Concurrent Degree

The CSET Department provides the opportunity for the interested student to earn a bachelor's degree in Computer Engineering Technology and Software Engineering Technology concurrently. Such concurrent degree holders are highly sought after in industry since they know and understand both the hardware and software aspects of computers. The purpose of the concurrent CET/SET degree program is to challenge the brightest and most motivated students to become even better prepared for the job market, extending their time in college by an additional year. To obtain both degrees, students must complete the following listed courses along with the courses required for the Bachelor of Science degree in Computer Engineering Technology, with the exception of WRI 327, the CST elective and the MATH elective.

Curriculum

- CST 136 - OOP with C++ Credit Hours: 4
- CST 211 - Data Structures Credit Hours: 4
- CST 229 - Introduction to Grammars Credit Hours: 3
- CST 236 - Engineering for Quality Software Credit Hours: 4
- CST 238 - GUI Programming Credit Hours: 4
- CST 276 - Software Design Pattern Credit Hours: 4

- CST 320 - Compiler Methods Credit Hours: 4
- CST 324 - Database Systems and Design Credit Hours: 4
- CST 334 - Project Proposal Credit Hours: 1
- CST 352 - Operating Systems Credit Hours: 4
- CST 412 - Senior Development Proj Credit Hours: 3
- CST 422 - Sr Development Project Credit Hours: 3
- CST 432 - Senior Development Proj Credit Hours: 2
- CST 415 - Computer Networks Credit Hours: 4
- CST Technical Electives Credit Hours: 9 [a]
- MATH Elective Credit Hours: 3/4 [b]
- MATH 465 - Mathematical Statistics Credit Hours: 4

- WRI 327 - Advanced Tech Writing Credit Hours: 3
  or
- WRI 350 - Documentation Develop Credit Hours: 3

Note:

[a] One Elective must be a CET hardware technical elective—a Hardware CST 407, or CST 456 **OR** one Elective must be a SET software technical elective- CST 356, CST 405, a Software CST 407, CST 426, or CST 465
[b] MATH 321, MATH 322, MATH 327, MATH 341, MATH 342, or MATH 451

Embedded Systems Engineering Technology, BS

Degree Requirements

The Bachelor of Science in Embedded Systems Engineering Technology requires 183 credit hours as prescribed by the curriculum outline.

Note: The Portland-Metro campus is a laptop-required campus with resources like laptop specifications, financial aid, and helpful instructions found at http://www.oit.edu/portland-metro/college-costs/bring-your-own-device.

Curriculum

Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- CST 116 - C++ Programming I Credit Hours: 4
- CST 162 - Digital Logic I Credit Hours: 4
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

Winter

- CST 126 - C++ Programming II Credit Hours: 4

- CST 130 - Computer Organization Credit Hours: 3
- MATH 112Z - Precalculus II: Trigonometry Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4

Spring

- CST 120 - Embedded C Credit Hours: 4
- CST 131 - Computer Architecture Credit Hours: 3
- CST 136 - OOP with C++ Credit Hours: 4
- MATH 251 - Differential Calculus Credit Hours: 4

Sophomore Year

Fall

- CST 133 - Digital Logic II Credit Hours: 4
- CST 134 - Instrumentation Credit Hours: 1
- CST 250 - Computer Assembly Lang Credit Hours: 4
- CST 276 - Software Design Pattern Credit Hours: 4
- MATH 252 - Integral Calculus Credit Hours: 4

Winter

- CST 204 - Intro to Microcontrollers Credit Hours: 4
- CST 231 - Digital Systems Design I Credit Hours: 4
- EE 221 - Circuits I Credit Hours: 4
- MATH 254 - Vector Calculus I Credit Hours: 4

Spring

- CST 211 - Data Structures Credit Hours: 4
- CST 240 - Linux Programming Credit Hours: 4
- PSY 201Z - Introduction to Psychology I Credit Hours: 4
- SPE 321 - Small Group/Team Comm Credit Hours: 3

Junior Year

Fall

- CST 315 - Embedded Sensor Inter & I/O Credit Hours: 4
- CST 337 - Embedded System Architecture Credit Hours: 5
- CST 371 - Embedded Systems Development I Credit Hours: 4
- PHY 221 - General Physics w/Calculus Credit Hours: 4

Winter

- CST 347 - Real Time Embedded Op Systems Credit Hours: 4
- CST 372 - Embedded Systems Develop II Credit Hours: 3

- PHY 222 - General Physics w/Calculus Credit Hours: 4
- MATH 465 - Mathematical Statistics Credit Hours: 4

Spring

- CST 373 - Embedded Systems Develop III Credit Hours: 2
- CST 374 - Embedded Project Proposal Credit Hours: 1
- CST 417 - Embedded Networking Credit Hours: 4
- WRI 227Z - Technical Writing Credit Hours: 4
  Laboratory Science Elective Credit Hours: 4
  Humanities Elective Credit Hours: 3

Senior Year

Fall

- CST 455 - System on a Chip Design Credit Hours: 4
- CST 471 - Embedded Senior Project Credit Hours: 3
  Humanities Elective Credit Hours: 3
  Social Science Elective Credit Hours: 3

Winter

- CST 456 - Embedded System Testing Credit Hours: 4
- CST 472 - Embedded Senior Project Credit Hours: 3
- WRI 350 - Documentation Develop Credit Hours: 3
- ECO 201 - Principles of Microeconomics Credit Hours: 3
  or
- ECO 202 - Principles of Macroeconomics Credit Hours: 3

Spring

- ANTH 452 - Globalization Credit Hours: 3
- CST 466 - Embedded System Security Credit Hours: 3
- CST 473 - Embedded Senior Project Credit Hours: 2
  Humanities Elective Credit Hours: 3
  Technical Elective Credit Hours: 3[a]

Total for a B.S. in Embedded Systems Engineering Technology: 181 Credit Hours

[a] One additional CST upper division course

Software Engineering Technology, BS

Degree Requirements

The Bachelor of Science in Software Engineering Technology degree requires 181 credit hours as prescribed by the curriculum outline.

Curriculum

Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- CST 116 - C++ Programming I Credit Hours: 4
- CST 162 - Digital Logic I Credit Hours: 4
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

Winter

- CST 126 - C++ Programming II Credit Hours: 4
- CST 130 - Computer Organization Credit Hours: 3
- MATH 112Z - Precalculus II: Trigonometry Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4

Spring

- CST 120 - Embedded C Credit Hours: 4
- CST 131 - Computer Architecture Credit Hours: 3
- CST 136 - OOP with C++ Credit Hours: 4
- MATH 251 - Differential Calculus Credit Hours: 4

Sophomore Year

Fall

- CST 250 - Computer Assembly Lang Credit Hours: 4
- CST 276 - Software Design Pattern Credit Hours: 4
- MATH 252 - Integral Calculus Credit Hours: 4
- WRI 227Z - Technical Writing Credit Hours: 4

Winter

- CST 211 - Data Structures Credit Hours: 4
- MATH 254 - Vector Calculus I Credit Hours: 4
- CST 236 - Engineering for Quality Software Credit Hours: 4
  Social Science elective: 3

Spring

- CST 223 - Concepts of Programming Lang Credit Hours: 3
- CST 238 - GUI Programming Credit Hours: 4
- MATH 327 - Discrete Mathematics Credit Hours: 4

- CST 240 - Linux Programming Credit Hours: 4

Junior Year

Fall

- CST 229 - Introduction to Grammars Credit Hours: 3
- CST 316 - JR Team-Based Proj Dev I Credit Hours: 4
- CST 324 - Database Systems and Design Credit Hours: 4
- PHY 221 - General Physics w/Calculus Credit Hours: 4
- SPE 321 - Small Group/Team Comm Credit Hours: 3

Winter

- CST 320 - Compiler Methods Credit Hours: 4
- CST 326 - JR Team-Based Proj Dev II Credit Hours: 4
- PHY 222 - General Physics w/Calculus Credit Hours: 4
- WRI 350 - Documentation Develop Credit Hours: 3
  or
- WRI 327 - Advanced Tech Writing Credit Hours: 3

Spring

- CST 334 - Project Proposal Credit Hours: 1
- CST 336 - JR Team-Based Proj Dev III Credit Hours: 4
- CST 352 - Operating Systems Credit Hours: 4
- PHY 223 - General Physics w/Calculus Credit Hours: 4
  Social Science Elective Credit Hours: 3

Senior Year

Fall

- CST 412 - Senior Development Proj Credit Hours: 3
- CST 415 - Computer Networks Credit Hours: 4
  Humanities Elective Credit Hours: 3
  Technical Elective Credit Hours: 3[a]

Winter

- CST 422 - Sr Development Project Credit Hours: 3
- MATH 465 - Mathematical Statistics Credit Hours: 4
- ECO 201 - Principles of Microeconomics Credit Hours: 3
  or
- ECO 202 - Principles of Macroeconomics Credit Hours: 3
  Humanities Elective Credit Hours: 3
  Technical Elective Credit Hours: 3[a]

Spring

- ANTH 452 - Globalization Credit Hours: 3
- CST 432 - Senior Development Proj Credit Hours: 2
  Humanities Elective Credit Hours: 3
  Technical Elective Credit Hours: 3[a]

Total for a B.S. in Software Engineering Technology: 181 Credit Hours

[a] Three additional CST upper division courses. One CST upper division elective course may be exchanged for an upper division MATH course

Electrical Engineering and Renewable Energy Department

Naga Korivi, *Department Chair*

Professors: M. Aboy, C. Crespo, S. Petrovic, S. Prahl

*Associate Professors:*N.S. Korivi, F. Shi, C. Venugopal
Assistant Professors: J. Eastham, L.E. Hernandez, K. Lee, S. Yang

Degrees Offered

- Master of Science in Engineering - Multiple Specialties (Portland-Metro and Online)
- Master of Science in Renewable Energy Engineering (Klamath Falls, Online and Portland-Metro)
- Bachelor of Science in Electrical Engineering (Klamath Falls and Portland-Metro)
- Bachelor of Science in Electronics Engineering Technology (Portland-Metro)
- Bachelor of Science in Renewable Energy Engineering (Klamath Falls and Portland-Metro)

Dual Majors Offered

- Systems Engineering and Technical Management (Online)

Electrical Engineering, BS

The Bachelor of Science in Electrical Engineering (BSEE) at Oregon Tech is designed to prepare professionals to meet the needs of the growing Electrical Engineering industry. Electrical engineering is concerned with the use of electricity to transmit electric power, or to process information. Electrical engineers design, develop, test, and integrate electrical power systems and electrical machines, as well as electronic systems, including portable electronic devices, medical equipment, communication systems, radar and navigation systems, control and autonomous systems, to include robotics.

The program is designed around a set of core courses which provide a classical electrical engineering foundation, and a number of elective courses that allow students some flexibility to specialize in areas of particular interest, such as electronics, electrical power, optical engineering, renewable energy, etc. Emphasis is placed on practical application of engineering knowledge. The BSEE program at Oregon Tech can accommodate full-time students, transfer students, and working professionals, and provides a solid preparation for industry or graduate school.

Graduates of the Electrical Engineering Program are prepared to fulfill a wide range of functions within industry. Employers of electrical engineering graduates include research and development laboratories, electronic equipment

manufacturers, public utilities, colleges and universities, government agencies, medical laboratories and hospitals, electronic equipment distributors, and semiconductor companies, among others.

The program also provides a solid preparation for students intending to continue to graduate school to pursue master's degrees in engineering, engineering management, MBAs, and JDs.

Program Learning Outcomes

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

Student Preparation

Students entering the Electrical Engineering program from high school should have a minimum of: 1) Two years of high-school algebra and one year of high-school geometry and trigonometry. 2) Two years of physical science (physics, chemistry preferred). 3) Three years of English composition. Additional mathematics, science, English, electronics, and computer languages are helpful.

Students entering the Electrical Engineering program by transfer are requested to contact the department concerning transfer of technical coursework.

Note: The Portland-Metro campus is a laptop-required campus with resources like laptop specifications, financial aid, and helpful instructions found at http://www.oit.edu/portland-metro/college-costs/bring-your-own-device.

Accreditation

The BSEE program is accredited by the Engineering Accreditation Commission (EAC) of ABET, Inc., http://www.abet.org. ABET is a specialized accrediting board recognized by the Council for Higher Education and/or the Secretary of the U.S. Department of Education.

Bachelor of Science in Electrical Engineering (Post-Baccalaureate)

Oregon Tech Bachelor of Science in Electronics Engineering Technology graduates may complete 36 additional credits to receive a Bachelor of Science in Electrical Engineering (post-baccalaureate). Students will receive two diplomas: a BSEET degree (upon completion of the BSEET degree requirements), and a BSEE degree (upon completion of the BSEE degree requirements, which include a minimum of 36 credits from Oregon Tech beyond the BSEET requirements).

Students who have completed an ABET accredited BS degree in Electronics Engineering Technology from another university must complete a minimum of 45 Oregon Tech credits to receive the BS in Electrical Engineering from

Oregon Tech. Students pursuing this option should contact an academic advisor to draft an academic plan that ensures all BSEE curriculum requirements are met.

Bachelor of Science in Electrical Engineering with a Dual Major

Students completing the BSEE program have the option of selecting a dual major. The EERE department currently offers a dual major in Systems Engineering & Technical Management. Students completing a BSEE degree with a dual major will receive a single BS degree with both majors listed on their diploma and transcript. The degree is issued upon completion of the requirements for each major (some courses may be used to meet the requirements for both majors). The requirements for the dual major in Systems Engineering & Technical Management are listed under the corresponding sections of the catalog.

Concurrent Degree in Electrical Engineering and Renewable Energy Engineering

The EERE Department provides the opportunity for interested and motivated students to earn two Bachelor of Science degrees concurrently: a BS in Electrical Engineering & BS in Renewable Energy Engineering. The purpose of this concurrent degree is to provide the top students with a challenging academic program that will prepare them for career opportunities in the electronics, electrical engineering, power, and energy industries. The students receive a BS degree in a classical engineering discipline (Electrical Engineering), as well as an emerging high growth discipline (Renewable Energy Engineering). This concurrent degree program takes approximately an additional year beyond the BSEE degree program (or 4.5 years total by taking courses in Summer term).

Concurrent Accelerated MSREE/BSEE

Students may earn both MSREE and BSEE degrees, awarded simultaneously upon completion of this curriculum. Students enrolled in the BSEE program who have a proven record of academic excellence have the option of completing the MSREE with one additional year of coursework.

To be eligible for this option, students must have a cumulative GPA of 3.0, and must contact the MSREE Program Director for admission into the graduate program by the end of Spring term of their junior year. Students will receive both their BSEE and MSREE degrees at the end of their fifth year. The graduate project requirement must be met by a design project supervised and approved by both EE and REE advisors. Students should contact their academic advisors for details.

Concurrent Accelerated MSE/BSEE

Students may earn both MSE and BSEE degrees, awarded simultaneously upon completion of this curriculum. Students enrolled in the BSEE program who have a proven record of academic excellence have the option of completing the MSE with one additional year of coursework.

To be eligible for this option, students must have a cumulative GPA of 3.0, and must apply for admission into the graduate program by the end of Spring term of their junior year. Students will receive both their BSEE and MSE degrees at the end of their fifth year. Students pursuing this option gain some efficiency by using graduate-level coursework and a graduate project to also satisfy undergraduate coursework and senior capstone project requirements. Students can contact the MSE program director for details.

Electronics Engineering Technology, BS

Oregon Institute of Technology offers an ABET accredited Bachelor of Science degree in Electronics Engineering Technology (BSEET). The program is conveniently offered at the Oregon Tech Portland-Metro campus, with courses offered in the evenings and online in order to accommodate degree seeking professionals working for high-tech

companies in the Portland Westside area. The Willow Creek Center is located in Hillsboro (OR), at the heart of the Portland Westside high-tech industry cluster (Silicon Forest), minutes away from companies such as Intel, Tektronix, Maxim Integrated, Credence, Synopsis, Qorvo, and others. Some of the core and technical elective courses for the degree are also available online and at the Oregon Tech Portland-Metro campus.

Career Opportunities

Electronics Engineering Technology is concerned with theory, concepts, and practice of applied electronics engineering. Emphasis is placed on the practical application of engineering knowledge. As a result, the Electronics Engineering Technology graduate possesses a combination of theoretical and practical understanding and requires minimal on-the-job training.

The BSEET program is designed to prepare graduates to assume engineering and technology positions in the electronics industry. Graduates of the BSEET program fulfill a wide range of functions within industry, typically assuming positions such as component and system design, test engineering, product engineering, field engineering, manufacturing engineering, sales or market engineering, quality control engineering, and other similar roles. The program also provides a solid preparation for students intending to continue to graduate school to pursue master's degrees in engineering, engineering management, and MBAs.

Employers of Electronics Engineering Technology graduates include research and development laboratories, electronic equipment manufacturers, public utilities, colleges and universities, government agencies, medical laboratories and hospitals, electronic equipment distributors, semiconductor companies, and automated electronic controlled processing companies. Recent graduates have been employed at companies such as MAXIM, Tektronix, Qorvo, MSEI/Biotronik, Intel and others.

Program Learning Outcomes

1. an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline;

2. an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;

3. an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;

4. an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes; and

5. an ability to function effectively as a member as well as a leader on technical teams.

Student Preparation

The BSEET degree at Oregon Tech is designed to accommodate working professionals with evening delivery of upper-division and custom bridging courses. It is especially suited for working professionals with an associate degree in Electronics Engineering Technology, Microelectronics Technology, or equivalent coursework. Students entering the BSEET program by transfer are requested to contact the BSEET Program Director concerning transfer of technical coursework. The BSEET program has articulation and transfer agreements with the Electronics, Microelectronics, and Renewable Energy Technology programs at various community colleges in Oregon. Students transferring to Oregon Tech with an AAS degree from these programs will not be required to take any lower-division electronics coursework. It is recommended (but not required) that students who are transferring with an AAS degree have completed Calculus II prior to transferring to the BSEET program at Oregon Tech, since Integral Calculus is a prerequisite for most upper-division BSEET courses.

We encourage transfer students to start the advising process with Oregon Tech upon completion of the first year of their AAS degree.

Note: The Portland-Metro campus is a laptop-required campus with resources like laptop specifications, financial aid, and helpful instructions found at http://www.oit.edu/portland-metro/college-costs/bring-your-own-device.

Accreditation

The Electronics Engineering Technology program is accredited by the Engineering Technology Accreditation Commission (ETAC) of ABET, Inc., http://www.abet.org. ABET is a specialized accrediting board recognized by the Council for Higher Education and/or the Secretary of the U.S. Department of Education.

Bachelor of Science in Electrical Engineering (Post-Baccalaureate)

Oregon Tech Bachelor of Science in Electronics Engineering Technology graduates may complete 36 additional credits to receive a Bachelor of Science in Electrical Engineering (post-baccalaureate). Students will receive two diplomas: a BSEET degree (upon completion of the BSEET degree requirements), and a BSEE degree (upon completion of the BSEE degree requirements, which include a minimum of 36 credits from Oregon Tech beyond the BSEET requirements).

Students who have completed an ABET accredited BS degree in Electronics Engineering Technology from another university must complete a minimum of 45 Oregon Tech credits to receive the BS in Electrical Engineering from Oregon Tech. Students pursuing this option should contact an academic advisor to draft an academic plan that ensures all BSEE curriculum requirements are met.

Renewable Energy Engineering

Degrees Offered

- Master of Science in Renewable Energy Engineering
- Bachelor of Science in Renewable Energy Engineering
- Bachelor of Science in Renewable Energy Engineering and Systems Engineering & Technical Management (dual major)
- Bachelor of Science in Renewable Energy Engineering and Bachelor of Science in Electrical Engineering (concurrent degree)
- Bachelor of Science in Renewable Energy Engineering and Bachelor of Science in Environmental Science (concurrent degree)
- Bachelor of Science in Renewable Energy Engineering and Master of Science in Engineering (concurrent degree)
- Bachelor of Science in Renewable Energy Engineering and Master of Science in Renewable Energy Engineering (concurrent degree)

Note: The BS Renewable Energy Engineering is offered in both the Klamath Falls and Portland-Metro campuses. The different degree options (dual majors, concurrent degrees, etc.) may vary by campus. The MS Renewable Energy Engineering is offered at both the Klamath Falls and Portland-Metro campuses.

Career Opportunities

Program graduates will enter energy careers as power engineers, PV/semiconductor processing engineers, facilities and energy managers, energy system integration engineers, HVAC and M/E/P engineers, design and modeling engineers for net-zero energy buildings, biofuels plant and operations engineers, energy systems control engineers, power

electronics engineers, utility program managers, as well as renewable energy planners and policy makers. Graduates of the program will be able to pursue a wide range of career opportunities, not only within the emerging field of renewable energy, but within more traditional areas of energy engineering as well.

Employers of Renewable Energy Engineering graduates include consulting engineering firms, fuel cell manufacturers, power converter manufacturers, public utilities, government agencies, photovoltaic manufacturers, and energy developers. Recent graduates have been employed at companies such as Advanced Energy, Jacobs Engineering, Power Engineers, and Iberdrola Renewables.

Bachelor of Science in Renewable Energy Engineering

The Bachelor of Science in Renewable Energy Engineering (BSREE) prepares students for the challenges of designing, promoting and implementing renewable energy engineering in societies rapidly changing energy-related industries. Energy, in its many abundant forms, is the driving physical factor upon which industrial societies are founded. As geopolitical, environmental and geological factors act to constrain traditional resources, societies have been forced to re-think and redevelop their energy infrastructures. Renewable energy resources include solar thermal collectors, photovoltaics, ground-source heat pumps, geothermal resources, hydroelectric power, wind power, tidal and wave power, bio-energy, and fuel cells. Oregon Tech's Bachelor of Science in Renewable Energy Engineering prepares students for success in these rapidly developing fields.

The BSREE program is built upon a solid foundation in physics, chemistry, mathematics and communications. Added to this foundation are courses in electrical and mechanical engineering that establish a firm understanding of the fundamentals of energy. The engineering coursework prepares students for renewable energy-specific courses such as photovoltaics, wind power, biofuels, hydroelectric, fuel cells and solar thermal systems. These courses are then integrated into system-wide senior level courses such as energy system design, energy-efficient building systems, renewable energy transportation systems, energy management and energy systems control.

Program Learning Outcomes

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Student Preparation

High school students should be prepared to start their college academic work with at least college calculus and Freshman English composition. Typically, this means the successful new student has completed:

1. Four years of high school mathematics including algebra I and II, geometry and trigonometry
2. Four years of English composition/writing
3. Four years of science including physics and chemistry

Students entering the program by transfer are requested to contact the program director for evaluation of REE-related transfer courses.

Note: The Portland-Metro campus is a laptop-required campus with resources like laptop specifications, financial aid, and helpful instructions found at http://www.oit.edu/portland-metro/college-costs/bring-your-own-device.

Accreditation

The Renewable Energy Engineering baccalaureate program is accredited by the Engineering Accreditation Commission (EAC) of ABET, Inc., http://www.abet.org. ABET is a specialized accrediting board recognized by the Council for Higher Education and/or the Secretary of the U.S. Department of Education.

Bachelor of Science in Renewable Energy Engineering with a Dual Major

Students completing the BSREE program have the option of selecting a dual major. The EERE department currently offers a dual major in Systems Engineering & Technical Management. Students completing a BSREE degree with a dual major will receive a single BS degree with both majors listed on their diploma and transcript. The degree is issued upon completion of the requirements for each major (some courses may be used to meet the requirements for both majors). The requirements for the dual major in Systems Engineering & Technical Management are listed under the corresponding sections of the catalog.

Concurrent Degree in Renewable Energy Engineering and Electrical Engineering

The EERE Department provides the opportunity for interested and motivated students to earn two Bachelor of Science degrees: a BS in Renewable Energy Engineering and a BS in Electrical Engineering. The purpose of this concurrent degree is to provide the top students with a challenging academic program that will prepare them for career opportunities in the electronics, electrical engineering, power and energy industries. The students receive a BS degree in a classical engineering discipline (Electrical Engineering), as well as an emerging high-growth discipline (Renewable Energy Engineering). The degree program will take an additional year beyond the BSREE degree program (or 4.5 years total by taking courses in Summer term.)

Concurrent Degree in Renewable Energy Engineering and Environmental Sciences

Renewable Energy Engineering students have the opportunity to earn a concurrent degree: a BS in Renewable Energy Engineering and a BS in Environmental Sciences. The additional degree requires 54 credits in Environmental Sciences courses, which can be taken concurrent to Renewable Energy Engineering courses or in an add-on year. A second degree in Environmental Sciences places engineering projects in the context of environmental impacts and environmental regulations, and greatly increases job opportunities for Oregon Tech Renewable Energy Engineering graduates. The purpose of the concurrent programs is to challenge motivated students to become even better prepared for the engineering and environmental job markets.

Concurrent Accelerated MSE/BSREE Program

Students may earn both MSE and BSREE degrees, awarded simultaneously upon completion of this curriculum. Students enrolled in the BSREE program who have a proven record of academic excellence have the option of completing the MSE with one additional year of coursework.

To be eligible for this option, students must have a cumulative GPA of 3.0, and must apply for admission into the graduate program by the end of Spring term of their junior year. Students will receive both their BSREE and MSE degrees at the end of their fifth year. Students pursuing this option gain some efficiency by using graduate-level

coursework and a graduate project to also satisfy undergraduate coursework and senior capstone project requirements. Students can contact the MSE program director for details.

Concurrent Accelerated MSREE/BSREE Program

Students may earn both MSREE and BSREE degrees, awarded simultaneously upon completion of this curriculum. Students who enrolled in the BSREE program who have a proven record of academic excellence have the option of completing the MSREE with one additional year of coursework.

To be eligible for this option, students must have a cumulative GPA of 3.0, and must contact the MSREE Program Director for admission into the graduate program by the end of Spring term of their junior year. Students will receive both their BSREE and MSREE degrees at the end of their fifth year. The graduate project requirement must be met by a design project supervised and approved by an REE advisor. Students should contact their academic advisors for details.

Master of Science in Engineering - Multiple Specialties

The Master of Science in Engineering (MSE) is a highly customizable and modular MS program. There are multiple specialties or tracks available based on student interest. Under the supervision of an academic advisor, students are also able to choose coursework from multiple disciplines to design specialties typically not available in the classical engineering disciplines. Consequently, MSE students have the ability to customize the MSE to be highly relevant to their professional interest. The flexibility to design a specialized or multidisciplinary degree program, while maintaining practical focus and academic rigor, is the defining element of the program and is what makes it such a close match to the interdisciplinary environment in today's fast changing industries. This ensures a relevant, up-to-date educational experience, and the ability to meet urgent industry needs in multidisciplinary technical fields. Depending on their interest and career goals, students can choose a multidisciplinary MSE, a specialized MSE, or a more classical MSE program, such as the MSE in Electrical Engineering. The MSE program can accommodate full-time students or working professionals.

Program Learning Outcomes

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Note: The Portland-Metro campus is a laptop-required campus with resources like laptop specifications, financial aid, and helpful instructions found at http://www.oit.edu/portland-metro/college-costs/bring-your-own-device.

Admission Requirements

In addition to Oregon Tech's graduate admission requirements, admission to the MS Engineering (MSE) program requires a BS degree in engineering, physical science, or related technical field. Applicants who do not meet this requirement and apply for admission may be asked to complete a series of undergraduate "bridge" courses prior to formal admission (contact MSE program director for details). Students enrolled in a bachelor's degree program in engineering or engineering technology at Oregon Tech may apply for admission to the accelerated BS + MSE program at the end of their junior year (students interested in this accelerated program are encouraged to contact the MSE program director for details).

MSE/BS Concurrent Fast Track Degree (5 year Program)

Students enrolled in the EERE BS programs (BSEE, BSEET, BSREE) are eligible to apply for the concurrent Fast Track BS/MSE program. This enables students to potentially obtain both the BS and MS degrees in 5 years.

MSE Coursework & Specialties

Students can complete a multidisciplinary program by taking courses in Systems Engineering, Research Methods & Innovation (covering peer-reviewed research, IP fundamentals, and technology commercialization), and one or more engineering disciplines including Electrical & Computer Engineering.

Multidisciplinary MSE Program

- MSE (Multidisciplinary)
- MSE in Systems Engineering

Engineering Discipline MSE Program

- MSE in Electrical Engineering

Specialized MSE Programs

- MSE in Power Engineering

Accreditation

Oregon Institute of Technology is accredited by the Northwest Commission on Colleges and Universities, 8060 165th Ave. NE, Suite 100, Redmond, WA 98052-3981, an institutional accrediting body recognized by the Council for Higher Education Accreditation and/or the Secretary of the U.S. Department of Education.

Master of Science in Renewable Energy Engineering (MSREE)

The Master of Science in Renewable Energy Engineering (MSREE) program is offered at both the Klamath Falls and Portland-Metro campuses. The MSREE program accommodates both full-time students and working professionals. The program is designed to prepare graduates to be energy engineering professionals who have advanced knowledge and skills that enable them to assume a broad range of technical leadership roles.

The MSREE curriculum is built upon core tracks in research methods & innovation and advanced energy engineering. These courses provide the foundation for three required specialized course sequences in renewable energy technologies and nine credits of thesis or graduate R&D project work.

In the second year of the program, students demonstrate mastery on a renewable energy-related topic through REE 596/597/598 - Graduate Thesis or Project Thesis. A thesis answers a question using scientific methods. Projects solve a problem using the engineering design process. In both cases, there should be an element of novelty in students work. Students who have previously received a BS in Engineering from an ABET accredited program may opt for either a Thesis or Project path, or a coursework only path in which REE 596/597/598 - Graduate Thesis or Project Thesis is substituted by technical courses.

Student Preparation

Students should be prepared to start graduate academic work. Typically, this means the successful new student has the following:

1. A baccalaureate degree in engineering, the physical sciences (e.g., physics, chemistry), or a related technical discipline
2. Evidence of potential for graduate academic work, success or potential for success in industry, and demonstrated interest in energy engineering

Accreditation

Oregon Institute of Technology is accredited by the Northwest Commission on Colleges and Universities, 8060 165th Ave. NE, Suite 100, Redmond, WA 98052-3981, an institutional accrediting body recognized by the Council for Higher Education Accreditation and/or the Secretary of the U.S. Department of Education.

Systems Engineering & Technical Management, BS Dual Major

Degree Offered

- Systems Engineering & Technical Management (Dual major)

The major in Systems Engineering & Technical Management is designed as a dual major option for students with an ABET accredited primary major in an engineering discipline offered at Oregon Tech. Students first choose a primary ABET accredited major (e.g., Electrical Engineering, Renewable Energy Engineering, Mechanical Engineering, Civil Engineering), and complete additional specialized coursework to earn a second major in Systems Engineering & Technology Management. The program is designed so that both majors in the degree can be completed in 4 years by taking summer courses. ABET ETAC degree students may also pursue the dual major with departmental approval.

Career Opportunities

Systems engineers address complex problems in areas such as electrical & electronic systems, information systems, renewable energy systems, economic and financial systems, telecommunications, transportation, project management, and manufacturing. Systems engineering is not about specific technologies, but how to put heterogeneous technologies together to formulate system solutions to complex problems. As such, systems engineering is a multidisciplinary engineering discipline concerned with the design, modeling, analysis, and management of technological systems that employ a combination of devices, software, hardware, firmware, materials, and humans for such diverse purposes as communications, energy engineering, health care, transportation or manufacturing. The dual major curriculum provides engineering students with design viewpoints and methodologies that emphasize system integration, and with subject matter and tools for modeling and analysis especially appropriate for large complex systems including system theory, simulation, computational data analysis and statistics, and engineering management. This dual major is designed to address the need for both systems engineering and T-shape individuals at the BS level. After 4 years, graduates of the dual degree program are technically competent in an engineering discipline and ready to enter the workforce as functional engineers but also have formal education, training and skills in systems engineering, project management,

product development, strategy and innovation, and engineering management to assume functional managerial positions, such as project managers and technical team leaders.

Student Preparation

Students considering the dual major in Systems Engineering & Technical Management must first select a primary engineering major and complete the freshman engineering coursework including calculus and calculus-based physics. Upon completion of the freshman primary major requirements, students interested in the Systems Engineering & Technical Management dual major should contact the department chair for an advising appointment. Students who are planning to complete this dual major are encouraged to contact the department chair upon completion of the freshman year.

Accreditation

Completion of a dual major in Systems Engineering & Technical Management is contingent upon finishing a primary major in an ABET accredited program.

Concurrent Accelerated BSEE/MSE

Students enrolled in the BSEE program with a record of academic excellence have the option of earning both a BSEE and a MS Engineering (MSE) degree with an additional year of study (e.g., MSE in Electrical Engineering). The MSE is a flexible multidisciplinary master's degree which is highly customizable to adapt to students' interests and industry needs. Students can select between different tracks or specialties, with the possibility of obtaining a more classical or more specialized graduate degree based on the track selected.

The accelerated and 4+1 options provide efficiency by allowing students to start their graduate level coursework in their senior year, and use some of these courses to simultaneously meet degree requirements for both the BS and MS programs. In the accelerated/concurrent program, students are awarded the BS and MSE degree concurrently at the end of their fifth year of study. On the other hand, in the 4+1 program, the BS degree is awarded in the fourth year, and the MSE degree is awarded in the fifth year. The accelerated option offers the most efficiency in terms of overall credit requirements. To be eligible for the accelerated and 4+1 options, students must have a cumulative GPA of 3.0, and apply for admission into the graduate program by the end of Spring term of their junior year.

Students pursuing the accelerated or 4+1 options follow the standard BSEE curriculum for the first three years, start their graduate coursework in their senior year, and complete the MSE requirements during their fifth (graduate) year, according to the following guidelines:

To meet BSEE requirements:

- Replace 9 credits of undergraduate required or engineering elective courses with graduate-level courses (see MSE curriculum to select adequate courses based on desired MSE track)
- Replace 3 terms of ENGR 465 with 3 terms of ENGR 597

To meet additional MSE requirements:

- Research Methods and Innovation sequence (ENGR 511, ENGR 512, ENGR 513)
- Additional MSE required or elective courses (see MSE curriculum to select adequate courses based on desired MSE track)

Concurrent Accelerated BSEE/MSREE

Students may earn both BSEE and MSREE degrees, awarded simultaneously upon completion of this curriculum. Students enrolled in the BSEE program who have a proven record of academic excellence have the option of completing the MSREE with one additional year of coursework.

To be eligible for this option, students must have a cumulative GPA of 3.0, and must contact the MSREE Program Director for admission into the graduate program by the end of Spring term of the junior year. Students will receive both their BSEE and MSREE degrees at the end of their fifth year. REE 599 requirement must be met by a design project supervised and approved by both EE and REE advisors. Students should contact their academic advisors for details.

Concurrent Accelerated BSEE/MSREE Program

Students pursuing this option follow the standard BSEE curriculum map during the first three years, start their graduate-level courses in the senior undergraduate year, and complete the MSREE requirements during their fifth (graduate) year, according to the following guidelines:

To meet BSEE requirements:

- Replace 9 credits of engineering Electives with one graduate-level REE sequence in Electric Power (REE 529, REE 549, REE 569), PV Systems and Processing (REE 525, REE 545, REE 565), or another advisor-approved MSREE sequence.
- Replace 3 terms of ENGR 465 with 3 terms of Graduate Project (REE 599, 599, 599)

To meet additional MSREE requirements:

- Research Methods and Innovation sequence (REE 511, REE 512, REE 513)
- Energy Engineering sequence (REE 515, REE 516, REE 517) or approved specialization sequence or technical electives
- Graduate-level REE specialization sequence (REE 5xx, 5xx, 5xx)
- Graduate-level REE specialization sequence (REE 5yy, 5yy, 5yy)

Concurrent Accelerated BSREE/MSE

Students enrolled in the BSREE program with a record of academic excellence have the option of earning both a BSREE and a MS Engineering (MSE) degree with an additional year of study. The MSE is a flexible multidisciplinary master's degree which is highly customizable to adapt to students' interests and industry needs. Students can select between different tracks or specialties, with the possibility of obtaining a more classical or more specialized graduate degree based on the track selected.

The accelerated and 4+1 options provide efficiency by allowing students to start their graduate level coursework in their senior year, and use some of these courses to simultaneously meet degree requirements for both the BS and MS programs. In the accelerated/concurrent program, students are awarded the BS and MSE degree concurrently at the end of their fifth year of study. On the other hand, in the 4+1 program, the BS degree is awarded in the fourth year, and the MSE degree is awarded in the fifth year. The accelerated option offers the most efficiency in terms of overall credit requirements. To be eligible for the accelerated and 4+1 options, students must have a cumulative GPA of 3.0, and apply for admission into the graduate program by the end of Spring term of their junior year.

Students pursuing the accelerated or 4+1 options follow the standard BSREE curriculum for the first three years, start their graduate coursework in their senior year, and complete the MSE requirements during their fifth (graduate) year, according to the following guidelines:

To meet BSREE requirements:

- Replace 9 credits of undergraduate required or engineering elective courses with graduate-level courses (see MSE curriculum to select adequate courses based on desired MSE track)
- Replace 3 terms of ENGR 465 with 3 terms of ENGR 597

To meet additional MSREE requirements:

- Research Methods and Innovation sequence (ENGR 511, ENGR 512, ENGR 513)
- Additional MSE required or elective courses (see MSE curriculum to select adequate courses based on desired MSE track)

Concurrent Accelerated BSREE/MSREE Program

Students pursuing this option follow the standard BSREE curriculum map during the first three years, start their graduate-level courses in the senior undergraduate year, and complete the MSREE requirements during their fifth (graduate) year, according to the following guidelines:

To meet BSREE requirements:

- Replace 9 credits of REE senior sequence with one graduate-level REE sequence.
- Replace 3 terms of ENGR 465 with 3 terms of Graduate Project (REE 599, 599, 599).

To meet additional MSREE requirements:

- Research Methods and Innovation sequence (REE 511, REE 512, REE 513)
- Energy Engineering sequence (REE 515, REE 516, REE 517) or approved specialization sequence or technical electives
- Graduate-level REE specialization sequence (REE 5xx, 5xx, 5xx)
- Graduate-level REE specialization sequence (REE 5yy, 5yy, 5yy)

Concurrent Degree in Electrical Engineering and Renewable Energy Engineering

To obtain both degrees (BSEE and BSREE) students must complete all of the courses required for the BSEE degree and the following BSREE courses. Consult with your advisor for details.

Curriculum

[a] Can be used to meet BSEE degree requirements.

Students must complete a minimum of 36 credit hours in addition to the BSEE degree requirements in order to get a second degree.

- CHE 202 - General Chemistry II Credit Hours: 3 [a]
- CHE 205 - General Chemistry II Lab Credit Hours: 1 [a]
- CHE 260 - Electrochemistry for RE Applic Credit Hours: 4
- EE 419 - Power Electronics Credit Hours: 4 [a]
- ENGR 211 - Engineering Mechanics: Statics Credit Hours: 4
- ENGR 355 - Thermodynamics Credit Hours: 3

- HIST 356 - A History of Energy Credit Hours: 3 [a]
  or
- MECH 318 - Fluid Mechanics Credit Hours: 4
- MECH 323 - Heat Transfer I Credit Hours: 3

- REE 243 - Electrical Power Credit Hours: 4 [a]
- REE 253 - Electromech Energy Conversion Credit Hours: 3
- REE 33X - REE Elective Credit Hours: 3
- REE 3XX - REE Elective Credit Hours: 3
- REE 412 - Photovoltaic Systems Credit Hours: 3 [a]
- REE 413 - Electric Power Conv Systems Credit Hours: 4
- REE 463 - Energy Systems Instrumentation Credit Hours: 3
- REE 4XX - REE Elective Credit Hours: 3

Concurrent Degree in Renewable Energy Engineering and Electrical Engineering

To obtain both degrees (BSREE and BSEE) students must complete all of the courses required for the BSREE degree and the following BSEE courses. Consult with your advisor for details.

Courses

- CST 116 - C++ Programming I Credit Hours: 4
- EE 323 - Electronics II Credit Hours: 5
- EE 331 - Digital System Design w/HDL Credit Hours: 4
- EE 333 - Intro to Microcontrollers Credit Hours: 4 [b]
- EE 341 - Electricity/Magnetism w/Transm Credit Hours: 4 [b]
- EE 343 - Solid State Electronic Devices Credit Hours: 3 [a]
- EE 430 - Linear Sys & Digital Signal Credit Hours: 5
- EE 335 - Advanced Microcontrollers Credit Hours: 4
- MATH 253 - Sequences and Series Credit Hours: 4
- MATH 465 - Mathematical Statistics Credit Hours: 4 [a]
- MGT 345 - Engineering Economy Credit Hours: 3

Notes:

[a] MATH 465 can be used in place of MATH 361 to meet BSREE degree requirements. EE 343 can be used in place of REE 337 to meet BSREE degree requirements
[b] Can be used as Renewable Energy Engineering Electives
[c] Students can substitute with EE 131/EE 133 sequence

Students must complete a minimum of 36 credit hours in addition to the BSREE degree requirements in order to get a dual degree.

Concurrent Degree in Renewable Energy Engineering and Environmental Sciences

To obtain both degrees, students must complete the following listed courses along with the courses required for the Bachelor of Science in Renewable Energy Engineering.

Courses:

- BIO 211 - Principles of Biology Credit Hours: 4
- BIO 212 - Principles of Biology Credit Hours: 4
- BIO 213 - Principles of Biology Credit Hours: 4

- CHE 223 - General Chemistry III Credit Hours: 5 [a]
- CHE 315 - Environmental Analytical Chemistry Credit Hours: 4
- CHE 331 - Organic Chemistry I Credit Hours: 4
- CHE 465 - Fate/Transport of Pollutants Credit Hours: 4
- Ecology Elective Credit Hours: 4
- ENV 111 - Intro to Env Sciences Credit Hours: 4
- ENV 214 - Watershed Sci & Tech Credit Hours: 3
- ENV 224 - Scientific Reason & Method Credit Hours: 3
- ENV 314 - Environmental Policy and Management Credit Hours: 3
- ENV 484 - Sustainable Human Ecology Credit Hours: 4
- MATH 362 - Statistical Methods II Credit Hours: 4

Total Additional Credits Needed: 53

[a] CHE 223 may be taken as BS Civil Engineering math/science elective

Electrical Engineering (Post-Baccalaureate), BS

The following is a list of additional courses that Oregon Tech BSEET graduates are required to complete in order to meet the BSEE degree requirements.

Curriculum

Mathematics and Science

- CHE 201 - General Chemistry I Credit Hours: 3 [a]
- CHE 204 - General Chemistry I Lab Credit Hours: 1 [a]
- CHE 202 - General Chemistry II Credit Hours: 3 [a]
- CHE 205 - General Chemistry II Lab Credit Hours: 1 [a]
- MATH 253 - Sequences and Series Credit Hours: 4
- MATH 341 - Linear Algebra I Credit Hours: 4
- MATH 465 - Mathematical Statistics Credit Hours: 4

Electrical Engineering

- EE 341 - Electricity/Magnetism w/Transm Credit Hours: 4
- EE 343 - Solid State Electronic Devices Credit Hours: 3

Engineering Technical Electives

- Engineering Elective (EE, REE) Credit Hours: 3 [b]
- Engineering Elective (EE, REE) Credit Hours: 3 [b]

Total needed if a BSEET degree awarded by Oregon Tech: 36 Credit Hours

Additional credits needed for students who completed a BSEET degree from another institution: 45 Credit Hours

- Engineering Elective (EE, REE) Credit Hours: 3 [b]
- Engineering Elective (EE, REE) Credit Hours: 3 [b]
- Engineering Elective (EE, REE) Credit Hours: 3 [b]

[a] CHE 201/CHE 204 and CHE 202/CHE 205 can be substituted with CHE 221 and CHE 222 respectively. CHE 202/CHE 205 can be substituted with an approved 4 credit Math/Science Elective
[b] Requires approval

Electrical Engineering, BS

Degree Requirements

The Bachelor of Science in Electrical Engineering follows a rigorous curriculum, requiring a minimum of 180 credit hours, which takes approximately four years to complete. To be eligible for graduation, students must maintain a 2.0 GPA. In addition, a final grade of "C" or better must be earned in all courses with CST, EE, ENGR, MATH, PHY prefixes, as well as in all technical elective courses.

All courses listed in the curriculum map for the catalog year of graduation must be completed to be eligible for graduation. Any deviations from the courses listed in the curriculum map require approval from the academic advisor, the department chair, and the Registrar's office. Approvals are not official until entered in the official student records. When changes are made to the curriculum, students who entered the program under a previous catalog will work with their academic advisors to transition to meet the requirements of the current catalog.

Curriculum

Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- CHE 201 - General Chemistry I Credit Hours: 3
- CHE 204 - General Chemistry I Lab Credit Hours: 1
- EE 131 - Digital Electronics I Credit Hours: 4
- ENGR 101 - Intro to Engineering I Credit Hours: 2
- MATH 251 - Differential Calculus Credit Hours: 4

Winter

- EE 133 - Digital Electronics II Credit Hours: 4
- ENGR 102 - Intro to Engineering II Credit Hours: 2
- MATH 252 - Integral Calculus Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4

Spring

- CST 116 - C++ Programming I Credit Hours: 4
- MATH 341 - Linear Algebra I Credit Hours: 4 [b]
- WRI 121Z - Composition I Credit Hours: 4
  Lower division Math/Science Elective Credit: 4

Sophomore Year

Fall

- EE 221 - Circuits I Credit Hours: 4
- MATH 321 - Appl Diff Equation I Credit Hours: 4
- PHY 221 - General Physics w/Calculus Credit Hours: 4
- WRI 227Z - Technical Writing Credit Hours: 4
  or
- WRI 122Z - Composition II Credit Hours: 4

Winter

- EE 223 - Circuits II Credit Hours: 4
- ENGR 267 - Engineering Programming Credit Hours: 3
- MATH 254 - Vector Calculus I Credit Hours: 4
- PHY 222 - General Physics w/Calculus Credit Hours: 4

Spring

- EE 225 - Circuits III Credit Hours: 4
- MATH 253 - Sequences and Series Credit Hours: 4
- PHY 223 - General Physics w/Calculus Credit Hours: 4
  Humanities Elective Credit: 3

Junior Year

Fall

- EE 321 - Electronics I Credit Hours: 5
- EE 333 - Intro to Microcontrollers Credit Hours: 4
- MATH 465 - Mathematical Statistics Credit Hours: 4 [b]
  Social Science Elective Credit: 3

Winter

- EE 323 - Electronics II Credit Hours: 5
- EE 331 - Digital System Design w/HDL Credit Hours: 4
- EE 341 - Electricity/Magnetism w/Transm Credit Hours: 4
  Social Science Elective Credit: 3

Spring

- EE 335 - Advanced Microcontrollers Credit Hours: 4
- EE 461 - Control Engineering I: Classical Methods Credit Hours: 4
  Humanities Elective Credit: 3
  Upper Division Technical Elective 4

Senior Year

Fall

- EE 343 - Solid State Electronic Devices Credit Hours: 3
- ENGR 465 - Capstone Project Credit Hours: 2
- SPE 321 - Small Group/Team Comm Credit Hours: 3
  Social Science Elective Credit: 3
  Upper Division Technical Elective: 3[f]

Winter

- EE 430 - Linear Sys & Digital Signal Credit Hours: 5
- ENGR 465 - Capstone Project Credit Hours: 2
  Humanities Elective Credit: 3
- MGT 345 - Engineering Economy Credit Hours: 3
  Advanced Writing Elective: 3[a]

Spring

- EE 401 - Communication Systems Credit Hours: 5
- ENGR 465 - Capstone Project Credit Hours: 2
  Social Science Elective Credit: 3
  Upper Division Technical Elective: 3[f]

Total for a B.S. in Electrical Engineering: 180 Credit Hours

[a] Select from: WRI 327, WRI 350, or WRI 410

[b] MATH 341 can be replaced with MATH 261. MATH 465 can be replaced with MATH 361

c CHE 201/CHE 204 can be substituted with CHE 221

[d] BIO, CHE, ENV, GEOL, MATH, or PHY class (or advisor approved Math/Science elective)

[e] EE 225 can be replaced with EE 320

[f] Technical electives include upper division EE and REE courses (except EE 311, EE 320, EE 347, and EE 431), and courses listed for a specific BSEE technical emphasis. Other courses may be used with advisor approval

Technical Emphases

Students in the BSEE program may choose to specialize in a particular area by selecting at least three of their engineering technical elective courses from the appropriate list below. These lists of courses are provided only for guidance. Students are not required to select a technical emphasis, and technical emphases will not appear on the students' transcripts. Some technical elective courses in the emphases may not be available at both campuses. Check course offerings with your advisor.

Electrical Power

Choose at least three engineering elective courses from the following list:

- EE 419 - Power Electronics Credit Hours: 4
- REE 243 - Electrical Power Credit Hours: 4
- REE 253 - Electromech Energy Conversion Credit Hours: 3
- REE 345 - Wind Power Credit Hours: 3
- REE 453 - Power System Analysis Credit Hours: 3
- REE 454 - Power Syst Protection & Ctnrl Credit Hours: 3

Microelectronics

Choose at least three engineering elective courses from the following list:

- EE 325 - Electronics III Credit Hours: 5
- EE 432 - Advanced Digital System Design Credit Hours: 4
- EE 485 - Printed Circuit Board Design Credit Hours: 4

Renewable Energy

Choose at least three engineering elective courses from the following list:

- EE 419 - Power Electronics Credit Hours: 4
- REE 243 - Electrical Power Credit Hours: 4
- REE 253 - Electromech Energy Conversion Credit Hours: 3
- REE 345 - Wind Power Credit Hours: 3
- REE 412 - Photovoltaic Systems Credit Hours: 3
- REE 413 - Electric Power Conv Systems Credit Hours: 4

Robotics, Autonomous Systems, and Control Engineering

Choose at least three engineering elective courses from the following list:

- ENGR 461 - Modeling and Simulation of Dynamic Systems Credit Hours: 4
- ENGR 463 - Motion Control in Mechanisms and Robotics Credit Hours: 4
- ENGR 464 - Autonomous Systems Credit Hours: 4
- REE 463 - Energy Systems Instrumentation Credit Hours: 3

Optical Engineering

(Optical Engineering courses are currently only available at the Portland-Metro campus.)

Choose at least three engineering elective courses from the following list:

- EE 448 - Geometric Optics Credit Hours: 4
- EE 452 - Waveguides and Fiber Optics Credit Hours: 4

Electronics Engineering Technology, BS

Degree Requirements

The Bachelor of Science in Electronics Engineering Technology follows a rigorous curriculum, requiring a minimum of 180 credit hours, which takes approximately four years to complete. To be eligible for graduation, students must maintain a 2.0 GPA. In addition, a final grade of "C" or better must be earned in all courses with CST, EE, ENGR, MATH, PHY prefixes, as well as in all technical elective courses.

All courses listed in the curriculum map for the catalog year of graduation must be completed to be eligible for graduation. Any deviations from the courses listed in the curriculum map require approval from the academic advisor, the department chair, and the Registrar's office. Approvals are not official until entered in the official student records. When changes are made to the curriculum, students who entered the program under a previous catalog will work with their academic advisors to transition to meet the requirements of the current catalog.

Curriculum

The curriculum map below shows the required courses, recommended sequence, and recommended terms during which they should be taken for students transferring into the program with an accredited AAS degree or equivalent lower division coursework (freshman and sophomore years).

Transfer students and part-time students should contact the BSEET program director to develop a customized curriculum tailored to their individual needs.

Freshman and Sophomore Years

The degree requirements for the first two years can be fulfilled by completing an accredited Associate of Applied Science degree in Electronics Engineering Technology, Microelectronics Engineering Technology, Microelectronics Technology, Electrical Engineering Transfer, Renewable Energy Technology, or equivalent coursework. Oregon Tech has articulation agreements with various community colleges throughout Oregon. Students transferring to Oregon Tech with an AAS degree from these programs will not be required to take any lower-division electronics courses at Oregon Tech. In addition to the electronics courses, students should complete the programming, math and science, communication, and general education courses specified below during the Freshman and Sophomore years while completing their AAS degree in order to be able to complete the upper-division (Junior and Senior) BSEET courses at Oregon Tech in two years. Below is a list of courses to satisfy the requirements for the first two years of the degree. Completion of all these courses is not required to be able to transfer, but it is recommended for 2+2 transferability.

Communication

- COM 111Z - Public Speaking Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4

General Education

- Humanities Elective Credit Hours: 6
- Social Science Elective Credit Hours: 9

Total: 15 Credit Hours

Mathematics and Science

- MATH 111Z - Precalculus I: Functions Credit Hours: 4

- MATH 112Z - Precalculus II: Trigonometry Credit Hours: 4
- MATH 251 - Differential Calculus Credit Hours: 4
- MATH 252 - Integral Calculus Credit Hours: 4
- PHY 201 - General Physics Credit Hours: 4 [e]
- PHY 202 - General Physics Credit Hours: 4 [e]
- PHY 203 - General Physics Credit Hours: 4 [e]

Electronics

- EE 131 - Digital Electronics I Credit Hours: 4
- EE 133 - Digital Electronics II Credit Hours: 4

Programming

- CST 116 - C++ Programming I Credit Hours: 4

Upper Division Courses

Junior Year

Fall

- EE 320 - Adv Circuit Systems Analysis Credit Hours: 5 [f]
- EE 321 - Electronics I Credit Hours: 5
- MATH 321 - Appl Diff Equation I Credit Hours: 4

Winter

- EE 323 - Electronics II Credit Hours: 5
- EE 331 - Digital System Design w/HDL Credit Hours: 4
- ENGR 267 - Engineering Programming Credit Hours: 3
- SPE 321 - Small Group/Team Comm Credit Hours: 3

Spring

- EE 325 - Electronics III Credit Hours: 5
- EE 432 - Advanced Digital System Design Credit Hours: 4 [g]
  Social Science Elective Credit: 3

Senior Year

Fall

- ENGR 465 - Capstone Project Credit Hours: 2
- EE 333 - Intro to Microcontrollers Credit Hours: 4
  Upper Division Technical Elective: 3[d]
- MATH 361 - Statistical Methods I Credit Hours: 4
  [a]

Humanities Elective Credit: 3

Winter

- EE 430 - Linear Sys & Digital Signal Credit Hours: 5
- ENGR 465 - Capstone Project Credit Hours: 2
  Upper Division Technical Elective: 4[d]
  Advanced Writing Elective[d]

Spring

- EE 335 - Advanced Microcontrollers Credit Hours: 4
- EE 401 - Communication Systems Credit Hours: 5
- ENGR 465 - Capstone Project Credit Hours: 2
- MGT 345 - Engineering Economy Credit Hours: 3

Total for a B.S. in Electronics Engineering Technology: 180 Credit Hours

[a] May be replaced by STAT 243Z or MATH 465.
[b] Lower Division Technical electives include CST 126, CST 136, and other approved 200-level engineering or engineering technology courses
[c] Choose from WRI 327, WRI 350, and WRI 410.
[d] Upper division EE or REE courses (except EE 311, EE 320, and EE 347), or courses included in the list for a specific degree option (students must satisfy course pre- and co-requisites). Other courses may be used as engineering electives with advisor and department chair approval. Students must complete a minimum of 7 credits of engineering elective coursework.

[e] The calculus-based physics sequence PHY 221, PHY 222, and PHY 223 can be subsituted for the algebra-based physic sequence PHY 201, PHY 202, PHY 203.

[f] EE 320 can be substituted with EE 225. EE 432 can be substituted with an approved technical elective.

[g] or other advisor-approved upper-division design elective

Technical Emphases

Students in the BSEET program may choose to specialize in a particular area by selecting their engineering elective courses from the appropriate list below. These lists of courses are provided only for guidance. Students are not required to select a technical emphasis, and technical emphases will not appear on the students' transcripts. Some technical elective courses in the emphases may not be available in both campuses. Check course offerings with your advisor.

Electrical Power

Choose technical elective courses from the following list:

- EE 419 - Power Electronics Credit Hours: 4
- REE 243 - Electrical Power Credit Hours: 4
- REE 253 - Electromech Energy Conversion Credit Hours: 3
- REE 345 - Wind Power Credit Hours: 3
- REE 453 - Power System Analysis Credit Hours: 3

- REE 454 - Power Syst Protection & Ctnrl Credit Hours: 3

Microelectronics

Choose technical elective courses from the following list:

- EE 341 - Electricity/Magnetism w/Transm Credit Hours: 4
- EE 343 - Solid State Electronic Devices Credit Hours: 3
- EE 485 - Printed Circuit Board Design Credit Hours: 4

Optical Engineering

Choose technical elective courses from the following list:

- EE 448 - Geometric Optics Credit Hours: 4
- EE 452 - Waveguides and Fiber Optics Credit Hours: 4

Note:

Optical Engineering emphasis only available at Portland-Metro campus.

Renewable Energy

Choose technical elective courses from the following list:

- EE 419 - Power Electronics Credit Hours: 4
- REE 243 - Electrical Power Credit Hours: 4
- REE 253 - Electromech Energy Conversion Credit Hours: 3
- REE 345 - Wind Power Credit Hours: 3
- REE 412 - Photovoltaic Systems Credit Hours: 3
- REE 413 - Electric Power Conv Systems Credit Hours: 4

Robotics, Autonomous Systems, and Control Engineering

Choose technical Elective courses from the following list:

- ENGR 461 - Modeling and Simulation of Dynamic Systems Credit Hours: 4
- ENGR 463 - Motion Control in Mechanisms and Robotics Credit Hours: 4
- ENGR 464 - Autonomous Systems Credit Hours: 4
- REE 463 - Energy Systems Instrumentation Credit Hours: 3

Note:

Robotics, Autonomous Systems, and Control Engineering emphasis only available at Portland-Metro campus.

Engineering (Multiple Disciplines), MS

Depending on their interest and career goals students can choose a multidisciplinary MSE, a specialized MSE, or a more classical MSE program such as the MSE in Electrical Engineering.

The multidisciplinary MSE program is designed as a highly customizable and modular MS engineering degree, which enables students to choose coursework from multiple disciplines to design specialties typically not available in the classical engineering MS degrees.

The flexibility in the MS in Engineering degree ensures a relevant, up-to-date educational experience, and the ability to meet urgent industry needs in multidisciplinary technical fields. The program is designed to provide maximum flexibility while maintaining academic rigor.

Program Design

The MSE is designed as a "Flexible/Multidisciplinary Engineering Degree." As such, the students have the flexibility to customize the MSE to be highly relevant to their professional interests. The flexibility to design specialized or multidisciplinary degree programs is the defining element of the program and is what makes it such a close match to the interdisciplinary environment in today's fast changing industries. Through a faculty advisory committee, coursework is personally customized for the student or industry partner company to best match the desired outcomes based on a thorough needs assessment.

Program Mission and Objectives

The MSE at Oregon Tech is designed to prepare engineering professionals with advanced knowledge and skills in high-demand multi-disciplinary engineering fields who are ready to assume a broad range of technical and leadership roles.

Student Preparation

Students should be prepared to start graduate engineering academic work. Typically, this means the successful new student has the following:

1. A baccalaureate degree in engineering, the physical sciences, or a related technical discipline.

2. Evidence of potential for graduate academic work, success or potential for success in industry, and demonstrated interest in their chosen specialty.

BS/MSE Concurrent Fast Track Degree (5 year Program)

Students enrolled in the EERE BS programs are eligible to apply for the concurrent Fast Track BS/MSE program. This enables students to potentially obtain both the BS and MSE degrees in 5 years.

MSE Coursework & Specialties

Students can complete a multidisciplinary program by taking courses in Systems Engineering, Research Methods & Innovation (covering peer-reviewed research, IP fundamentals, and technology commercialization), and one or more engineering disciplines including Electrical & Computer Engineering.

Multidisciplinary MSE Program

- MSE (Multidisciplinary)
- MSE in Systems Engineering

Engineering Discipline MSE Program

- MSE in Electrical Engineering

Specialized MSE Programs

- MSE in Embedded Systems
- MSE in Automation, Robotics & Control
- MSE in Optical Engineering
- MSE in Power Engineering

Optical Engineering, BS Dual Major

Degree Requirements

A dual major in Optical Engineering requires 40 specialized credits in optics and electrical engineering. Some of these courses may be used to meet requirements in the primary major also. The capstone project required in the student's primary major is expected to incorporate elements from both the primary and optical engineering majors. Since the required courses for Optical Engineering must be taken along with those for the primary major, a full curriculum map is not provided. Students should carefully plan each term in consultation with their primary major advisor and with their Optical Engineering advisor. To obtain a dual major in optical engineering, students must complete the courses required for the Bachelor of Science degree in their primary engineering major as well as the following list of specialized Optical Engineering courses:

- EE 221 - Circuits I Credit Hours: 4
- EE 223 - Circuits II Credit Hours: 4
- EE 225 - Circuits III Credit Hours: 4
- EE 343 - Solid State Electronic Devices Credit Hours: 3

- EE 448 - Geometric Optics Credit Hours: 4
  or
- PHY 448 - Geometric Optics Credit Hours: 4

- PHY 449 - Radiometry & Optical Detect Credit Hours: 4

- PHY 450 - Physical Optics Credit Hours: 4

- PHY 451 - Lasers Credit Hours: 4

- EE 452 - Waveguides and Fiber Optics Credit Hours: 4
  or
- PHY 452 - Waveguides and Fiber Optics Credit Hours: 4

- PHY 453 - Optical Metrology Credit Hours: 4

Power Systems Engineering, Graduate Certificate

The certificate in Powers Systems Engineering is comprised of four courses totaling 13 credits that can be completed in one academic year. This certificate will provide students with the skills needed for a growing number of jobs in the power industry.

Required Courses (13 credits)

- EE 507 - Seminar Credit Hours: 12
- REE 529 - Power System Analysis Credit Hours: 3
- REE 549 - Power System Protection/Contrl Credit Hours: 3
- REE 569 - Grid Integration of Renewables Credit Hours: 3

Renewable Energy Engineering, BS

Degree Requirements

The Bachelor of Science in Renewable Energy Engineering follows a rigorous curriculum, requiring a minimum of 180 credit hours, which takes approximately four years to complete. To be eligible for graduation, students must maintain a 2.0 GPA. In addition, a final grade of "C" or better must be earned in all courses with MATH, CHE, PHY, EE, ENGR, MECH, and REE prefixes. Students must also earn a grade of "C" or better in all courses listed as prerequisites for these courses.

All courses listed in the curriculum map for the catalog year of graduation must be completed to be eligible for graduation. Any deviations from the courses listed in the curriculum map require approval from the academic advisor, the department chair, and the Registrar's office. Approvals are not official until entered in the official student records. When changes are made to the curriculum, students who entered the program under a previous catalog will work with their academic advisors to transition to meet the requirements of the current catalog.

Curriculum

Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- CHE 201 - General Chemistry I Credit Hours: 3
- CHE 204 - General Chemistry I Lab Credit Hours: 1
- MATH 251 - Differential Calculus Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4
- ENGR 101 - Intro to Engineering I Credit Hours: 2

Winter

- CHE 202 - General Chemistry II Credit Hours: 3
- CHE 205 - General Chemistry II Lab Credit Hours: 1
- ECO 202 - Principles of Macroeconomics Credit Hours: 3
- ENGR 102 - Intro to Engineering II Credit Hours: 2
- MATH 252 - Integral Calculus Credit Hours: 4

Spring

- CHE 260 - Electrochemistry for RE Applic Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

- MATH 341 - Linear Algebra I Credit Hours: 4 [e]
  Social Science Elective Credit: 3

Sophomore Year

Fall

- EE 221 - Circuits I Credit Hours: 4
- MATH 321 - Appl Diff Equation I Credit Hours: 4
- PHY 221 - General Physics w/Calculus Credit Hours: 4
- WRI 227Z - Technical Writing Credit Hours: 4
  or
- WRI 122Z - Composition II Credit Hours: 4

Winter

- EE 223 - Circuits II Credit Hours: 4
- ENGR 267 - Engineering Programming Credit Hours: 3
- MATH 254 - Vector Calculus I Credit Hours: 4
- PHY 222 - General Physics w/Calculus Credit Hours: 4

Spring

- EE 225 - Circuits III Credit Hours: 4
- ENGR 211 - Engineering Mechanics: Statics Credit Hours: 4
- MATH 465 - Mathematical Statistics Credit Hours: 4
- PHY 223 - General Physics w/Calculus Credit Hours: 4

Junior Year

Fall

- EE 321 - Electronics I Credit Hours: 5
- MECH 318 - Fluid Mechanics Credit Hours: 4 [m]
  Humanities Elective Credit: 3
- REE 337 - Materials for RE Applications Credit Hours: 3 [h]

Winter

- ENGR 355 - Thermodynamics Credit Hours: 3
- REE 243 - Electrical Power Credit Hours: 4
- REE 412 - Photovoltaic Systems Credit Hours: 3
- REE 463 - Energy Systems Instrumentation Credit Hours: 3
- Social Science Elective Credit: 3

Spring

- EE 461 - Control Engineering I: Classical Methods Credit Hours: 4

- MECH 323 - Heat Transfer I Credit Hours: 3 [j]
- REE 253 - Electromech Energy Conversion Credit Hours: 3
- Renewable Energy Engineering Elective Credit: 3
  Social Science Elective Credit: 3

Senior Year

Fall

- ENGR 465 - Capstone Project Credit Hours: 2
- REE 333 - Batteries Credit Hours: 3 [k]
- REE 4XX - Senior Sequence I: 3
- SPE 321 - Small Group/Team Comm Credit Hours: 3
  Humanities Elective Credit: 3

Winter

- EE 419 - Power Electronics Credit Hours: 4
- ENGR 465 - Capstone Project Credit Hours: 2
- REE 4XX - Senior Sequence II: 3
- Renewable Energy Engineering Elective: 3
- WRI 3XX/4XX Advanced Writing: 3

Spring

- ENGR 465 - Capstone Project Credit Hours: 2
- REE 413 - Electric Power Conv Systems Credit Hours: 4
- Humanities Elective Credit: 3
- REE 4XX - Senior Sequence III: 3
- Renewable Energy Engineering Elective: 3

Total for a B.S. in Renewable Energy Engineering: 180 credit Hours

[a] CHE 201/CHE 204 and CHE 202/CHE 205 can be substituted with CHE 221 and CHE 222 respectively

[b] Course may be repeated multiple times for credit with approval

[c] ECO 202 can be replaced with ECO 201

[d] REE 201 + 1 engineering credit may replace ENGR 101/102 for Portland Metro students

[e] MATH 341 can be replaced with MATH 261

[g] MATH 465 can be replaced with MATH 361

[h] REE 337 can be replaced with EE 343

[i] HIST 357 can be replaced with HIST 356

[h] MECH 323 can be replaced with ENGR 318

[k] REE 333 can be replaced with REE 335 or REE 331

[l] Choose from WRI 327 , WRI 350 , and WRI 410

[m] Portland Metro students take ENGR 355 in fall and MECH 318 in winter

Renewable Energy Engineering Electives

Students in the BSREE program are required to complete 9 credits of technical electives classes. At least 3 of these classes must be REE 300-level or above and up to two courses from the following list: 300- or 400-level EE courses (except for EE 320), ENGR42X, or SEM42X. No more than three 1-credit courses are allowed. Enrollment in graduate-level courses at the undergraduate level requires special approval. Examples of acceptable elective courses are:

- EE 341 - Electricity/Magnetism w/Transm Credit Hours: 4
- EE 343 - Solid State Electronic Devices Credit Hours: 3
- MECH 433 - HVAC Credit Hours: 3
- REE 307 - Seminar Credit Hours: 12
- REE 331 - Fuel Cells Credit Hours: 3
- REE 333 - Batteries Credit Hours: 3
- REE 335 - Hydrogen Credit Hours: 3
- REE 344 - Nuclear Energy Credit Hours: 3
- REE 345 - Wind Power Credit Hours: 3
- REE 348 - Solar Thermal Energy Systems Credit Hours: 3
- REE 407 - Seminar Credit Hours: 12
- REE 439 - Energy Systems Auditing and Management Credit Hours: 3
- REE 453 - Power System Analysis Credit Hours: 3
- REE 454 - Power Syst Protection & Ctnrl Credit Hours: 3
- REE 455 - Energy Efficient Building Dsgn Credit Hours: 3
- REE 469 - Grid Integration of Renewables Credit Hours: 3

Renewable Energy Engineering, MS

Degree Requirements

The Master of Science in Renewable Energy Engineering is a rigorous curriculum that requires 45 credit hours and approximately two years to complete.

Note: The Portland-Metro campus is a laptop-required campus with resources like laptop specifications, financial aid, and helpful instructions found at http://www.oit.edu/portland-metro/college-costs/bring-your-own-device.

Curriculum

Required courses and recommended terms during which they should be taken:

First Year

Fall

- REE 515 - Energy Engineering I Credit Hours: 3
- REE 5xx REE Specialization Sequence X: 1 of 3
- 500-level advisor-approved elective credit

Winter

- REE 516 - Energy Engineering II Credit Hours: 3
- REE 5xx REE Specialization Sequence X: 2 of 3
- 500-level advisor-approved elective

Spring

- REE 517 - Energy Engineering III Credit Hours: 3
- REE 5xx REE Specialization Sequence X: 3 of 3
- 500-level advisor-approved elective credit

Second Year

Fall

- REE 5yy Specialization Sequence Y: 1 of 3
  and either
- REE 5zz REE Specialization Sequence Z: 1 of 3
  or
- ENGR 596 Graduate Research & Development

Winter

- REE 5yy Specialization Sequence Y: 2 of 3
  and either
- REE 5zz REE Specialization Sequence Z: 2 of 3
  or
- ENGR 596 Graduate Research & Development

Spring

- REE 5yy REE Specialization Sequence Y: 3 of 3
  and either
- REE 5zz Specialization Sequence Z: 3 of 3
  or
- ENGR 596 Graduate Research & Development
- ENGR 597 Graduate Project
- ENGR 598 Graduate Thesis

Total for a M.S. in Renewable Energy Engineering: 45 Credit Hours

Renewable Energy Specialization Sequences

Students must complete at least two REE specialization sequences from the list below. One sequence constitutes three courses under the titles below. Other sequences may be used to satisfy this requirement with advisor and department chair approval. Not all sequences are offered every year. Some sequences are campus specific.

Advanced Energy Storage

- REE 591 - Hydrogen Prod & Storage Credit Hours: 3
- REE 592 - Advanced Batteries Credit Hours: 3
- REE 593 - Advanced Fuel Cells Credit Hours: 3

Biofuels and Biomass

Electrical Power Systems

- REE 529 - Power System Analysis Credit Hours: 3
- REE 549 - Power System Protection/Contrl Credit Hours: 3
- REE 569 - Grid Integration of Renewables Credit Hours: 3

Electrochemical Systems

Electric Vehicles

Energy Efficient Building Systems

- REE 533 - Heating, Ventilation/Air Condi Credit Hours: 3
- REE 553 - Energy Systems Mgmt/Auditing Credit Hours: 3
- REE 573 - Energy-Efficient Bldg Design Credit Hours: 3

Energy Storage

- REE 581 - Energy Storage Fundamentals Credit Hours: 3
- REE 582 - Introduction to Batteries Credit Hours: 3
- REE 583 - Intro to Fuel Cells Credit Hours: 3

Fuel Cell Systems

Geothermal Energy

Global Energy Issues

Hydro Power Systems and Integration

Photovoltaic Systems and Processes

- REE 525 - Solid-State Physics/Photov Mat Credit Hours: 3

- REE 545 - Applied Photovoltaics Credit Hours: 3
- REE 565 - Semiconductor Process Enginrng Credit Hours: 3

Research Methods and Innovation

- ENGR 511 - Res Meth & Innov: Intel Prop Credit Hours: 4
- ENGR 512 - Res Meth & Innov: Res Meth Credit Hours: 4
- ENGR 513 - Res Meth & Innov: Strat & Inno Credit Hours: 4

Wind Power Systems and Integration

Robotics, Autonomous Systems, and Control Engineering, BS Dual Major

Degree Requirements

A dual major in Robotics, Autonomous Systems, and Control Engineering requires 91 credits in automation and other engineering coursework. Many of these course credits may be used to meet requirements in the primary major; depending upon selection of primary major it is estimated that only 28-36 additional credits will be needed beyond the primary major requirements. The capstone project required in the student's primary major is expected to incorporate elements from both the primary and the Robotics, Autonomous Systems, and Control Engineering majors. Since the required courses for Robotics, Autonomous Systems, and Control Engineering must be taken along with those for the primary major, a full curriculum map is not provided. Students should carefully plan each term in consultation with their primary major advisor and with their Robotics, Autonomous Systems, and Control Engineering advisor. To obtain a dual major in Robotics, Autonomous Systems, and Control Engineering, students must complete the courses required for the Bachelor of Science degree in their primary engineering major as well as the following list of specialized Robotics, Autonomous Systems, and Control Engineering courses:

Electrical Engineering and Computer Science Requirements

- CST 116 - C++ Programming I Credit Hours: 4
- EE 131 - Digital Electronics I Credit Hours: 4
- EE 133 - Digital Electronics II Credit Hours: 4
- EE 221 - Circuits I Credit Hours: 4
- EE 223 - Circuits II Credit Hours: 4
- EE 225 - Circuits III Credit Hours: 4
- EE 333 - Intro to Microcontrollers Credit Hours: 4
- EE 430 - Linear Sys & Digital Signal Credit Hours: 5
- ENGR 267 - Engineering Programming Credit Hours: 3

Total: 36 Credit Hours

Robotics, Autonomous Systems, and Control Engineering Major Core

- EE 461 - Control Engineering I: Classical Methods Credit Hours: 4
- ENGR 461 - Modeling and Simulation of Dynamic Systems Credit Hours: 4
- ENGR 462 - Control Engineering II: Modern Methods Credit Hours: 4
- ENGR 463 - Motion Control in Mechanisms and Robotics Credit Hours: 4
- ENGR 464 - Autonomous Systems Credit Hours: 4

- REE 463 - Energy Systems Instrumentation Credit Hours: 3

Total: 23 Credit Hours

Supporting Engineering Requirements

- ENGR 211 - Engineering Mechanics: Statics Credit Hours: 4
- ENGR 212 - Engineering Mech: Dynamics Credit Hours: 3
- ENGR 355 - Thermodynamics Credit Hours: 3
- MECH 318 - Fluid Mechanics Credit Hours: 4
- MECH 323 - Heat Transfer I Credit Hours: 3
- REE 243 - Electrical Power Credit Hours: 4
- REE 253 - Electromech Energy Conversion Credit Hours: 3
- SEM 421 - Systems Engineering Credit Hours: 4
- SEM 422 - Advanced Systems Engineering Credit Hours: 4

Total: 32 Credit Hours

Systems Engineering and Technical Management, BS Dual Major

Degree Requirements

To obtain a dual major in Systems Engineering & Technical Management, students must complete the courses required for the Bachelor of Science degree in their primary engineering major, as well as the dual major requirements listed below. Some of these courses may be used to meet requirements in the primary major also.

SE Major Core Requirements

- SEM 421 - Systems Engineering Credit Hours: 4
- SEM 422 - Advanced Systems Engineering Credit Hours: 4
- SEM 425 - Advanced Engineering Mgmt Credit Hours: 4

Mathematics Requirements

- MATH 321 - Appl Diff Equation I Credit Hours: 4
- MATH 341 - Linear Algebra I Credit Hours: 4

- MATH 465 - Mathematical Statistics Credit Hours: 4
  or
- MATH 362 - Statistical Methods II Credit Hours: 4

Systems Electives

[Select 9 credit hours from the following electives or advisor approved Elective courses]

- EE 430 - Linear Sys & Digital Signal Credit Hours: 5
- EE 432 - Advanced Digital System Design Credit Hours: 4
- EE 401 - Communication Systems Credit Hours: 5

- CST 236 - Engineering for Quality Software Credit Hours: 4
- CST 316 - JR Team-Based Proj Dev I Credit Hours: 4
- CST 324 - Database Systems and Design Credit Hours: 4
- MFG 447 - Lean Manufacturing Credit Hours: 3
- MIS 311 - Intro to Systems Analysis Credit Hours: 3
- MIS 341 - Relational Database Design I Credit Hours: 4
- MIS 375 - Decision Support Systems Credit Hours: 3

Management Electives

[Select 9 credit hours from the following electives or advisor approved elective courses]

- BA 213Z - Principles of Managerial Accounting Credit Hours: 4
- BUS 223 - Marketing I Credit Hours: 3
- BUS 226 - Business Law Credit Hours: 3
- BUS 304 - Engineering Management Credit Hours: 3
- BUS 308 - Prin of International Business Credit Hours: 3
- MGT 321 - Operations Management Credit Hours: 3
- MGT 345 - Engineering Economy Credit Hours: 3
- MGT 461 - Lean/Six Sigma Management I Credit Hours: 3
- MGT 462 - Lean/Six Sigma Management II Credit Hours: 3
- MGT 463 - Lean/Six Sigma Management III Credit Hours: 3

Total for a B.S. (Dual) in Systems Engineering and Technical Management: 42 Credit Hours

Note:

Many courses may be part of the primary major.

Systems Engineering, Graduate Certificate

The Graduate Certificate in Systems Engineering will provide students with the skills needed for a growing number of jobs in the aerospace, energy, government, automotive, semiconductor, and other engineering related industries. The four courses required for the proposed certificate total 15 credits and may be completed in one academic year.

Required Courses (15 credits)

- ENGR 596 - Grad Research & Development Credit Hours: 3
- SEM 521 - Systems Engineering Credit Hours: 4
- SEM 522 - Advanced Systems Engineering Credit Hours: 4
- SEM 525 - Advanced Engineering Mgmt Credit Hours: 4

Applied Computing & Geomatics Department

Stephan Andreai, *Interim Department Chair*
Professor: S. Lee

Degree Offered

- Bachelor of Science in Geomatics with options in:
    - Surveying
    - Geographic Information Systems

The department is now offering both of these degrees fully online; some courses may need to be transferred depending on current course availability. As the land surveying option prepares students to pass the Fundamentals of Surveying (FS) examination and pursue licensure as a registered Professional Land Surveyor (PLS), applicants to the online Surveying option must be a surveyor actively working in the field under the supervision of a licensed surveyor. In addition, the department chair and faculty advisor may consider an exception to the employment requirement.

Minors Offered

- Geographic Information Systems
- Surveying

Geomatics is the modern profession encompassing the disciplines of surveying, mapping, engineering, and geoscience. Geomatics employs an integrated approach to the measurement, analysis, presentation, and management of geospatial data. Geospatial data is obtained from a variety of sources including ground-based instruments, mobile mapping technologies, drones, hydrographic, and earth-orbiting satellite systems. Geospatial data is used to create a detailed but understandable picture of the Earth's physical features. This data enables the design and development of land administration systems for sustainable planning and management of the built environment. Geospatial data is a critical component of addressing climate change.

Geomatics provides the opportunity to work primarily outdoors, exclusively in an office, or in some combination of the two. Geomatics attracts individuals who enjoy mathematics, history, making maps, using advanced software and high-tech instruments. Career employment is available in rural and urban areas throughout the nation.

The United Nations has adopted its first resolution, *A Global Geodetic Reference Frame for Sustainable Development*, recognizing the importance of a globally coordinated approach to geodesy – the geomatics discipline focused on accurately measuring the shape, rotation, and gravitational field of the earth.

Students within the Geomatics Program must choose between either an option in Surveying or Geographic Information Systems (GIS). Students may, with consent of their advisor, complete both options.

Program Learning Outcomes

1. an ability to identify, formulate, and solve broadly-defined technical or scientific problems by applying knowledge of mathematics and science and/or technical topics to areas relevant to the discipline;

2. an ability to formulate or design a system, process, procedure or program to meet desired needs;

3. an ability to develop and conduct experiments or test hypotheses, analyze and interpret data and use scientific judgement to draw conclusions;

4. an ability to communicate effectively with a range of audiences;

5. an ability to understand ethical and professional responsibilities and the impact of technical and/or scientific solutions in global, economic, environmental, and societal contexts;

6. an ability to function effectively on teams that establish goals, plan tasks, meet deadlines, and analyze risk and uncertainty.

Student Preparation

It is recommended that students prepare for entrance into the program by emphasizing mathematics and science in high school. Two years of algebra and one year each of geometry, trigonometry and physics are desirable prerequisites.

Bachelor of Science in Geomatics, Surveying Option

The department offers a nationally-recognized professional degree program that prepares students for employment within the geomatics profession and licensure as a Professional Land Surveyor (PLS). Students enjoy small classes taught by licensed professionals that emphasize fundamental theory and problem solving in a computer-intensive curriculum. Field laboratory experiences integrated throughout the curriculum provide practical skills, and offer extensive opportunities to prepare students to work in teams using state-of-the art technology. Upon completing the freshman year, students often have enough experience to obtain summer employment as a survey crew member.

Completion of the program qualifies graduates to take the Fundamentals of Surveying (FS) exam during the spring term of the senior year. The broad-based nature of the curriculum ensures that graduates will be prepared to fulfill both the traditional and contemporary roles of the profession.

Cooperative Education

Geomatics students may, upon completion of the freshman year, apply for student career experience programs (Pathways) with the U.S. Bureau of Land Management, Bonneville Power Administration, U.S. Forest Service, or other appropriate federal employers. Work experiences are paid and may be for three or six month periods. Students may earn two or four credits for work experience periods. A maximum of four credits may be applied toward the bachelor's degree.

Geomatics students are also eligible for the Civil Engineering Cooperative Program (CECOP), offering high-quality, paid industrial experience and related academic activities while students pursue their degree. The Oregon State Board of Examiners for Engineering and Land Surveying (OSBEELS) counts this internship time toward PLS licensure requirements.

Scholarships

Approximately 40 scholarships are available to geomatics students each year through an endowed Geomatics Department Scholarship, CLSA, PLSO, LSAW, WESTFED, NSPS, and other organizations.

Career Opportunities

The employment forecast for graduates in this field is exceptional. As an increasing number of licensed surveyors across the nation retire, a personnel shortage has been created within the geomatics profession. Graduates are prepared for a wide variety of career opportunities in the fields of surveying, engineering, construction, remote sensing, GIS, and land information management.

Accreditation

The Geomatics Program (surveying option) is accredited by the Applied and Natural Science Accreditation Commission (ANSAC) of ABET, Inc., http://www.abet.org. ABET is a specialized accrediting board recognized by the Council for Higher Education and/or the Secretary of the U.S. Department of Education.

Bachelor of Science in Geomatics, Geographic Information Systems (GIS) Option

Geographic Information Systems (GIS) is a systematic approach to the mangagement, analysis, and display of geospatial information. Management of such information requires application of advanced database skills, the ability to see a project through to completion, and fundamental project management skills. The analysis of geodata sets is predicated on a firm understanding of geospatial reference/coordinate systems, topological relationships, and statistical methods. Techniques for displaying geospatial information take various forms such as maps, geographic data sets, and data models. Students graduating from this course of study will understand how to manipulate geospatial data to solve political, economic, engineering, and ecological problems and how to use and create online resources to effectively communicate their results.

Students learn in a project-based environment to manage the flow of data through the project in terms of data acquisition, processing, analysis, and presentation. Within the GIS option, students may select individual areas of focus based on independent study and/or online courses.

Career Opportunities

The list of opportunities for students in the field of GIS is continuing to show substantial growth. As our society becomes more data centered, the importance of understanding the spatial location of this data and its geospatial relationship to other data is becoming increasingly apparent. Understanding such geospatial relationships is fundamental to areas such as health care, land records management, transportation modeling, environmental engineering/science, and urban planning, to name only a few. Local, state, and federal agencies are embracing GIS more each year as these agencies realize that GIS is the appropriate tool to solve long-standing geospatial problems. Private industry is also embracing GIS since it can be used to streamline delivery and/or response routes. Both private and public entities have also realized that GIS provides an excellent decision support framework structure.

Geographic Information Systems Minor

The Geographic Information Systems (GIS) minor is open to all majors and is especially recommended for students majoring in Geomatics (Surveying Option), Environmental Sciences, Business/Management/Information Systems, Computer Software Engineering, Data Science, and Population Health Management. The minor provides the essential kernel of knowledge and skill necessary to approach geospatial issues pertaining to these disciplines. An advisor in the Geomatics Department must approve any substitution of courses from those listed. Preparation for this course of study entails a functional level of computer literacy that can be evaluated in consultation with an advisor. Students must also have successfully completed MATH 111Z prior to enrolling in upper-division classes.

The Minor in Geographic Information Systems (GIS) acknowledges the achievement of 20 credits taken from the following GIS course listing.

Requirements of Minor

- GIS 103 - The Digital Earth Credit Hours: 3
- GIS 134 - Geographic Information Systems Credit Hours: 3

Elective Courses: 14 Credits Required

- GIS 205 - Mobile and Web GIS Credit Hours: 3
- GIS 306 - Geospatial Raster Analysis Credit Hours: 4
- GIS 316 - Geospatial Vector Analysis Credit Hours: 4
- GIS 332 - Python for Geospatial Analysis Credit Hours: 3
- GIS 407 - Seminar Credit Hours: 4
- GIS 426 - Geospatial Vector Analysis II Credit Hours: 4
- GIS 432 - Customizing the GIS Envirn II Credit Hours: 4

- GIS 446 - GIS Database Development Credit Hours: 2

Geographic Information Systems, Certificate

The Online Certificate in Geographic Information Systems program does not require any experience in GIS. The Online Certificate in Geographic Information Systems program allows students to build their own track. Except for GIS 134 (required course), other courses are elective. Students will complete weekly assignments using their own computer (Recommend Windows system). Students will communicate with their classmates and instructors via email or Canvas discussion board. The Online Certificate in Geographic Information Systems program will operate during Fall, Winter, and Spring terms. Students can begin any of these terms. Students can earn the GIS certificate as quickly as 9 months. **Students must complete 18 credits to complete the certificate.**

Required Core Course

- GIS 134 - Geographic Information Systems Credit Hours: 3

100 Level Elective Course

- GIS 103 - The Digital Earth Credit Hours: 3

200 Level Elective Course

- GIS 205 - Mobile and Web GIS Credit Hours: 3

300 Level Elective Courses

- GIS 306 - Geospatial Raster Analysis Credit Hours: 4
- GIS 316 - Geospatial Vector Analysis Credit Hours: 4
- GIS 332 - Python for Geospatial Analysis Credit Hours: 3

400 Level Elective Courses

- GIS 426 - Geospatial Vector Analysis II Credit Hours: 4
- GIS 435 - Remote Sensing II Credit Hours: 4
- GIS 446 - GIS Database Development Credit Hours: 2

Geomatics, Geographic Information Systems (GIS) Option, BS

Degree Requirements

A minimum of 180 term hours must be completed for the GIS option, of which 80 term hours must be in the GIS and geomatics area. A minimum of 180 term hours must be completed for the GIS option.

Curriculum

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- GIS 103 - The Digital Earth Credit Hours: 3
- GME 161 - Plane Surveying I Credit Hours: 4
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

Winter

- CE 203 - Engineering Graphics Credit Hours: 3
- GIS 134 - Geographic Information Systems Credit Hours: 3
- GME 175 - Computations and Platting Credit Hours: 3
- MATH 112Z - Precalculus II: Trigonometry Credit Hours: 4
- Social Science Elective Credit Hours: 3

Spring

- GIS 205 - Mobile and Web GIS Credit Hours: 3
- GME 162 - Plane Surveying II Credit Hours: 4
- MATH 251 - Differential Calculus Credit Hours: 4
- MIS 275 - Intro to Relational Databases Credit Hours: 4

Sophomore Year

Fall

- GIS 306 - Geospatial Raster Analysis Credit Hours: 4
- GME 241 - Boundary Law I Credit Hours: 3
- MATH 252 - Integral Calculus Credit Hours: 4
- MIS 118 - Intro to Programming in C# Credit Hours: 4

Winter

- GIS 316 - Geospatial Vector Analysis Credit Hours: 4
- GME 242 - Land Descrip & Cadastre Credit Hours: 2
- MATH 254 - Vector Calculus I Credit Hours: 4
- MIS 218 - Intermediate Programming in C# Credit Hours: 4

Spring

- BUS 226 - Business Law Credit Hours: 3
- MATH 361 - Statistical Methods I Credit Hours: 4

- MGT 345 - Engineering Economy Credit Hours: 3
- COM 111Z - Public Speaking Credit Hours: 4
  Social Science Elective Credit Hours: 3

Junior Year

Fall

- GIS 332 - Python for Geospatial Analysis Credit Hours: 3
- SPE 321 - Small Group/Team Comm Credit Hours: 3
- PHY 221 - General Physics w/Calculus Credit Hours: 4
- WRI 227Z - Technical Writing Credit Hours: 4

Winter

- GIS 435 - Remote Sensing II Credit Hours: 4
- Math Elective Credit Hours: 3 [a]
- MIS 341 - Relational Database Design I Credit Hours: 4
- PHY 222 - General Physics w/Calculus Credit Hours: 4

Spring

- GIS 426 - Geospatial Vector Analysis II Credit Hours: 4
- MIS 442 - Adv Database App Programming Credit Hours: 4
- Humanities Elective Credit Hours: 3
- Social Science Elective Credit Hours: 3

Senior Year

Fall

- BUS 304 - Engineering Management Credit Hours: 3
- GIS 446 - GIS Database Development Credit Hours: 2
- GME 425 - Remote Sensing Credit Hours: 4
- GME 451 - Geodesy Credit Hours: 4
- Social Science Elective Credit Hours: 3

Winter

- GME 455 - GNSS Surveying for GIS Credit Hours: 4
- Science Elective Credit Hours: 4
- GME 452 - Map Projections Credit Hours: 3
- Humanities Elective Credit Hours: 3
- Science Elective Credit Hours: 4

Spring

- GME 468 - Geomatics Practicum Credit Hours: 2

- WRI 327 - Advanced Tech Writing Credit Hours: 3
- Business Elective Credit Hours: 3 (upper-division) [b]
- Humanities Elective Credit Hours: 3
- Science Elective Credit Hours: 4

Note:

Humanities and Social Science Electives must be approved by the department.

Total for a B.S. in Geomatics, Geographic Information Systems Option: 180 Credit Hours

[a] Students must demonstrate advancement in educational content, courses must not be lower level than courses in the required curriculum. MATH 341 or MATH 362 recommended
[b] BUS 356 recommended

Geomatics, Surveying Option, BS

Degree Requirements

A minimum of 180 term hours must be completed for the Surveying option, of which 80 term hours must be in the GIS and geomatics area. A minimum of 180 term hours must be completed for the GIS option, of which 74 term hours must be in the GIS and geomatics area.

Curriculum

Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- GIS 103 - The Digital Earth Credit Hours: 3
- GME 161 - Plane Surveying I Credit Hours: 4
- MATH 112Z - Precalculus II: Trigonometry Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

Winter

- CE 203 - Engineering Graphics Credit Hours: 3
- GIS 134 - Geographic Information Systems Credit Hours: 3
- GME 175 - Computations and Platting Credit Hours: 3
- GME 264 - Digital Design for Surveying Credit Hours: 2
- MATH 251 - Differential Calculus Credit Hours: 4

Spring

- GIS 205 - Mobile and Web GIS Credit Hours: 3
- GME 162 - Plane Surveying II Credit Hours: 4

- MATH 252 - Integral Calculus Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4

Sophomore Year

Fall

- GME 163 - Route Surveying Credit Hours: 4
- GME 241 - Boundary Law I Credit Hours: 3
- MATH 254 - Vector Calculus I Credit Hours: 4
- PHY 221 - General Physics w/Calculus Credit Hours: 4

Winter

- GME 242 - Land Descrip & Cadastre Credit Hours: 2
- PHY 222 - General Physics w/Calculus Credit Hours: 4
- WRI 227Z - Technical Writing Credit Hours: 4
  Social Science Elective Credit Hours: 6

Spring

- GME 372 - Subdiv'n Planning and Platting Credit Hours: 3
- MATH 361 - Statistical Methods I Credit Hours: 4
- PHY 223 - General Physics w/Calculus Credit Hours: 4
- Humanities Elective Credit Hours: 6

Junior Year

Fall

- GIS 306 - Geospatial Raster Analysis Credit Hours: 4
- GME 343 - Boundary Surveys Credit Hours: 4
- MIS 113 - Intro to Database Systems Credit Hours: 3
- WRI 327 - Advanced Tech Writing Credit Hours: 3

Winter

- GIS 316 - Geospatial Vector Analysis Credit Hours: 4
- GME 466 - Boundary Law II Credit Hours: 3
- SPE 321 - Small Group/Team Comm Credit Hours: 3
- ENV/GIS/GME Elective Credit Hours: 4
- Math Elective Credit Hours: 3[a]

Spring

- BUS 226 - Business Law Credit Hours: 3
- GME 351 - Constr/Engr Surveying Credit Hours: 3
- MGT 345 - Engineering Economy Credit Hours: 3

- GME 444 - Adjustment by Least Squares Credit Hours: 4

Senior Year

Fall

- BUS 304 - Engineering Management Credit Hours: 3
- GME 425 - Remote Sensing Credit Hours: 4
- GME 451 - Geodesy Credit Hours: 4
- MIS 118 - Intro to Programming in C# Credit Hours: 4

Winter

- GME 452 - Map Projections Credit Hours: 3
- GME 454 - GNSS Surveying Credit Hours: 4
- Science Elective Credit Hours: 4
- Social Science Elective Credit Hours: 6

Spring

- GME 468 - Geomatics Practicum Credit Hours: 2
- Business Elective Credit Hours: 3
- Humanities Elective Credit Hours: 3
- Science Elective Credit Hours: 4[b]

Note:

Humanities and Social Science Electives must be approved by the department.

Total for a B.S. in Geomatics, Surveying Option: 180 Credit Hours

[a] Students must demonstrate advancement in educational content, courses must not be lower level than courses in the required curriculum. MATH 341 or MATH 362 recommended

[b] GEOL 201 recommended

Surveying Minor

The Surveying minor is open to all engineering majors, and is especially recommended for students majoring in Civil Engineering and Geomatics (GIS option). The minor provides the essential knowledge and skills which meet OSBEELS requirements (OAR 820-010-0226) allowing engineering students to sit for the Fundamentals of Surveying (FS) examination, and pursue licensure as a Professional Surveyor (PS). An advisor in the Geomatics Department must approve substitution of courses from those listed.

The Minor in Surveying acknowledges the achievement of 27 credits taken from the following geomatics course listing.

Requirements of Minor

- GIS 134 - Geographic Information Systems Credit Hours: 3 [c]
- GME 162 - Plane Surveying II Credit Hours: 4 [c,d]
- GME 241 - Boundary Law I Credit Hours: 3 [c]
- GME 242 - Land Descrip & Cadastre Credit Hours: 2 [c]
- GME 264 - Digital Design for Surveying Credit Hours: 2 [a]
- GME 343 - Boundary Surveys Credit Hours: 4

Elective Courses: 8 Credits Required

- GME 163 - Route Surveying Credit Hours: 4
- GME 351 - Constr/Engr Surveying Credit Hours: 3 [b]
- GME 372 - Subdiv'n Planning and Platting Credit Hours: 3
- GME 425 - Remote Sensing Credit Hours: 4 [c]
- GME 444 - Adjustment by Least Squares Credit Hours: 4
- GME 451 - Geodesy Credit Hours: 4 [c]
- GME 452 - Map Projections Credit Hours: 3 [c]
- GME 455 - GNSS Surveying for GIS Credit Hours: 4 [c]
- GME 466 - Boundary Law II Credit Hours: 3

Notes:

[a] CIV 415 will substitute for GME 264
[b] CE 351 will substitute for the GME 163 prerequisite
[c] Required course for GIS majors
[d] MATH 221 will substitute for the prerequisite

Management Department

Sonja H. Bickford, *Department Chair*

Professors: H. Neupert
Associate Professors: C. Morgan, K. Weidman
Assistant Professors: D. DaSaro, J. Emard, G. Lomprey, R. Sahay, M. Singh

Instructor: S. Beaudry

Degrees Offered

- Bachelor of Science in Business, with options in:
  - Management
  - Marketing
- Bachelor of Science in Cybersecurity
- Bachelor of Science in Health Care Management, with options in:
  - Administration
  - Clinical
  - Radiologic Science Management
- Bachelor of Science in Health Informatics
- Bachelor of Science in Information Technology

- Bachelor of Science in Operations Management
- Bachelor of Applied Science in Technology and Management

Minors Offered

- Business
- Health Informatics
- Information Technology
- Innovation & Entrepreneurship
- International Business

Specializations Offered

- Management
- Marketing

Emphases Offered

- Six Sigma Green Belt Certification
- Renewable Energy Management

The Management Department's tech-infused degrees empower graduates through innovative, hands-on, and multi-disciplinary learning experiences, and prepares students to take their place as leaders and managers in contemporary public and private organizations. Faculty members have been selected for their managerial experience and expertise in a diverse array of production and service industries.

Coursework in the Management programs builds upon foundational core courses including management, marketing, accounting, finance, information technology, economics, ethics, globalization, business law, and business presentations. These courses, along with program-specific courses, prepare students for their senior year which includes a senior experience and a capstone course. The senior experience provides management students with an opportunity to integrate and synthesize their educational experience within the context of a "real-world" business problem or project.

As a result of this unique combination of resources and coursework, the Management degree programs remain vital and up to date, providing students with both the technical tools of management and the interpersonal skills that employers most desire. Equally important, each graduate will be poised to positively contribute to society as well as to today's culturally diverse, global workplace.

Department Learning Outcomes

Upon graduating, Management Department graduates should be able to:

1. Apply core concepts in a business environment.
2. Apply the legal, social, ethical, and economic environments of business in a global context.
3. Contribute to the development of a team-oriented and collaborative environment.
4. Solve business problems using decision-support tools and/or research skills.
5. Demonstrate professional communication skills using a variety of delivery methods.
6. Analyze business concepts and apply strategic planning skills to effect change in an integrated manner.

Degree Completion and Co-enrollment at Community Colleges

The Management Department, in partnership with many Oregon community colleges, offers joint enrollment, transfer credit (articulation) agreements and course sequences so that students may complete a degree with coursework taken from multiple institutions. See the Oregon Tech Registrar Office's website, or a Management Department faculty advisor for additional information.

Oregon Tech Online

Many of the management degrees and core management courses are available online to facilitate the needs of degree completion students. Online courses are particularly appropriate for students capable of self-directed educational activities. Online degrees and courses are offered utilizing Internet delivery and collaborative learning. Degrees available online are: BS in Business, Management Option, BS in Health Care Management, Administration Option, Clinical Option, and Radiologic Sciences Management Option; BS in Operations Management; BS in Health Informatics; BS in Information Technology; BAS in Technology and Management.

Required Student Equipment

Successful completion of these degrees requires intensive, hands-on use of computers.

Therefore, all students are required to own their own computer. Financial aid may be available to help defray the cost of this equipment. Please consult the Financial Aid Office at Oregon Tech.

Note: The Portland-Metro campus is a laptop-required campus. Laptop specifications, financial aid, and helpful instructions may be found at http://www.oit.edu/portland-metro/college-costs/bring-your-own-device.

Accreditation

Oregon Tech has received specialized accreditation for its business programs through the International Accreditation Council for Business Education (IACBE).

Accounting

Degree Offered

- Bachelor of Science in Accounting

Objectives

The BS in Accounting is designed to prepare students for careers in public or private accounting. Students become familiar with computerized accounting applications and skilled in the principles of tax, financial, and cost accounting. Internship opportunities are available during the senior year. Students will complete a capstone course and a senior project. Upon graduation students should have sufficient knowledge to sit for the Certified Public Accountant (CPA) and the Certified Management Accountant (CMA) exams.

The BS in Accounting is offered in Klamath Falls.

Program Learning Outcomes

Upon graduating, Accounting graduates should be able to:

1. Integrate GAAP in financial reporting and analysis.
2. Demonstrate taxation compliance and planning.
3. Apply assurance concepts.
4. Apply managerial accounting concepts.

Career Opportunities

Many students take the CPA and CMA exams upon graduating, go on to graduate school, and/or find employment in this continuously growing, stable and in-demand career field. Job titles include certified public accountant, financial analyst, accountant, tax preparer.

Student Preparation and Admissions

Students must meet Oregon Tech general admissions requirements. Transfer students must arrange for official transcripts from each college and university attended to be sent to Oregon Tech.

Business

Degree Offered

- Bachelor of Science in Business, with options in:
    - Management
    - Marketing

Objectives

The BS in Business prepares leaders to manage organizations in the high technology environments of the 21st century. Students develop their abilities to contribute to an organization's performance through hands-on experience built on a solid theoretical base. The Business curriculum skillfully integrates technology-enhanced coursework with a solid core of business courses. Internship opportunities are available during the senior year. Students will complete a capstone course and a senior project. Students will also be prepared for graduate level education, such as the Master's in Business Administration (MBA) degree.

The BS in Business - Management option is offered in Klamath Falls, Portland-Metro, and through Oregon Tech Online. The BS in Business - Marketing option is offered in Klamath Falls.

Program Learning Outcomes

Upon graduating, Business-Management graduates should be able to:

1. Apply business strategies to plan for achieving specific goals in an organization based on analysis of internal and external factors.

Upon graduating, Business-Marketing graduates should be able to:

1. Analyze an organization's activities to develop/implement a marketing strategy.

Career Opportunities

The BS in Business develops graduates with relevant skills preparing students for entry into careers in business, government, public, or social service organizations.

Job titles include business unit manager, supervisor, marketing specialist, sales manager, marketing researcher, business analyst, and human resource manager.

Student Preparation and Admissions

Students must meet Oregon Tech general admissions requirements. Transfer students must arrange for official transcripts from each college and university attended to be sent to Oregon Tech.

Cybersecurity

Degree Offered

- Bachelor of Science in Cybersecurity

Objectives

The BS in Cybersecurity provides students with the knowledge and skills necessary to competently scan, assess, report, and mitigate cybersecurity threats, vulnerabilities, and exploits on information systems and technology. A graduate of the BS in Cybersecurity program is prepared to assess the security needs of computer and network systems, recommend safeguard solutions, and manage the implementation and maintenance of security devices, systems, and procedures. Includes instruction in computer architecture, scripting, systems analysis, networking, cryptography, security system design, applicable law and regulations, risk assessment and policy analysis, contingency planning, user access issues, investigation techniques, and troubleshooting. Internship opportunities are available during the senior year. Students will complete a capstone course and a senior project.

The BS in Cybersecurity is offered in Klamath Falls and Portland-Metro.

Program Learning Outcomes

Upon graduating, Cybersecurity graduates should be able to:

1. Describe the tactics, techniques, and procedures used throughout the vulnerability assessment process.
2. Evaluate risk in information systems and apply mitigation techniques to reduce impact to business operations.
3. Perform information system vulnerability scanning and report findings.
4. Identify information system exploits and apply proper incident response.

Career Opportunities

The BS in Cybersecurity develops graduates with relevant skills preparing students for entry into careers in business, government, public, or social service organizations.

Job titles include IT security specialist, information security analyst and intelligence analyst.

Student Preparation and Admissions

Students must meet Oregon Tech general admissions requirements. Transfer students must arrange for official transcripts from each college and university attended to be sent to Oregon Tech.

Note: The Portland-Metro campus is a laptop-required campus. Laptop specifications, financial aid, and helpful instructions may be found at http://www.oit.edu/portland-metro/college-costs/bring-your-own-device.

Health Care Management

Degree Offered

- Bachelor of Science in Health Care Management with options in:
  - Administration
  - Clinical
  - Radiologic Sciences Management

Objectives

The BS in Health Care Management prepares graduates for a variety of career options in the rapidly growing health care industry, where health service managers are in high demand. Students will learn the knowledge and skills necessary to become effective managers of health systems and operations and will be prepared to assume managerial positions in hospitals, medical clinics, and medical practices. Health care managers plan, direct, and coordinate medical and health services; and might manage an entire facility, a specific clinical area or department, or a medical practice for a group of providers. Internship opportunities are available during the senior year. Students will complete a capstone course and a senior project. Oregon Tech's Health Care Management degree includes three options to meet the student's specific needs and interests.

The BS in Health Care Management is offered in Klamath Falls, Portland-Metro, and through Oregon Tech Online.

Program Learning Outcomes

Upon graduating, Health Care Management graduates should be able to:

1. Interpret health policy and systems.
2. Assess the sustainability of healthcare organizations.

Student Preparation and Admissions

Students must meet the standard Oregon Tech admission requirements. Transfer students must arrange for official transcripts from each college and university attended to be sent to Oregon Tech.

For the Health Care Management, Clinical Option

Students must provide documentation of a current state and/or national registry, license, or certificate in an approved allied health field. Each prospective student's academic credits and registry, license, or certificate will be individually evaluated to determine transferability and acceptability of the coursework.

For the Health Care Management, Radiologic Science Management Option

Students must be registered through the ARRT and be in good standing.

Health Informatics

Degree Offered

- Bachelor of Science in Health Informatics

Objectives

Health Informatics is a rapidly developing scientific field that utilizes computer technology to improve the quality and safety of patient care. This program incorporates the sub disciplines of clinical and computational informatics; emphasizing the integration of computer science and the impact of clinical outcomes. Internship opportunities are available during the senior year. Students will complete a capstone course and a senior project.

The BS in Health Informatics is offered in Klamath Falls, Portland-Metro, and through Oregon Tech Online.

Program Learning Outcomes

Upon graduating, Health Informatics graduates should be able to:

1. Interpret health systems and policy.
2. Design and implement information systems.
3. Apply statistical concepts to analyze data.

Career Opportunities

Health Informatics professionals work as quality managers, business intelligence and epic analyst/developers, data analysts, data scientists, and in health care information technology positions. These professionals are called upon to design and use emerging information technologies with the goal of helping providers and patients access and utilize information to provide improved health care.

Health Informatics professionals provide support in clinical decision making, data architecture, application interfacing, clinical analytics, data analysis, systems analysis, and project management.

Student Preparation and Admissions

Students must meet Oregon Tech general admissions requirements. Transfer students must arrange for official transcripts from each college and university attended to be sent to Oregon Tech.

Note: The Portland-Metro campus is a laptop-required campus. Laptop specifications, financial aid, and helpful instructions may be found at http://www.oit.edu/portland-metro/college-costs/bring-your-own-device.

Information Technology

Degree Offered

- Bachelor of Science in Information Technology

Objectives

Information Technology powers modern business. This field is interdisciplinary, with applications to all aspects of the economy. Students solve real-world business problems and gain critical skills and hands-on experience in networking, server administration, programming, databases, information security, and systems analysis. Graduating students are prepared to bridge the technology and management disciplines in their organizations. Internship opportunities are available during the senior year. Students will complete a capstone course and a senior project.

The BS in Information Technology is offered in Klamath Falls, Portland-Metro, and through Oregon Tech Online.

Program Learning Outcomes

Upon graduating, Information Technology graduates should be able to:

1. Solve business problems using information systems and technology.
2. Design and implement information systems.

Career Opportunities

The BS in Information Technology prepares students for a wide range of professions including accounting information systems, database administration, systems analyst, business systems consultant, network analyst, software applications specialist, PC support technician, technical writer, Web administrator and vendor representative for either hardware- or software-based firms. Equipped with both technical skills and business understanding, Information Technology graduates are uniquely prepared for faster advancement than many of their contemporaries.

Student Preparation and Admissions

Students must meet Oregon Tech general admissions requirements. Transfer students must arrange for official transcripts from each college and university attended to be sent to Oregon Tech.

Note: The Portland-Metro campus is a laptop-required campus. Laptop specifications, financial aid, and helpful instructions may be found at http://www.oit.edu/portland-metro/college-costs/bring-your-own-device.

Operations Management

Degree Offered

- Bachelor of Science in Operations Management

Objectives

Operations Managers coordinate equipment, materials, human capital, and information across businesses to profitably meet or exceed customer expectations. Students in Operations Management successfully blend the art of management with applied science through creativity, people skills, rational analysis, and application of technology.

Operations Management students develop mastery of concepts, tools, and skills in management sciences and specialties tailored to the industries of interest to the student. Particular emphasis is directed toward development of skills in problem solving, project management, communication, and managing effectively in team-based work environments. Students are also prepared for graduate level education, such as the MBA (Master's in Business Administration) degree. Internship opportunities are available during the senior year. Students will complete a capstone course and a senior project.

The BS in Operations Management is offered in Klamath Falls, Portland-Metro, and through Oregon Tech online.

Program Learning Outcomes

Upon graduating, Operations Management graduates should be able to:

1. Apply knowledge of fundamental concepts of operations management.
2. Apply knowledge of approaches to operational performance improvement.

Career Opportunities

The BS in Operations Management prepares students for leadership positions within a wide variety of product and service industries. Initial job titles include: production planner, inventory control analyst, industrial engineer, production supervisor, and quality control manager. Typical departments in which graduates find themselves working are manufacturing, manufacturing engineering, industrial engineering, production control, finance, and quality assurance.

Upon graduation, students should be prepared to address critical issues related to productivity management in a global competitive economy and apply leadership roles in the design and implementation of quality control and management programs. They will have mastered a wide array of microcomputer technology and software applications, giving them a competitive edge in the job market.

Student Preparation and Admissions

Students must meet Oregon Tech general admissions requirements. Transfer students must arrange for official transcripts from each college and university attended to be sent to Oregon Tech.

Note: The Portland-Metro campus is a laptop-required campus. Laptop specifications, financial aid, and helpful instructions may be found at http://www.oit.edu/portland-metro/college-costs/bring-your-own-device.

Technology and Management

Degree Offered

- Bachelor of Applied Science in Technology and Management

Objectives

The Bachelor of Applied Science (BAS) in Technology and Management provides a path to a bachelor's degree for those students who have completed a technical Associate of Applied Science (AAS) or Associate of Science (AS) degree from an accredited institution recognized by the Council for Higher Education (CHEA) and are seeking career advancement into management or in their technical career fields. The BAS builds on a core of 60 credits of career and technical education (CTE) courses taken as part of the AAS or AS degree, adding 65 credits of business, management, and information technology courses and 55 credits of broad-based general education courses to enable the BAS graduate to advance in the workplace or continue on to graduate school. The management core includes a three-term capstone senior project to enable the student to demonstrate successful integration of technical and managerial coursework.

The BAS in Technology and Management is offered in Klamath Falls, Portland-Metro, and through Oregon Tech online.

Program Learning Outcomes

Upon graduating, Technology and Management graduates should be able to:

1. Apply knowledge of approaches to operational performance improvement.

Graduation Requirements

The BAS in Technology and Management requires 180 credits including 60 upper-division credits and up to 60 lower-division career and technical education (CTE) credits transferred from an AAS or AS degree. In addition, the BAS includes 55 general education credits including 18 credits in communication, 12 credits of social science, 9 credits in humanities, and 16 credits of math and science including 4 credits of mathematics with a prerequisite of intermediate algebra or higher and 4 credits of laboratory science.

Business Management Essentials, Certificate

The Business Management Essentials Certificate is designed to propel your career forward by helping you develop the skills needed to become a more effective manager, supervisor, team leader or project manager. The ability to lead and motivate employees is the key to success for any business. Smoothly navigating the transition from individual contributor to a leader and manager of others is more critical than ever for professional advancement in today's competitive economy.

BUS 215 must be taken as the first course in the certificate. BUS 215 is a core prerequisite to all elective course options. At least 6 credits and a maximum of 9 credits from the 200 Level Elective list. At least 6 credits from the 300 Level Elective list. **Students must complete 18 credits to complete the certificate.**

Required Core Course

- BUS 215 - Principles of Management Credit Hours: 3

200 Level Elective Courses

- BUS 223 - Marketing I Credit Hours: 3
- BUS 226 - Business Law Credit Hours: 3
- BUS 256 - Graphic Design for Business Credit Hours: 3

300 Level Elective Courses

- BUS 314 - Entrepreneurship I Credit Hours: 3
- BUS 331 - Personal Finance Credit Hours: 3
- BUS 304 - Engineering Management Credit Hours: 3
- MGT 323 - Logistics Management Credit Hours: 3
- MGT 335 - Project Management Credit Hours: 4

Business Minor

The Minor in Business recognizes the achievement of 21 to 24 credits in business and other courses related to the student's chosen profession. Some of the courses may be included in the student's requirements for a bachelor's degree from Oregon Tech. The Minor in Business may prove valuable to a technical or healthcare student who ventures into management or consulting in his or her career field. It may enhance employability and improve graduate school possibilities. This minor is open to all majors except Business, Health Care Management, Operations Management, and Technology and Management.

Requirements of Minor:

- BA 211Z - Principles of Financial Accounting Credit Hours: 4

- BUS 215 - Principles of Management Credit Hours: 3
  or
- BUS 304 - Engineering Management Credit Hours: 3
  or
- BUS 317 - Health Care Management Credit Hours: 3

- BUS 223 - Marketing I Credit Hours: 3
  or
- BUS 337 - Prin of Health Care Marketing Credit Hours: 3

- BUS 226 - Business Law Credit Hours: 3
- PSY 347 - Organizational Behavior Credit Hours: 3

Elective Courses:

- BUS 313 - Health Care Systems & Policy Credit Hours: 3
- BUS 314 - Entrepreneurship I Credit Hours: 3
- BUS 318 - Marketing II Credit Hours: 3
- BUS 349 - Human Resource Management I Credit Hours: 3
- BUS 356 - Business Presentations Credit Hours: 4
- BUS 441 - Leadership I Credit Hours: 3
- DH 465 - Independent Dental Hygiene Practice Credit Hours: 3
- MGT 321 - Operations Management Credit Hours: 3
- MGT 335 - Project Management Credit Hours: 4
- MIS 311 - Intro to Systems Analysis Credit Hours: 3

- SOC 305 - Rural Health Credit Hours: 3
  or
- SOC 335 - Hlth Inequal & Cult Competency Credit Hours: 3

- PSY 410 - Organiz Change/Develop Credit Hours: 3

Note:

A passing grade and a cumulative GPA of 2.0 or better in the business minor courses is required. Students are encouraged to consult with a Management Department advisor to select business courses that would be most applicable to their major and/or career goals.

Business Systems Management, Certificate

The online Business Systems and Management certificate enables the development of management and business competencies across a wide range of business enterprises and operations. The certificate is for individuals with business or industry experience wishing to develop skills in higher level business, management, and system operations. Those interested in a career change into the business or systems focused industry should also consider this certificate option.

BUS 215 or 304 must be taken within the first 9 credits of the certificate. At least 3 credits and a maximum of 8 credits must be taken from the 100 and 200 Level Elective list. And at least 6 credits must be taken from the 300/400 Level Elective course options list. **Students must complete 18 credits to receive the certificate.**

Core Required Course

- BUS 215 - Principles of Management Credit Hours: 3
  or
- BUS 304 - Engineering Management Credit Hours: 3

100 Level Elective Course

- GIS 134 - Geographic Information Systems Credit Hours: 3

200 Level Elective Courses

- BA 211Z - Principles of Financial Accounting Credit Hours: 4
- BUS 226 - Business Law Credit Hours: 3
- ECO 201 - Principles of Microeconomics Credit Hours: 3
- ECO 202 - Principles of Macroeconomics Credit Hours: 3
- MIS 275 - Intro to Relational Databases Credit Hours: 4
- MIS 206 - Intro to Mgmt Info Sys Credit Hours: 3

300 Level Elective Courses

- BUS 307 - Seminar Credit Hours: 16
- BUS 349 - Human Resource Management I Credit Hours: 3
- BUS 375 - Experience Business Abroad I Credit Hours: 3
- MGT 321 - Operations Management Credit Hours: 3
- MGT 322 - Supply Chain Management Credit Hours: 3
- MGT 335 - Project Management Credit Hours: 4

400 Level Elective Course

- BUS 441 - Leadership I Credit Hours: 3

Business, Management Option, BS

Students selecting the management option will equip themselves to be managers with complete understanding of all aspects of a business. This option provides students with an array of paths to build just the right business toolbox to meet their professional goals including business analytics, innovation and entrepreneurship or a customized path.

Curriculum

Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- BUS 215 - Principles of Management Credit Hours: 3
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
- Laboratory Science Elective Credit Hours: 4
- Psychology Elective Hours: 3

Total: 18 Credit Hours

Winter

- BUS 223 - Marketing I Credit Hours: 3
- ECO 201 - Principles of Microeconomics Credit Hours: 3
- MIS 102 - Spreadsheet Software Lab Credit Hours: 1
- COM 111Z - Public Speaking Credit Hours: 4
- Elective Credit Hours: 3

Total: 14 Credit Hours

Spring

- ECO 202 - Principles of Macroeconomics Credit Hours: 3
- MIS 206 - Intro to Mgmt Info Sys Credit Hours: 3
- SPE 321 - Small Group/Team Comm Credit Hours: 3
- WRI 227Z - Technical Writing Credit Hours: 4
- Humanities Elective Credit Hours: 3

Total: 16 Credit Hours

Sophomore Year

Fall

- BA 211Z - Principles of Financial Accounting Credit Hours: 4
- MATH 361 - Statistical Methods I Credit Hours: 4
  or
- STAT 243Z - Elementary Statistics I Credit Hours: 4
- MIS 113 - Intro to Database Systems Credit Hours: 3
  or
- MIS 275 - Intro to Relational Databases Credit Hours: 4
- Humanities Elective Credit Hours: 3

Total: 14/15 Credit Hours

Winter

- BUS 226 - Business Law Credit Hours: 3

- BUS 349 - Human Resource Management I Credit Hours: 3
- PHIL 331 - Ethics in the Professions Credit Hours: 3
  or
- PHIL 342 - Business Ethics Credit Hours: 3
- Program Elective Credit Hours: 3
- Math/Science Elective Credit Hours: 4

Total: 16 Credit Hours

Spring

- BA 213Z - Principles of Managerial Accounting Credit Hours: 4
- BUS 456 - Business Research Methods Credit Hours: 3
- MIS 375 - Decision Support Systems Credit Hours: 3
- Elective Credit Hours: 3
- Program Elective Credit Hours: 3

Total: 16 Credit Hours

Junior Year

Fall

- BUS 467 - Service Management Credit Hours: 3
- GIS 207 - Seminar Credit Hours: 1
- MGT 321 - Operations Management Credit Hours: 3
- MGT 421 - Quality Management Credit Hours: 3
- BUS 314 - Entrepreneurship I Credit Hours: 3

Total: 13 Credit Hours

Winter

- ACC 325 - Finance Credit Hours: 4
- BUS 307 - Seminar Credit Hours: 3
- BUS 356 - Business Presentations Credit Hours: 4
- MIS 334 - Business Analytics Credit Hours: 4
- Communication Elective Credit Hours: 3

Total: 18 Credit Hours

Spring

- BUS 390 - Applied Management Internship Credit Hours: 3
  or
- BUS Elective Credit Hours: 3
- MGT 335 - Project Management Credit Hours: 4
- Elective Credit Hours: 3

- Elective Credit Hours: 3
- Program Elective Credit Hours: 3

Total: 15 Credit Hours

Senior Year

Fall

- BUS 308 - Prin of International Business Credit Hours: 3
- BUS 441 - Leadership I Credit Hours: 3
- BUS 457 - Business Research Methods II Credit Hours: 3
- MGT 461 - Lean/Six Sigma Management I Credit Hours: 3
- BUS 480 - Capstone Experience Credit Hours: 4

Total: 15 Credit Hours

Winter

- ANTH 452 - Globalization Credit Hours: 3
  or
- HIST 452 - Globalization & Pac NW Credit Hours: 3
- BUS 480 - Capstone Experience Credit Hours: 4
- PSY 347 - Organizational Behavior Credit Hours: 3
- Elective Credit Hours: 3
- Program Elective Credit Hours: 3

Total: 15 Credit Hours

Spring

- BUS 478 - Strategic Management Credit Hours: 3
- BUS 480 - Capstone Experience Credit Hours: 4
- Elective Credit Hours: 3
- Program Elective Credit Hours: 3

Total: 12 Credit Hours

Program Electives

- ACC 205 - Computerized Accounting Credit Hours: 4
- ART 315 - Design Thinking Credit Hours: 3
- BUS 107 - Seminar Credit Hours: 15
- BUS 256 - Graphic Design for Business Credit Hours: 3
- BUS 318 - Marketing II Credit Hours: 3
- BUS 319 - Integrated Marketing Comm. Credit Hours: 3
- BUS 326 - Sales/Sales Management Credit Hours: 3
- BUS 335 - Entrepreneurship II Credit Hours: 3

- BUS 390 - Applied Management Internship Credit Hours: 3
- BUS 399 - Marketing Special Topics Credit Hours: 3
- BUS 434 - Global Marketing Credit Hours: 3
- BUS 447 - Controversial Issues in Mgmt Credit Hours: 3
- COM 237 - Intro to Visual Communication Credit Hours: 3
- COM 248 - Digital Media Production Credit Hours: 3
- COM 256 - Public Relations Credit Hours: 3
- COM 347 - Negotiation & Conflict Resol'n Credit Hours: 3
- GIS 134 - Geographic Information Systems Credit Hours: 3
- MGT 462 - Lean/Six Sigma Management II Credit Hours: 3
- MGT 463 - Lean/Six Sigma Management III Credit Hours: 3
- MIS 118 - Intro to Programming in C# Credit Hours: 4
- MIS 225 - Business on the Internet Credit Hours: 4
- MIS 341 - Relational Database Design I Credit Hours: 4
- MIS 344 - Business Intelligence Credit Hours: 3
- MIS 446 - Data Mining Credit Hours: 3
- WRI 350 - Documentation Develop Credit Hours: 3
- MGT 322 - Supply Chain Management Credit Hours: 3
- MGT 323 - Logistics Management Credit Hours: 3

Total for a B.S. in Business, Management Option: 182/183 Credit Hours

Business, Marketing Option, BS

The marketing option provides students with a broad business education and includes a strong emphasis in modern marketing concepts and practices. This degree option focuses on data-driven analytical skills sought by employers including social media and digital marketing. Students learn to analyze an organization's activities to develop and implement a marketing strategy. Marketing graduates enjoy careers in advertising, marketing research, social media marketing, distribution, and sales.

Curriculum

Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- BUS 215 - Principles of Management Credit Hours: 3
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
  Laboratory Science Elective Credit Hours: 4

Winter

- BUS 223 - Marketing I Credit Hours: 3
- ECO 201 - Principles of Microeconomics Credit Hours: 3
- MIS 102 - Spreadsheet Software Lab Credit Hours: 1

- PSY 201Z - Introduction to Psychology I Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4

Spring

- ECO 202 - Principles of Macroeconomics Credit Hours: 3
- MIS 206 - Intro to Mgmt Info Sys Credit Hours: 3
- SPE 321 - Small Group/Team Comm Credit Hours: 3
- WRI 227Z - Technical Writing Credit Hours: 4
  Humanities Elective Credit Hours: 3

Sophomore Year

Fall

- BA 211Z - Principles of Financial Accounting Credit Hours: 4
- MATH 361 - Statistical Methods I Credit Hours: 4
- MIS 113 - Intro to Database Systems Credit Hours: 3
  or
- MIS 275 - Intro to Relational Databases Credit Hours: 4
  Humanities Elective Credit Hours: 3

Winter

- BUS 256 - Graphic Design for Business Credit Hours: 3
- BUS 318 - Marketing II Credit Hours: 3
- BUS 349 - Human Resource Management I Credit Hours: 3
- MATH 371 - Finite Math/Calc I Credit Hours: 4
- PHIL 331 - Ethics in the Professions Credit Hours: 3
  or
- PHIL 342 - Business Ethics Credit Hours: 3

Spring

- BA 213Z - Principles of Managerial Accounting Credit Hours: 4
- BUS 456 - Business Research Methods Credit Hours: 3
- MIS 225 - Business on the Internet Credit Hours: 4
- MIS 375 - Decision Support Systems Credit Hours: 3

Junior Year

Fall

- BUS 319 - Integrated Marketing Comm. Credit Hours: 3
- BUS 467 - Service Management Credit Hours: 3
- MGT 321 - Operations Management Credit Hours: 3
- Program Elective Credit Hours: 3
- GIS Seminar Credit Hours: 2

Winter

- ACC 325 - Finance Credit Hours: 4
- BUS 226 - Business Law Credit Hours: 3
- Communication Elective Credit Hours: 3
- Program Elective Credit Hours: 3
- Elective Credit Hours: 3

Spring

- BUS 390 - Applied Management Internship Credit Hours: 3
  or
- Business Elective Credit Hours: 3
- BUS 435 - Marketing III Credit Hours: 3
- BUS 473 - Marketing Plan Development Credit Hours: 3
- MGT 335 - Project Management Credit Hours: 4
- Elective Credit Hours: 3

Senior Year

Fall

- BUS 308 - Prin of International Business Credit Hours: 3
- BUS 441 - Leadership I Credit Hours: 3
- BUS 457 - Business Research Methods II Credit Hours: 3
  or
- BUS 414 - Marketing Research Credit Hours: 3
- BUS 480 - Capstone Experience Credit Hours: 4
- PSY 347 - Organizational Behavior Credit Hours: 3

Winter

- ANTH 452 - Globalization Credit Hours: 3
- BUS 356 - Business Presentations Credit Hours: 4
- BUS 480 - Capstone Experience Credit Hours: 4
- Elective Credit Hours: 3
- Elective Credit Hours: 3

Spring

- BUS 478 - Strategic Management Credit Hours: 3
- Program Elective Credit Hours: 3
- Program Elective Credit Hours: 3
- Program Elective Credit Hours: 3

Program Electives

- ACC 205 - Computerized Accounting Credit Hours: 4

- ART 215 - Design Arts and Aesthetics Credit Hours: 3
- ART 226 - Digital Photography Credit Hours: 3
- ART 315 - Design Thinking Credit Hours: 3
- BUS 107 - Seminar Credit Hours: 15
- BUS 314 - Entrepreneurship I Credit Hours: 3
- BUS 326 - Sales/Sales Management Credit Hours: 3
- BUS 335 - Entrepreneurship II Credit Hours: 3
- BUS 390 - Applied Management Internship Credit Hours: 3
- BUS 399 - Marketing Special Topics Credit Hours: 3
- BUS 434 - Global Marketing Credit Hours: 3
- BUS 447 - Controversial Issues in Mgmt Credit Hours: 3
- COM 237 - Intro to Visual Communication Credit Hours: 3
- COM 248 - Digital Media Production Credit Hours: 3
- COM 256 - Public Relations Credit Hours: 3
- COM 347 - Negotiation & Conflict Resol'n Credit Hours: 3
- GIS 134 - Geographic Information Systems Credit Hours: 3
- MGT 461 - Lean/Six Sigma Management I Credit Hours: 3
- MGT 462 - Lean/Six Sigma Management II Credit Hours: 3
- MGT 463 - Lean/Six Sigma Management III Credit Hours: 3
- MIS 118 - Intro to Programming in C# Credit Hours: 4
- MIS 334 - Business Analytics Credit Hours: 4
- MIS 341 - Relational Database Design I Credit Hours: 4
- MIS 344 - Business Intelligence Credit Hours: 3
- MIS 446 - Data Mining Credit Hours: 3
- WRI 350 - Documentation Develop Credit Hours: 3

Total for a B.S. in Business, Marketing Option: 182-183 Credit Hours

Cybersecurity, BS

The BS in Cybersecurity provides students with the knowledge and skills necessary to competently scan, assess, report, and mitigate cybersecurity threats, vulnerabilities, and exploits on information systems and technology. A graduate of the BS in Cybersecurity program is prepared to assess the security needs of computer and network systems, recommend safeguard solutions, and manage the implementation and maintenance of security devices, systems, and procedures. Includes instruction in computer architecture, scripting, systems analysis, networking, cryptography, security system design, applicable law and regulations, risk assessment and policy analysis, contingency planning, user access issues, investigation techniques, and troubleshooting.

Curriculum

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
- Laboratory Science Elective Credit Hours: 4

Winter

- CYB 201 - Cybersecurity Fundamentals Credit Hours: 3
- ECO 201 - Principles of Microeconomics Credit Hours: 3
- MATH 112Z - Precalculus II: Trigonometry Credit Hours: 4
- MIS 102 - Spreadsheet Software Lab Credit Hours: 1
- MIS 145 - Intro to PC Hardware/Software Credit Hours: 4

Spring

- BUS 215 - Principles of Management Credit Hours: 3
- MIS 251 - Networking I Credit Hours: 4
- MIS 275 - Intro to Relational Databases Credit Hours: 4
- MIS 285 - Python Programming Credit Hours: 4

Sophomore Year

Fall

- BA 211Z - Principles of Financial Accounting Credit Hours: 4
- MIS 118 - Intro to Programming in C# Credit Hours: 4
- MIS 273 - Systems Administration I Credit Hours: 4
- WRI 227Z - Technical Writing Credit Hours: 4

Winter

- BUS 226 - Business Law Credit Hours: 3
- MATH 361 - Statistical Methods I Credit Hours: 4
- MIS 218 - Intermediate Programming in C# Credit Hours: 4
- PHIL 331 - Ethics in the Professions Credit Hours: 3
  or
- PHIL 342 - Business Ethics Credit Hours: 3

Spring

- BA 213Z - Principles of Managerial Accounting Credit Hours: 4
- ECO 202 - Principles of Macroeconomics Credit Hours: 3
- MGT 335 - Project Management Credit Hours: 4
- MIS 240 - Intro to Linux OS Credit Hours: 4
- SPE 321 - Small Group/Team Comm Credit Hours: 3

Junior Year

Fall

- ACC 325 - Finance Credit Hours: 4
- CYB 301 - Hacker Tools and Techniques Credit Hours: 4
- MIS 311 - Intro to Systems Analysis Credit Hours: 3
- MIS 351 - Enterprise Networking Credit Hours: 4
- Humanities Elective Credit Hours: 3

Winter

- CYB 302 - System Defenses and Incident Response Credit Hours: 4
- MIS 312 - Systems Analysis I Credit Hours: 4
- MIS 334 - Business Analytics Credit Hours: 4
- MIS 341 - Relational Database Design I Credit Hours: 4

Spring

- BUS 223 - Marketing I Credit Hours: 3
- CYB 303 - Security Operations and Analysis Credit Hours: 4
- CYB 351 - Network Security Credit Hours: 4
- MIS 322 - Systems Analysis II Credit Hours: 4

Senior Year

Fall

- CYB 411 - Managing Risk in Information Systems Credit Hours: 3
- MGT 321 - Operations Management Credit Hours: 3
- MIS 365 - Cloud Computing Credit Hours: 4

- WRI 327 - Advanced Tech Writing Credit Hours: 3
  Or
- WRI 350 - Documentation Develop Credit Hours: 3

Winter

- BUS 349 - Human Resource Management I Credit Hours: 3
- BUS 356 - Business Presentations Credit Hours: 4
- PSY 347 - Organizational Behavior Credit Hours: 3
- MIS 480 - Capstone Experience Credit Hours: 4

Spring

- ANTH 452 - Globalization Credit Hours: 3
- BUS 478 - Strategic Management Credit Hours: 3
- MIS 480 - Capstone Experience Credit Hours: 4

- Humanities Elective Credit Hours: 3

Total for a B.S. in Cybersecurity: 183 Credit Hours

Health Care Management, Administration Option, BS

Administration Option

This program offers a BS in Health Care Management to students whose interests lie in business and health care administration. The curriculum is designed to prepare the graduate for entry- and mid-level management positions and/or for graduate programs in Health Care Administration, Hospital Administration or Public Health. Based on a core of common management courses, the program builds a broader base of understanding of health care in the U.S. and its systems, policies, and challenges. Students selecting the Administration option will complete a Health Informatics Minor as part of their studies. Students will also choose a second minor/series of focused program electives in: Applied Health Data Analytics, Applied Medical Sociology, or Psychology.

Curriculum

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- BIO 200 - Medical Terminology Credit Hours: 2
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- MIS 255 - Health Informatics Cpts & Prct Credit Hours: 3
- WRI 121Z - Composition I Credit Hours: 4

Winter

- BUS 223 - Marketing I Credit Hours: 3
  OR
- BUS 337 - Prin of Health Care Marketing Credit Hours: 3
- ECO 201 - Principles of Microeconomics Credit Hours: 3
- MIS 102 - Spreadsheet Software Lab Credit Hours: 1
- COM 111Z - Public Speaking Credit Hours: 4
- PSY Elective Credit Hours: 3

Spring

- ECO 202 - Principles of Macroeconomics Credit Hours: 3
- SPE 321 - Small Group/Team Comm Credit Hours: 3
- WRI 227Z - Technical Writing Credit Hours: 4

- Elective Credit Hours: 3
- Elective Credit Hours: 3

Sophomore Year

Fall

- BA 211Z - Principles of Financial Accounting Credit Hours: 4
- BIO 103 - Intro to Human Anat & Phys Credit Hours: 4
  or
- BIO 231 - Human Anatomy/Physiology I Credit Hours: 4
- BUS 313 - Health Care Systems & Policy Credit Hours: 3
- MIS 113 - Intro to Database Systems Credit Hours: 3
  or
- MIS 275 - Intro to Relational Databases Credit Hours: 4

Winter

- BUS 316 - Total Quality Health Care Credit Hours: 3
- COM 205 - Intercultural Comm Credit Hours: 3
- MATH 361 - Statistical Methods I Credit Hours: 4
- Humanities Elective Credit Hours: 3
- Program Elective Credit Hours: 3

Spring

- BA 213Z - Principles of Managerial Accounting Credit Hours: 4
- BUS 215 - Principles of Management Credit Hours: 3
  or
- BUS 317 - Health Care Management Credit Hours: 3
- SOC 225 - Medical Sociology Credit Hours: 3
- Elective Credit Hours: 3
- Elective Credit Hours: 3

Junior Year

Fall

- ACC 325 - Finance Credit Hours: 4
- BUS 308 - Prin of International Business Credit Hours: 3
- MGT 321 - Operations Management Credit Hours: 3
- BUS 226 - Business Law Credit Hours: 3
- Program Elective Credit Hours: 3

Winter

- PHIL 305 - Medical Ethics Credit Hours: 3
  or

- PHIL 331 - Ethics in the Professions Credit Hours: 3
  or
- PHIL 342 - Business Ethics Credit Hours: 3
- BUS 349 - Human Resource Management I Credit Hours: 3
- STAT 414 - Stat Methods in Epidemiology Credit Hours: 4
- Elective Credit Hours: 3
- Program Elective Credit Hours: 3

Spring

- BUS 356 - Business Presentations Credit Hours: 4
- MGT 335 - Project Management Credit Hours: 4
- Humanities Elective Credit Hours: 3
- BUS or MGT Elective Credit Hours: 3
- Program Elective Credit Hours: 3

Senior Year

Fall

- BUS 441 - Leadership I Credit Hours: 3
- BUS 456 - Business Research Methods Credit Hours: 3
  or
- BUS 457 - Business Research Methods II Credit Hours: 3
- BUS 467 - Service Management Credit Hours: 3
- BUS 480 - Capstone Experience Credit Hours: 4
- MIS 345 - Health Care Info Systms Mgment Credit Hours: 3

Winter

- BUS 480 - Capstone Experience Credit Hours: 4
- MIS 357 - Info & Comm Systs in Hlth Care Credit Hours: 3
- Elective Credit Hours: 3
- Elective Credit Hours: 3
- Program Elective Credit Hours: 3

Spring

- BUS 478 - Strategic Management Credit Hours: 3
- PSY 347 - Organizational Behavior Credit Hours: 3
- Program Elective Credit Hours: 3
- Elective Credit Hours: 3

Program Electives

Students may choose to mix and match these.

Health Data Analytics Track:

- MIS 118 - Intro to Programming in C# Credit Hours: 4
- MIS 334 - Business Analytics Credit Hours: 4
- MIS 341 - Relational Database Design I Credit Hours: 4
- MIS 344 - Business Intelligence Credit Hours: 3
- MIS 446 - Data Mining Credit Hours: 3

Medical Sociology Track:

- SOC 204 - Intro to Sociology Credit Hours: 3
- SOC 325 - Global Population Health Credit Hours: 3
- SOC 335 - Hlth Inequal & Cult Competency Credit Hours: 3
- SOC or PHM Elective Credit Hours: 3
- SOC or PSY Elective Credit Hours: 3
- PSY Elective Credit Hours: 3

Psychology Track:

- PSY 201Z - Introduction to Psychology I Credit Hours: 4
- PSY 202Z - Introduction to Psychology II Credit Hours: 4
- PSY 203 - Psychology Credit Hours: 3
- Lower/Upper PSY Elective Credit Hours: 3
- Upper Division PSY Elective Credit Hours: 3
- Upper Division PSY Elective Credit Hours: 3

Total for a B.S. in Health Care Management, Administration Option: 183/184 Credit Hours

Health Care Management, Clinical Option, BS

Clinical Option

This program bridges two disciplines; Allied Health and Management. The clinical option requires a current state and/or national registry, license, or certificate in an approved allied health field. The degree prepares Allied Health professionals for advancement to management or supervisory roles.

Curriculum

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Prior Learning

- Registry Transfer Credits Credit Hours: 44

Sophomore Year

Fall

- BA 211Z - Principles of Financial Accounting Credit Hours: 4

- BIO 103 - Intro to Human Anat & Phys Credit Hours: 4
  or
- BIO 231 - Human Anatomy/Physiology I Credit Hours: 4

- COM 111Z - Public Speaking Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

Winter

- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- MIS 102 - Spreadsheet Software Lab Credit Hours: 1
- Elective Credit Hours: 3
- Math/Science Elective Credit Hours: 4

Spring

- BA 213Z - Principles of Managerial Accounting Credit Hours: 4
- BUS 226 - Business Law Credit Hours: 3
- BUS 317 - Health Care Management Credit Hours: 3
- WRI 227Z - Technical Writing Credit Hours: 4
- Elective Credit Hours: 3

Junior Year

Fall

- ACC 325 - Finance Credit Hours: 4
- BUS 308 - Prin of International Business Credit Hours: 3
- BUS 313 - Health Care Systems & Policy Credit Hours: 3
- MIS 113 - Intro to Database Systems Credit Hours: 3
- PSY 201Z - Introduction to Psychology I Credit Hours: 4

Winter

- BIO 200 - Medical Terminology Credit Hours: 2
- BUS 349 - Human Resource Management I Credit Hours: 3
- ECO 201 - Principles of Microeconomics Credit Hours: 3

- STAT 243Z - Elementary Statistics I Credit Hours: 4
  or
- MATH 361 - Statistical Methods I Credit Hours: 4

- PHIL 331 - Ethics in the Professions Credit Hours: 3
  or
- PHIL 342 - Business Ethics Credit Hours: 3

Spring

- BUS 356 - Business Presentations Credit Hours: 4

- BUS 223 - Marketing I Credit Hours: 3
  or
- BUS 337 - Prin of Health Care Marketing Credit Hours: 3

- ECO 202 - Principles of Macroeconomics Credit Hours: 3
- MGT 335 - Project Management Credit Hours: 4
- SPE 321 - Small Group/Team Comm Credit Hours: 3

Senior Year

Fall

- BUS 441 - Leadership I Credit Hours: 3
- BUS 457 - Business Research Methods II Credit Hours: 3
- BUS 467 - Service Management Credit Hours: 3
- MIS 345 - Health Care Info Systms Mgment Credit Hours: 3

Winter

- BUS 316 - Total Quality Health Care Credit Hours: 3
- BUS 480 - Capstone Experience Credit Hours: 4
- COM 205 - Intercultural Comm Credit Hours: 3
- Upper Division Elective Credit Hours: 3
- Humanities Elective Credit Hours: 3

Spring

- BUS 478 - Strategic Management Credit Hours: 3
- BUS 480 - Capstone Experience Credit Hours: 4
- PSY 347 - Organizational Behavior Credit Hours: 3
- WRI 410 - Proposal & Grant Writing Credit Hours: 3
- Humanities Elective Credit Hours: 3

Total for a B.S. in Health Care Management, Clinical Option: 181 Credit Hours

Health Care Management, Radiological Science Management Option, BS

This program offers a BS in Health Care Management to students who hold a current registry through the American Registry of Radiologic Technologists (ARRT) and who wish to enhance their career by obtaining a management degree with emphasis on management of a medical imaging facility or department. It is designed for the radiologic technologist seeking skills and credentials that enable advancement to positions of middle management.

The BS degree in Health Care Management, Radiologic Science Management Option is fully online with no requirement to come to campus and does not require clinical practice involving patient contact.

Curriculum

This curriculum map is arranged in the typical term by term format; however, online degree completion students should consult with their academic advisor regarding course scheduling.

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Prior Learning

- Registry Transfer Credits Credit Hours: 89

Sophomore Year

Fall

- BA 211Z - Principles of Financial Accounting Credit Hours: 4
- MIS 102 - Spreadsheet Software Lab Credit Hours: 1
- MIS 113 - Intro to Database Systems Credit Hours: 3
- COM 111Z - Public Speaking Credit Hours: 4

Winter

- BIO 200 - Medical Terminology Credit Hours: 2
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- SPE 321 - Small Group/Team Comm Credit Hours: 3
- WRI 121Z - Composition I Credit Hours: 4

Spring

- BA 213Z - Principles of Managerial Accounting Credit Hours: 4

- BUS 223 - Marketing I Credit Hours: 3
  or
- BUS 337 - Prin of Health Care Marketing Credit Hours: 3

- ECO 201 - Principles of Microeconomics Credit Hours: 3
- WRI 227Z - Technical Writing Credit Hours: 4

Junior Year

Fall

- ACC 325 - Finance Credit Hours: 4

- BIO 103 - Intro to Human Anat & Phys Credit Hours: 4
  or
- BIO 231 - Human Anatomy/Physiology I Credit Hours: 4

- BUS 313 - Health Care Systems & Policy Credit Hours: 3

- STAT 243Z - Elementary Statistics I Credit Hours: 4
  or
- MATH 361 - Statistical Methods I Credit Hours: 4

Winter

- ECO 202 - Principles of Macroeconomics Credit Hours: 3

- PSY 201Z - Introduction to Psychology I Credit Hours: 4
  or
- PSY 202Z - Introduction to Psychology II Credit Hours: 4
  or
- PSY 203 - Psychology Credit Hours: 3

- Math/Science Elective Credit Hours: 4
- Humanities Elective Credit Hours: 3

Spring

- BUS 226 - Business Law Credit Hours: 3
- BUS 317 - Health Care Management Credit Hours: 3
- BUS 356 - Business Presentations Credit Hours: 4
- MGT 335 - Project Management Credit Hours: 4

Senior Year

Fall

- BUS 308 - Prin of International Business Credit Hours: 3
- BUS 457 - Business Research Methods II Credit Hours: 3
- BUS 480 - Capstone Experience Credit Hours: 4
- MIS 345 - Health Care Info Systms Mgment Credit Hours: 3

Winter

- BUS 316 - Total Quality Health Care Credit Hours: 3
- BUS 480 - Capstone Experience Credit Hours: 4
- PHIL 331 - Ethics in the Professions Credit Hours: 3
  or
- PHIL 342 - Business Ethics Credit Hours: 3

- PSY 347 - Organizational Behavior Credit Hours: 3

Spring

- BUS 478 - Strategic Management Credit Hours: 3
- WRI 410 - Proposal & Grant Writing Credit Hours: 3
- Humanities Elective Credit Hours: 3

Total for a B.S. in Health Care Management, Radiologic Science Option: 205 Credit Hours

Health Informatics Minor

The Minor in Health Informatics may prove valuable to allied health students who will likely be expected to interact with technology in their profession. The minor exposes students to the database systems, health information systems, management processes and data used to improve efficiencies and patient care.

Requirements of Minor

- BUS 313 - Health Care Systems & Policy Credit Hours: 3
- BUS 317 - Health Care Management Credit Hours: 3
- MIS 255 - Health Informatics Cpts & Prct Credit Hours: 3
- MIS 275 - Intro to Relational Databases Credit Hours: 4
- MIS 345 - Health Care Info Systms Mgment Credit Hours: 3
- MIS 357 - Info & Comm Systs in Hlth Care Credit Hours: 3

Note:

Not all courses are offered every year or on every campus. Additional prerequisites may be required; see catalog descriptions and recent course schedules for details.

Health Informatics, BS

Health Informatics is a rapidly developing scientific field that utilizes computer technology to improve the quality and safety of patient care. This program incorporates the sub disciplines of clinical and computational informatics, emphasizing the integration of computer science and the impact of clinical outcomes.

Curriculum

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- MIS 255 - Health Informatics Cpts & Prct Credit Hours: 3

- COM 111Z - Public Speaking Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

Winter

- BIO 200 - Medical Terminology Credit Hours: 2
- ECO 201 - Principles of Microeconomics Credit Hours: 3
- MIS 102 - Spreadsheet Software Lab Credit Hours: 1
- MIS 145 - Intro to PC Hardware/Software Credit Hours: 4
- Humanities Elective Credit Hours: 3

Spring

- BUS 317 - Health Care Management Credit Hours: 3
- ECO 202 - Principles of Macroeconomics Credit Hours: 3
- MIS 251 - Networking I Credit Hours: 4
- MIS 275 - Intro to Relational Databases Credit Hours: 4

Sophomore Year

Fall

- BA 211Z - Principles of Financial Accounting Credit Hours: 4
- MATH 361 - Statistical Methods I Credit Hours: 4
- MIS 118 - Intro to Programming in C# Credit Hours: 4
- WRI 227Z - Technical Writing Credit Hours: 4

Winter

- BUS 223 - Marketing I Credit Hours: 3
  or
- BUS 337 - Prin of Health Care Marketing Credit Hours: 3
- MATH 362 - Statistical Methods II Credit Hours: 4
- MIS 218 - Intermediate Programming in C# Credit Hours: 4
- MIS 357 - Info & Comm Systs in Hlth Care Credit Hours: 3

Spring

- BA 213Z - Principles of Managerial Accounting Credit Hours: 4
- BIO 103 - Intro to Human Anat & Phys Credit Hours: 4
- MGT 335 - Project Management Credit Hours: 4
- SOC 225 - Medical Sociology Credit Hours: 3
- SPE 321 - Small Group/Team Comm Credit Hours: 3

Junior Year

Fall

- ACC 325 - Finance Credit Hours: 4
- BUS 313 - Health Care Systems & Policy Credit Hours: 3
- BUS 356 - Business Presentations Credit Hours: 4
- MIS 311 - Intro to Systems Analysis Credit Hours: 3
- General Elective Credit Hours: 3

Winter

- MIS 312 - Systems Analysis I Credit Hours: 4
- MIS 334 - Business Analytics Credit Hours: 4
- MIS 341 - Relational Database Design I Credit Hours: 4
- General Elective Credit Hours: 3

Spring

- BUS 316 - Total Quality Health Care Credit Hours: 3
- MIS 322 - Systems Analysis II Credit Hours: 4
- MIS 344 - Business Intelligence Credit Hours: 3
- MIS 442 - Adv Database App Programming Credit Hours: 4

Senior Year

Fall

- BUS 457 - Business Research Methods II Credit Hours: 3
- MIS 345 - Health Care Info Systms Mgment Credit Hours: 3

Winter

- ANTH 452 - Globalization Credit Hours: 3
- MIS 480 - Capstone Experience Credit Hours: 4
- PHIL 305 - Medical Ethics Credit Hours: 3
  or
- PHIL 331 - Ethics in the Professions Credit Hours: 3
  or
- PHIL 342 - Business Ethics Credit Hours: 3
- STAT 414 - Stat Methods in Epidemiology Credit Hours: 4
- Humanities Elective Credit Hours: 3

Spring

- BUS 478 - Strategic Management Credit Hours: 3
- MIS 446 - Data Mining Credit Hours: 3
- MIS 480 - Capstone Experience Credit Hours: 4
- PSY 347 - Organizational Behavior Credit Hours: 3
- WRI 410 - Proposal & Grant Writing Credit Hours: 3

Total for a B.S. in Health Informatics: 182 Credit Hours

Information Technology Minor

The Information Technology (IT) Minor recognizes the achievement of 27 credits in technical courses. Some of the courses may be included in the student's requirements for a bachelor's degree from Oregon Tech. The IT minor may prove valuable to management or technical students who want to demonstrate that they have additional skills in management information systems and information technology areas, enhancing employability and improving graduate school possibilities. The minor is open to all majors except Information Technology, Cybersecurity, and Health Informatics.

Requirements of Minor:

- MIS 118 - Intro to Programming in C# Credit Hours: 4
- MIS 145 - Intro to PC Hardware/Software Credit Hours: 4
- MIS 275 - Intro to Relational Databases Credit Hours: 4
- MIS 311 - Intro to Systems Analysis Credit Hours: 3
- MIS 312 - Systems Analysis I Credit Hours: 4

Elective Courses:

Choose two electives (8 credits) from the following list:

- MIS 218 - Intermediate Programming in C# Credit Hours: 4
- MIS 251 - Networking I Credit Hours: 4
- MIS 273 - Systems Administration I Credit Hours: 4
- MIS 334 - Business Analytics Credit Hours: 4
- MIS 341 - Relational Database Design I Credit Hours: 4

Information Technology, BS

Information Technology powers modern business. This field is interdisciplinary, with applications to all aspects of the economy. Students solve real-world business problems and gain critical skills and hands-on experience in networking, server administration, programming, databases, information security, and systems analysis. Graduating students are prepared to bridge the technology and management disciplines in their organizations.

Curriculum

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

- Laboratory Science Elective Credit Hours: 4

Winter

- ECO 201 - Principles of Microeconomics Credit Hours: 3
- MIS 102 - Spreadsheet Software Lab Credit Hours: 1
- MIS 145 - Intro to PC Hardware/Software Credit Hours: 4
- PHIL 205 - Introduction to Logic Credit Hours: 3
- Humanities Elective Credit Hours: 3

Spring

- BUS 215 - Principles of Management Credit Hours: 3
- ECO 202 - Principles of Macroeconomics Credit Hours: 3
- MIS 251 - Networking I Credit Hours: 4
- MIS 275 - Intro to Relational Databases Credit Hours: 4

Sophomore Year

Fall

- BA 211Z - Principles of Financial Accounting Credit Hours: 4
- MIS 118 - Intro to Programming in C# Credit Hours: 4
- MIS 273 - Systems Administration I Credit Hours: 4
- WRI 227Z - Technical Writing Credit Hours: 4

Winter

- BUS 223 - Marketing I Credit Hours: 3
- CYB 201 - Cybersecurity Fundamentals Credit Hours: 3
- MATH 361 - Statistical Methods I Credit Hours: 4
- MIS 218 - Intermediate Programming in C# Credit Hours: 4
- PHIL 331 - Ethics in the Professions Credit Hours: 3
  or
- PHIL 342 - Business Ethics Credit Hours: 3

Spring

- BA 213Z - Principles of Managerial Accounting Credit Hours: 4
- MATH 362 - Statistical Methods II Credit Hours: 4
- MGT 335 - Project Management Credit Hours: 4
- SPE 321 - Small Group/Team Comm Credit Hours: 3
- Elective Credit Hours: 3

Junior Year

Fall

- ACC 325 - Finance Credit Hours: 4
- MIS 311 - Intro to Systems Analysis Credit Hours: 3
- Focused Sequence Elective Credit Hours: 4 a
- Focused Sequence Elective Credit Hours: 4 a

Winter

- MIS 312 - Systems Analysis I Credit Hours: 4
- MIS 334 - Business Analytics Credit Hours: 4
- MIS 341 - Relational Database Design I Credit Hours: 4
- WRI 327 - Advanced Tech Writing Credit Hours: 3
  or
- WRI 350 - Documentation Develop Credit Hours: 3

Spring

- BUS 226 - Business Law Credit Hours: 3
- MIS 322 - Systems Analysis II Credit Hours: 4
- Elective Credit Hours: 3
- Focused Sequence Elective Credit Hours: 4 a

Senior Year

Fall

- CYB 411 - Managing Risk in Information Systems Credit Hours: 3
- MGT 321 - Operations Management Credit Hours: 3
- PSY 347 - Organizational Behavior Credit Hours: 3
- Focused Sequence Elective Credit Hours: 4 a

Winter

- BUS 349 - Human Resource Management I Credit Hours: 3
- BUS 356 - Business Presentations Credit Hours: 4
- MIS 480 - Capstone Experience Credit Hours: 4
- Focused Sequence Elective Credit Hours: 4 a

Spring

- ANTH 452 - Globalization Credit Hours: 3
  or
- HIST 452 - Globalization & Pac NW Credit Hours: 3
- BUS 478 - Strategic Management Credit Hours: 3
- MIS 480 - Capstone Experience Credit Hours: 4
- Focused Sequence Elective Credit Hours: 4 a

Total for a B.S. in Information Technology: 181 Credit Hours

[a] Students will select a 24-unit track listed as their focus elective sequence and will complete a senior project related to the track chosen.

Focused Electives

Business Application Programming

- MIS 285 - Python Programming Credit Hours: 4
- MIS 442 - Adv Database App Programming Credit Hours: 4
- Programming Elective Credit Hours: 4
- Programming Elective Credit Hours: 4
- Programming Elective Credit Hours: 4

Data Administration and Architecture

- MIS 344 - Business Intelligence Credit Hours: 3
- MIS 365 - Cloud Computing Credit Hours: 4
- MIS 441 - Big Data Credit Hours: 4
- MIS 442 - Adv Database App Programming Credit Hours: 4
- MIS 446 - Data Mining Credit Hours: 3
- Elective Credit Hours: 1
- Elective Credit Hours: 1

Data Infrastructure and Networking

- CYB 351 - Network Security Credit Hours: 4
- MIS 240 - Intro to Linux OS Credit Hours: 4
- MIS 285 - Python Programming Credit Hours: 4
- MIS 351 - Enterprise Networking Credit Hours: 4
- MIS 365 - Cloud Computing Credit Hours: 4
- MIS 441 - Big Data Credit Hours: 4

Health Informatics (Includes HI Minor)

- BUS 313 - Health Care Systems & Policy Credit Hours: 3
- MIS 255 - Health Informatics Cpts & Prct Credit Hours: 3
- MIS 344 - Business Intelligence Credit Hours: 3
- MIS 345 - Health Care Info Systms Mgment Credit Hours: 3
- MIS 357 - Info & Comm Systs in Hlth Care Credit Hours: 3
- MIS 446 - Data Mining Credit Hours: 3
- STAT 414 - Stat Methods in Epidemiology Credit Hours: 4
- Elective Credit Hours: 1
- Elective Credit Hours: 1

Innovation & Entrepreneurship Minor

The minor in Innovation & Entrepreneurship (I&E) is designed to equip students with the skills needed to work in or with innovative organizations, presenting innovation and entrepreneurship as an iterative process that originates with

ideation and integrates business evaluation of concepts intended to either solve a problem or bring about desired change. Focus is on the entrepreneurial mindset.

The I&E minor may be completed by students from any major and is especially recommended for students interested in innovation- and invention-based career paths and/or competing in Catalyze Klamath. The minor will give students the opportunity to design a program of study that is relevant to their major program and their future career goals.

Requirements of Minor

The minor requires 24 credit hours, including three (3) required courses (9 credits). The remaining courses may be chosen, in consultation with their advisor, from the list below.

Required Courses Credit Hours: 9

- BUS 335 - Entrepreneurship II Credit Hours: 3
- BUS 314 - Entrepreneurship I Credit Hours: 3

- ENGR 445 - Engineering Project Management Credit Hours: 3
  or
- MGT 335 - Project Management Credit Hours: 4
  or
- PWR 355 - Project Management for Writers Credit Hours: 3

Elective Courses

- ART 315 - Design Thinking Credit Hours: 3
- BUS 318 - Marketing II Credit Hours: 3
- BUS 319 - Integrated Marketing Comm. Credit Hours: 3
- BUS 435 - Marketing III Credit Hours: 3
- BUS 441 - Leadership I Credit Hours: 3
- COM 215 - Creativity in Comm Credit Hours: 3
- COM 309 - Communication Tech in Use Credit Hours: 3
- COM 347 - Negotiation & Conflict Resol'n Credit Hours: 3
- COM 446 - Communication & Leadership Credit Hours: 3
- PSY 347 - Organizational Behavior Credit Hours: 3
- PWR 330 - User Research Credit Hours: 3
- SPE 321 - Small Group/Team Comm Credit Hours: 3
- WRI 350 - Documentation Develop Credit Hours: 3

Note:

Additional prerequisites may be required. Students are encouraged to work with their advisor to identify those courses most relevant to their course of study.

International Business Minor

The Minor in International Business recognizes the achievement of 22 credits in international courses. The Minor in International Business may prove valuable to a technical student who ventures into management or consulting in his or her career field, enhancing employability and improving graduate school possibilities. This minor is open to all majors and is especially recommended for students with an interest in Business and/or global affairs.

Requirements of Minor:

A passing grade in all courses and a cumulative GPA of 2.0 or better is required to be awarded the minor. Students are encouraged to consult with a Management Department advisor to schedule courses.

- BUS 308 - Prin of International Business Credit Hours: 3

- BUS 434 - Global Marketing Credit Hours: 3
- COM 205 - Intercultural Comm Credit Hours: 3
- MIS 311 - Intro to Systems Analysis Credit Hours: 3

Suggested Social Science Electives

- GEOG 106 - Cultural Geography I Credit Hours: 3

Suggested Open Electives

- COM 320 - Advanced Intercultural Comm Credit Hours: 3
- Any foreign language sequence Credit Hours: 4

Suggested Humanities Electives

- Any second year foreign language sequence Credit Hours: 4

Strongly Recommended: Study Abroad Program

- 1 semester/2 terms Credit Hours: 4

Management Information Systems, Certificate

The Online Certificate in Management Information Systems (MIS) includes a core course in Introduction to PC Hardware and Software and additional focus courses in Management Information Systems, Networking, Systems Administration, and Cloud Computing to name a few. At least 3 credits and a maximum of 8 credits must be taken from the 100- and 200-level elective list and at least 6 credits must be taken from the 300-level elective course list.

Successful completion with a grade of "C" or better in 3 credit hours of the core class (MIS 145) and in 3 to 8 credit hours of focus classes at the 100- and 200-level (MIS 113; or MIS 118; or MIS 206; or MIS 251; or MIS 255 or MIS 273; or MIS 275, and at least 6 credits at the 300-level (MIS 341; or MIS 351; or MIS 357; or MIS 365; or MIS 344). **Students must complete 18 credits to receive the certificate.**

Core Required Course

- MIS 145 - Intro to PC Hardware/Software Credit Hours: 4

100 Level Elective Courses

- MIS 113 - Intro to Database Systems Credit Hours: 3
- MIS 118 - Intro to Programming in C# Credit Hours: 4

200 Level Elective Courses

- MIS 273 - Systems Administration I Credit Hours: 4
- MIS 275 - Intro to Relational Databases Credit Hours: 4
- MIS 206 - Intro to Mgmt Info Sys Credit Hours: 3
- MIS 251 - Networking I Credit Hours: 4
- MIS 255 - Health Informatics Cpts & Prct Credit Hours: 3

300 Level Elective Courses

- MIS 341 - Relational Database Design I Credit Hours: 4
- MIS 344 - Business Intelligence Credit Hours: 3
- MIS 351 - Enterprise Networking Credit Hours: 4
- MIS 357 - Info & Comm Systs in Hlth Care Credit Hours: 3
- MIS 365 - Cloud Computing Credit Hours: 4

Operations Management, BS

Operations Managers coordinate equipment, materials, human capital, and information across businesses to profitably meet or exceed customer expectations. Students in Operations Management successfully blend the art of management with applied science through creativity, people skills, rational analysis, and application of technology.

Curriculum

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- BUS 215 - Principles of Management Credit Hours: 3
- PSY 201Z - Introduction to Psychology I Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
- Humanities Elective Credit Hours: 3

Winter

- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- MIS 102 - Spreadsheet Software Lab Credit Hours: 1
- COM 111Z - Public Speaking Credit Hours: 4
- Elective Credit Hours: 3

Spring

- BUS 223 - Marketing I Credit Hours: 3
- ECO 201 - Principles of Microeconomics Credit Hours: 3
- MIS 206 - Intro to Mgmt Info Sys Credit Hours: 3
- WRI 227Z - Technical Writing Credit Hours: 4
- Humanities Elective Credit Hours: 3

Sophomore Year

Fall

- BA 211Z - Principles of Financial Accounting Credit Hours: 4
- MATH 361 - Statistical Methods I Credit Hours: 4
- MIS 113 - Intro to Database Systems Credit Hours: 3
- Elective Credit Hours: 3
- Elective Credit Hours: 3

Winter

- BUS 226 - Business Law Credit Hours: 3
- ECO 202 - Principles of Macroeconomics Credit Hours: 3
- MATH 371 - Finite Math/Calc I Credit Hours: 4
- Elective Credit Hours: 3
- Elective Credit Hours: 3

Spring

- BA 213Z - Principles of Managerial Accounting Credit Hours: 4
- BUS 356 - Business Presentations Credit Hours: 4
- BUS 456 - Business Research Methods Credit Hours: 3
- SPE 321 - Small Group/Team Comm Credit Hours: 3

Junior Year

Fall

- ACC 325 - Finance Credit Hours: 4
- BUS 457 - Business Research Methods II Credit Hours: 3
- MGT 321 - Operations Management Credit Hours: 3
- MGT 461 - Lean/Six Sigma Management I Credit Hours: 3
- Elective Credit Hours: 3

Winter

- MGT 322 - Supply Chain Management Credit Hours: 3
- MGT 462 - Lean/Six Sigma Management II Credit Hours: 3
- WRI 327 - Advanced Tech Writing Credit Hours: 3
- BUS 349 - Human Resource Management I Credit Hours: 3
- Elective Credit Hours: 3

Spring

- MGT 323 - Logistics Management Credit Hours: 3
- MGT 335 - Project Management Credit Hours: 4
- MGT 463 - Lean/Six Sigma Management III Credit Hours: 3
- MIS 375 - Decision Support Systems Credit Hours: 3
- Elective Credit Hours: 3

Senior Year

Fall

- BUS 441 - Leadership I Credit Hours: 3
- BUS 467 - Service Management Credit Hours: 3
- MGT 421 - Quality Management Credit Hours: 3
- Laboratory Science Elective Credit Hours: 4

Winter

- ANTH 452 - Globalization Credit Hours: 3
  or
- PSCI 326 - World Politics in Transition Credit Hours: 3

- BUS 480 - Capstone Experience Credit Hours: 4
- MGT 422 - Materials Management Credit Hours: 3
- PHIL 331 - Ethics in the Professions Credit Hours: 3
- PSY 347 - Organizational Behavior Credit Hours: 3

Spring

- BUS 478 - Strategic Management Credit Hours: 3
- BUS 480 - Capstone Experience Credit Hours: 4
- MGT 423 - Enterprise Resource Planning Credit Hours: 3
- Elective Credit Hours: 3
- Elective Credit Hours: 3

Total for a B.S. in Operations Management: 181 Credit Hours

Six Sigma Green Belt Emphasis

The Management Department offers students the opportunity to earn a Six Sigma Green Belt Certificate. The Green Belt Certificate is an emphasis under the BS in Business, Management and Marketing options, the BS in Health Care Management, Administration option, and the BS in Operations Management. In addition to the fundamental management curriculum, the emphasis requires the completion of a Lean/Six Sigma project. Those attaining the emphasis will be well-positioned to work in companies that deploy Lean Six Sigma.

Additionally, employees of companies that deploy Lean Six Sigma may complete the course work and project to obtain their certificate.

Students completing the Six Sigma Green Belt Emphasis must complete the following courses and their prerequisites. Prerequisites may be waived for industry students depending on their individual backgrounds and abilities.

Courses

- BUS 457 - Business Research Methods II Credit Hours: 3
- BUS 496 - Senior Project Credit Hours: 3
- BUS 497 - Senior Project Credit Hours: 3
- MGT 335 - Project Management Credit Hours: 4
- MGT 461 - Lean/Six Sigma Management I Credit Hours: 3
- MGT 462 - Lean/Six Sigma Management II Credit Hours: 3
- MGT 463 - Lean/Six Sigma Management III Credit Hours: 3

Note:

It should be noted that for OM majors, all of these courses are currently in the curriculum map. No additional coursework is required. With approval, the student's senior project may also be considered for the Six Sigma Green Belt Certificate.

Tech-Infused Global Leadership & Management, Certificate

The online Tech-Infused Global Leadership & Management certificate provides you with an introduction to global business skills needed in a variety of industries. Most certificate students will be able to complete the Certificate within six academic quarters. The certificate focuses on topics in international leadership and management skills for with an infusion of technology-based curriculum for the global manager which is essential in today's workplace. This certificate is designed for those interested in modern tech-based global managerial and leadership skills.

BUS 308 and WRI 121Z must be taken within the first 9 credits of the certificate. At least 3 credits and a maximum of 8 credits must be taken from the 100 and 200 Level Elective list. And at least 6 credits must be taken from the 300/400 Level Elective course options list. **Students must complete 18 credits to receive the certificate.**

Core Required Courses

- WRI 121Z - Composition I Credit Hours: 4
- BUS 308 - Prin of International Business Credit Hours: 3

200 Level Elective Courses

- BUS 215 - Principles of Management Credit Hours: 3
- BUS 226 - Business Law Credit Hours: 3
- COM 205 - Intercultural Comm Credit Hours: 3
- ECO 201 - Principles of Microeconomics Credit Hours: 3
- ECO 202 - Principles of Macroeconomics Credit Hours: 3
- MIS 206 - Intro to Mgmt Info Sys Credit Hours: 3
- MIS 275 - Intro to Relational Databases Credit Hours: 4
- MIS 113 - Intro to Database Systems Credit Hours: 3

300 Level Elective Courses

- BUS 349 - Human Resource Management I Credit Hours: 3
- BUS 375 - Experience Business Abroad I Credit Hours: 3
- COM 320 - Advanced Intercultural Comm Credit Hours: 3
- MIS 311 - Intro to Systems Analysis Credit Hours: 3
- MGT 322 - Supply Chain Management Credit Hours: 3
- MGT 323 - Logistics Management Credit Hours: 3
- PSY 347 - Organizational Behavior Credit Hours: 3

400 Level Elective Course

- BUS 434 - Global Marketing Credit Hours: 3
- BUS 441 - Leadership I Credit Hours: 3

Technology and Management, BAS

The Bachelor of Applied Science (BAS) in Technology and Management provides a path to a bachelor's degree for those students who have completed a technical Associate of Applied Science (AAS) or Associate of Science (AS) degree from an accredited institution recognized by the Council for Higher Education (CHEA) and are seeking career advancement into management or in their technical career fields. The BAS builds on a core of 60 credits of career and technical education (CTE) courses taken as part of the AAS or AS degree, adding 65 credits of business, management, and information technology courses and 55 credits of broad-based general education courses to enable the BAS graduate to advance in the workplace or continue on to graduate school. The management core includes a three-term capstone senior project to enable the student to demonstrate successful integration of technical and managerial coursework.

Curriculum

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability)*.

Degree Required courses and recommended terms during which they should be taken:

Prior Learning

- Up to 60 Career Technical Elective credits

Sophomore Year

Winter

- BA 211Z - Principles of Financial Accounting Credit Hours: 4

- BUS 215 - Principles of Management Credit Hours: 3
  or
- BUS 304 - Engineering Management Credit Hours: 3
  or
- BUS 317 - Health Care Management Credit Hours: 3

- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4

Spring

- BA 213Z - Principles of Managerial Accounting Credit Hours: 4
- ECO 201 - Principles of Microeconomics Credit Hours: 3
- MATH 361 - Statistical Methods I Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4

Junior Year

Fall

- BUS 226 - Business Law Credit Hours: 3
- BUS 457 - Business Research Methods II Credit Hours: 3
- MGT 321 - Operations Management Credit Hours: 3
- MGT 461 - Lean/Six Sigma Management I Credit Hours: 3
- WRI 227Z - Technical Writing Credit Hours: 4

Winter

- ACC 325 - Finance Credit Hours: 4
- BUS 349 - Human Resource Management I Credit Hours: 3
- ECO 202 - Principles of Macroeconomics Credit Hours: 3
- MIS 102 - Spreadsheet Software Lab Credit Hours: 1

- PHIL 331 - Ethics in the Professions Credit Hours: 3
  or
- PHIL 342 - Business Ethics Credit Hours: 3 (upper-division) [a]

Spring

- BUS 356 - Business Presentations Credit Hours: 4
- MGT 335 - Project Management Credit Hours: 4
- MIS 206 - Intro to Mgmt Info Sys Credit Hours: 3
- Laboratory Science Elective Credit Hours: 4

Senior Year

Fall

- BUS 223 - Marketing I Credit Hours: 3
- BUS 441 - Leadership I Credit Hours: 3
- BUS 467 - Service Management Credit Hours: 3
- SPE 321 - Small Group/Team Comm Credit Hours: 3

Winter

- ANTH 452 - Globalization Credit Hours: 3
  or
- HIST 452 - Globalization & Pac NW Credit Hours: 3
- PSY 347 - Organizational Behavior Credit Hours: 3
- Humanities Elective Credit Hours: 3
- Math/Science Elective Credit Hours: 4
- BUS 480 - Capstone Experience Credit Hours: 4

Spring

- BUS 478 - Strategic Management Credit Hours: 3
- MIS 113 - Intro to Database Systems Credit Hours: 3
  or
- MIS 275 - Intro to Relational Databases Credit Hours: 4

- BUS 480 - Capstone Experience Credit Hours: 4
- WRI 327 - Advanced Tech Writing Credit Hours: 3
- Humanities Elective Credit Hours: 3

Note:

The BAS degree specifies 60 upper-division credits. Students transferring in lower-division course equivalents do not receive upper-division credit and may be required to take upper-division electives to meet the minimum 60 credits of upper division credits required for the BAS degree.

Total for a B.A.S. in Technology and Management: 180/181 Credit Hours

Manufacturing and Mechanical Engineering and Technology Department

Abdy Afjeh, *Interim Department Chair*

Professors: D. Culler, Y. Gao, B. Moravec, M. Saber, R. Shih, C. Stover, W. Sun
Associate Professors: W. Abrous, I. Demeshko-Prosnik, S. Sloan
Assistant Professors: A. Budiman, L. Lee
Instructors: S. Lemery, R. Speaks

Degrees Offered

- Master of Science in Manufacturing Engineering Technology
- Bachelor of Science in Manufacturing Engineering Technology
- Bachelor of Science in Mechanical Engineering
- Bachelor of Science in Mechanical Engineering Technology

Manufacturing Engineering Technology

Degrees Offered

- Master of Science in Manufacturing Engineering Technology
- Bachelor of Science in Manufacturing Engineering Technology

Program Mission Statement

The Manufacturing Engineering Technology Program at Oregon Institute of Technology is an applied engineering technology program. Its mission is to provide graduates with the skills and knowledge for successful careers in Manufacturing Engineering Technology.

Program Learning Outcomes

1. an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline;

2. an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;

3. an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;

4. an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes; and

5. an ability to function effectively as a member as well as a leader on technical teams.

Career Opportunities

Manufacturing Engineering graduates will find a wide range of opportunities for employment in manufacturing design, research and development, testing, educational institutions, consulting and business. Manufacturing Engineering Technology also prepares students for further study in graduate school. In today's engineering environment, manufacturing engineers are often called upon to perform a wide range of tasks, from designing and purchasing manufacturing equipment to improving and troubleshooting the manufacturing process. Manufacturing engineers are involved in the design and continuous improvement of products, manufacturing equipment and production tooling. The Manufacturing Engineering curriculum provides education in a variety of areas including manufacturing process, robotics and automation, industrial controls, manufacturing tool design, computer aided design and manufacturing, engineering materials, manufacturing planning and quality control. Technical Electives allow the student flexibility in developing technical breadth or focus in their areas of interest.

Bachelor Program Objectives

The objective of the Manufacturing Engineering Technology undergraduate program is to offer the student a quality education that provides the greatest possible opportunity for rewarding and successful careers. This includes practical training and technical education in engineering, manufacturing processes, and manufacturing equipment as well as supplemental coursework in business, communications, mathematics, science, and social science.

Master Program Objectives

The objective of the graduate program in Manufacturing Engineering Technology is to offer students an advanced manufacturing education that will help them to be successful in their professional career. This includes the theoretical and practical training in manufacturing systems, design for manufacturability, development of lean enterprise, quality engineering, computer-aided manufacturing, project management and information systems. The master's degree is also available online to students meeting the admission requirements for the program. There are no residency requirements for this degree.

Student Preparation

Students planning to enter the Manufacturing Engineering Technology Program are strongly encouraged to take mathematics and science training in high school. In addition, courses such as CAD, computer skills, and industrial arts will prove beneficial.

Note: The Manufacturing and Mechanical Engineering and Technology Department is a laptop-required department with resources like laptop specifications, financial aid, and helpful instructions found at http://www.oit.edu/portland-metro/college-costs/bring-your-own-device.

Cooperative Education Program

Students in the Bachelor of Science degree program have an opportunity to work in industry for a specified time and receive college credit. They are encouraged to meet with the Manufacturing Engineering Technology Undergraduate Program Director. Manufacturing Engineering Technology students at both the Klamath Falls and Portland-Metro campuses have the opportunity to participate in the state-wide MECOP internship program. For information, see the following Web site: https://mecopinc.org.

Accreditation

The Bachelor of Science in Manufacturing Engineering Technology program is accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

Mechanical Engineering

Degree Offered

- Bachelor of Science in Mechanical Engineering

Program Mission Statement

The Mechanical Engineering Bachelor of Science at Oregon Institute of Technology is an applied engineering program. Its mission is to provide graduates with the hands-on skills and academic knowledge for successful careers in mechanical engineering or related fields.

Program Learning Outcomes

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences

4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Career Opportunities

Mechanical Engineering is the broadest branch of engineering providing graduates the ability to pursue many varied career paths. It encompasses a wide variety of specialties including alternative energy, mechanical design, thermal/fluids/heat transfer, and mechatronics to name a few. Graduates will find a wide range of opportunities for employment in design, research and development, testing, manufacturing, government agencies, educational institutions, consulting and business. The Mechanical Engineering degree also prepares the student for further study in graduate school.

Objectives of the Program

The Mechanical Engineering Program at Oregon Institute of Technology provides an excellent theoretical and applied or hands on engineering education. The program provides graduates with a foundation in fundamentals, applications, design, project management, communications, and professional and ethical responsibility.

The program offers coursework in all of the above areas beginning with mathematics, science, machining, and computer aided design topics in the freshman year. Engineering science and physics courses are typically taken by the student in the sophomore year. Junior and senior curriculum is devoted to analysis, design, and testing aspects of mechanical engineering. Technical electives are available for students to pursue their particular fields of interest.

Throughout the four-year curriculum, emphasis is placed on oral and written communication skills, teamwork, and hands on laboratory and project work. Graduates are well-rounded engineers and readily accepted into industry or graduate programs.

Student Preparation

Students planning to enter the Mechanical Engineering curriculum should undertake Mathematics/science training in high school. Such courses as algebra, trigonometry, calculus, physics, chemistry, drafting, CAD, writing, speech, and shop classes will prove beneficial.

Note: The Manufacturing and Mechanical Engineering and Technology Department is a laptop-required department with resources like laptop specifications, financial aid, and helpful instructions found at http://www.oit.edu/portland-metro/college-costs/bring-your-own-device.

Cooperative Field Experience

There is an opportunity for students in the Bachelor of Science degree program to work in industry for a specified time and receive college credit. Those interested in such an opportunity are encouraged to work out the details with the Mechanical Engineering Program Director. Mechanical Engineering students at the Klamath Falls campus have the opportunity to participate in the state-wide MECOP internship program. For information, see the following Web site: https://mecopinc.org.

Accreditation

The Bachelor of Science in Mechanical Engineering program is accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

Mechanical Engineering Technology

Degree Offered

- Bachelor of Science in Mechanical Engineering Technology

Program Mission Statement

The Mechanical Engineering Technology Program at Oregon Institute of Technology is an applied engineering technology program. Its mission is to provide graduates with the skills and knowledge for successful careers in mechanical engineering and manufacturing engineering.

Program Learning Outcomes

1. an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline;

2. an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;

3. an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;

4. an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes; and

5. an ability to function effectively as a member as well as a leader on technical teams.

Career Opportunities

Mechanical Engineering Technology graduates find a wide range of opportunities for employment in design, research and development, testing, manufacturing, government agencies, educational institutions, consulting and business. The largest number of graduates are employed by manufacturing firms. There, the graduates may develop new products, improve existing products, modify existing products for easier manufacture, or develop equipment for use in the production process. The work done by Mechanical Engineering Technologists varies widely. Interfacing computers and machines is a rapidly growing area of employment. This involvement with robotics and automation is having an impact on most mechanical systems. New materials such as high strength ceramics and polymers, fiber reinforced plastics, and new bonding agents are growing in importance and their applications will offer many interesting and fulfilling careers. Energy systems become increasingly important as energy costs rise. Aerospace firms employ many Oregon Tech graduates in design, testing, and manufacturing. Careers in such traditional areas as power plants, heating and cooling systems, gas and steam turbines, and automotive systems are within the domain for the Mechanical Engineering Technologist.

Objectives of the Program

The objective of the Mechanical Engineering Technology Program is to ensure that graduates of this curriculum acquire competency in those theoretical, applied engineering and practical subjects necessary to become successful in their careers. The program strives to maintain a reputation for academic standards that will assure graduates a welcome by prospective employers.

Student Preparation

Students planning to enter the Mechanical Engineering Technology curriculum should undertake mathematics-science training in high school. Such courses as algebra, geometry, trigonometry, physics, chemistry, drafting, CAD, English, writing, speech, and shop classes will prove beneficial.

Note: The Manufacturing and Mechanical Engineering and Technology Department is a laptop-required department with resources like laptop specifications, financial aid, and helpful instructions found at http://www.oit.edu/portland-metro/college-costs/bring-your-own-device.

Cooperative Field Experience

There is an opportunity for students in the Bachelor of Science degree program to work in industry for a specified time and receive college credit. Those interested in such an opportunity are encouraged to work out the details with the Mechanical Engineering Technology program director. MET students at both the Klamath Falls and the Portland-Metro campuses have the opportunity to participate in the state-wide MECOP internship program. For information, see the following Web site: https://mecopinc.org.

Accreditation

The Bachelor of Science in Mechanical Engineering Technology program is accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

Manufacturing Engineering Technology, BS

The Bachelor of Science in Manufacturing Engineering Technology requires completing 180 credit hours, as prescribed in the following curriculum outline. Several of these courses are titled manufacturing elective, and allow the student some flexibility to pursue specific career objectives within the manufacturing engineering field. Upper-division manufacturing engineering technology courses not specifically required for graduation, as well as selected upper-division mechanical engineering technology courses and other approved courses, may be used as manufacturing electives. Students should contact their advisor for specific details as to which courses qualify as manufacturing electives.

Degree Requirements

The Bachelor of Science in Manufacturing Engineering Technology requires completing 192 credit hours, as prescribed in the following curriculum outline. Several of these courses are titled manufacturing elective, and allow the student some flexibility to pursue specific career objectives within the manufacturing engineering field. Upper-division manufacturing engineering technology courses not specifically required for graduation, as well as selected upper-division mechanical engineering technology courses and other approved courses, may be used as manufacturing electives. Students should contact their advisor for specific details as to which courses qualify as manufacturing electives.

Engineering Science Elective

In order to satisfy the engineering science elective, the student must complete one of the following courses:

- ENGR 212 - Engineering Mech: Dynamics Credit Hours: 3
- ENGR 355 - Thermodynamics Credit Hours: 3
- MECH 318 - Fluid Mechanics Credit Hours: 4

Curriculum

Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- ENGR 111 - MMET Orientation Credit Hours: 3
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
  Humanities/Social Science Elective Credit Hours: 3[a]
  Humanities/Social Science Elective Credit Hours: 3[a]
  Introduction to General Chemistry[b] Credit Hours: 3
  Introduction to General Chemistry Laboratory[b] Credit Hours: 1

Winter

- CHE 201 - General Chemistry I Credit Hours: 3
- CHE 204 - General Chemistry I Lab Credit Hours: 1
- MATH 112Z - Precalculus II: Trigonometry Credit Hours: 4
- MET 241 - CAD for Mechanical Design I Credit Hours: 2
- MFG 120 - Intro Machining Proc Credit Hours: 4

Spring

- MATH 251 - Differential Calculus Credit Hours: 4
- MET 242 - CAD for Mechanical Design II Credit Hours: 2
- COM 111Z - Public Speaking Credit Hours: 4
  Humanities/Social Science Elective Credit Hours: 3[a]

Sophomore Year

Fall

- MATH 252 - Integral Calculus Credit Hours: 4
- MECH 260 - Engineering Materials I Credit Hours: 3
- MFG 314 - Geom Dimension/Tolerance Credit Hours: 3
- PHY 221 - General Physics w/Calculus Credit Hours: 4
  Humanities/Social Science Elective Credit Hours: 3[a]

Winter

- ENGR 211 - Engineering Mechanics: Statics Credit Hours: 4 [c]
- MATH 361 - Statistical Methods I Credit Hours: 4

- MFG 112 - Intro to Mfg Processes Credit Hours: 3
- PHY 222 - General Physics w/Calculus Credit Hours: 4

Spring

- ENGR 213 - Engr Mech: Strength of Mat Credit Hours: 4
- ENGR 236 - Fund of Elec Circuits Credit Hours: 3
- ENGR 266 - Engineering Computation Credit Hours: 3
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4

Junior Year

Fall

- ENGR 326 - Electric Power Systems Credit Hours: 3
- MECH 315 - Machine Design I Credit Hours: 3
- MECH 360 - Engineering Materials II Credit Hours: 3
- MET 375 - Solid Modeling Credit Hours: 3
- MFG 313 - Mfg Analysis & Planning Credit Hours: 3
- MFG 341 - Numerical Control Prog Credit Hours: 3

Winter

- MECH 316 - Machine Design II Credit Hours: 3
- MECH 363 - Engineering Instrumentation Credit Hours: 3
- MFG 333 - Stat Methods Qual/Improv Credit Hours: 3
- MFG 342 - Computer Aided Machining Credit Hours: 3
- MFG 343 - Manufacturing Tool Dsgn Credit Hours: 3

Spring

- MFG 331 - Industrial Controls Credit Hours: 3
- MFG 344 - Dsgn of Mfg Tooling Credit Hours: 3
- SPE 321 - Small Group/Team Comm Credit Hours: 3
  Engineering Science Elective Credit Hours: 3[d]
  Project Management Requirement Credit Hours: 3[e]

Senior Year

Fall

- ANTH 452 - Globalization Credit Hours: 3
- ENGR 491 - MMET Senior Projects I Credit Hours: 3
- MFG 453 - Automation & Robotics Credit Hours: 3
- MFG 454 - Thermal Manufacturing Process Credit Hours: 3
- WRI 327 - Advanced Tech Writing Credit Hours: 3

Winter

- ENGR 492 - MMET Senior Projects II Credit Hours: 3
  Humanities Elective Credit Hours: 3
  MFG Elective Credit Hours: 3[f]
  MFG Elective Credit Hours: 3[f]

Spring

- ENGR 415 - Occupational Safety Credit Hours: 3
- ENGR 493 - MMET Senior Projects III Credit Hours: 3
- MECH 426 - Fluid Power Systems Credit Hours: 3
- MFG 447 - Lean Manufacturing Credit Hours: 3
  Humanities/Social Science Elective Credit Hours: 3[a]

Total for a B.S. in Manufacturing Engineering Technology: 180 Credit Hours

[a] Select 9 credits of Humanities electives and 9 credits of Social Science electives. ANTH 452 fulfills the remaining credits needed to satisfy the 12 credits of Social Science courses for the Baccalaureate general education requirements

[b] CHE 101 and CHE 104 should be taken if needed to adequately prepare for CHE 201 and CHE 204. Any credits earned from these courses (CHE101/104) do not apply to the degree program. Consult with an academic advisor for further guidance

[c] MECH 221, MECH 222, MECH 223 may be alternatively taken (as an entire sequence) to satisfy the ENGR 211 and ENGR 213 requirements

[d] Select **one** course from the following list: ENGR 212, ENGR 355, or MECH 318

[e] Select either ENGR 445 or MGT 335

[f] Consult with an academic advisor or program director regarding available and appropriate MFG elective courses. Certain ENGR, MECH, and MET upper-division courses not already required for the program are also acceptable.

Manufacturing Engineering Technology, MS

Degree Requirements

The Master of Science in Manufacturing Engineering Technology requires completing 45 credit hours of graduate work, with at least 30 credit hours of graduate coursework from the following four Curriculum Content Areas (CCAs):

1. Engineering Science and Design Technology
2. Manufacturing Software and Computer Integration
3. Advanced Manufacturing Materials and Processes Technology
4. Business, Financial and Management Processes

In addition to the 30 CCA credit hours, students must complete 12 credits toward thesis or 9 credits toward an approved project and three credits in graduate seminars. Students must take at least one course in each of the four CCAs and three courses in at least one CCA. All graduate courses are three credits each. See Master's student advisor to complete an academic plan.

Mechanical Engineering Technology, BS

Degree Requirements

In the curriculum listings appear several courses titled "MET Elective." MET electives allow the student to select and pursue specific career objectives within the mechanical engineering technology field. MET electives are upper-division MET courses, not specifically required for graduation.

Students from other institutions should refer to the sections of this catalog titled "Transfer Students" and "Admission to Baccalaureate Programs." The Bachelor of Science in Mechanical Engineering Technology requires 180 credit hours as prescribed in the following curriculum outline.

Curriculum

Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- CHE 201 - General Chemistry I Credit Hours: 3
- CHE 204 - General Chemistry I Lab Credit Hours: 1
- ENGR 111 - MMET Orientation Credit Hours: 3
- MATH 111Z - Precalculus I: Functions Credit Hours: 4
- WRI 121Z - Composition I Credit Hours: 4
  Psychology Elective Credit Hours: 3[a]

Winter

- MATH 112Z - Precalculus II: Trigonometry Credit Hours: 4
- MFG 120 - Intro Machining Proc Credit Hours: 4
  Humanities Elective Credit Hours: 3
  Social Science Elective Credit Hours: 3

Spring

- MATH 251 - Differential Calculus Credit Hours: 4
- COM 111Z - Public Speaking Credit Hours: 4
  Economics Elective Credit Hours: 3
  Humanities Elective Credit Hours: 3

Sophomore Year

Fall

- MATH 252 - Integral Calculus Credit Hours: 4
- MECH 260 - Engineering Materials I Credit Hours: 3
- MET 241 - CAD for Mechanical Design I Credit Hours: 2
- PHY 221 - General Physics w/Calculus Credit Hours: 4
- WRI 122Z - Composition II Credit Hours: 4
  or

- WRI 227Z - Technical Writing Credit Hours: 4

Winter

- ENGR 211 - Engineering Mechanics: Statics Credit Hours: 4 [b]
- MATH 254 - Vector Calculus I Credit Hours: 4
- MET 242 - CAD for Mechanical Design II Credit Hours: 2
- MFG 112 - Intro to Mfg Processes Credit Hours: 3
- PHY 222 - General Physics w/Calculus Credit Hours: 4

Spring

- ENGR 213 - Engr Mech: Strength of Mat Credit Hours: 4 [b]
- ENGR 266 - Engineering Computation Credit Hours: 3
- MATH 361 - Statistical Methods I Credit Hours: 4
- PHY 223 - General Physics w/Calculus Credit Hours: 4

Junior Year

Fall

- ENGR 236 - Fund of Elec Circuits Credit Hours: 3
- ENGR 355 - Thermodynamics Credit Hours: 3
- MECH 315 - Machine Design I Credit Hours: 3
- MECH 360 - Engineering Materials II Credit Hours: 3
- MET 375 - Solid Modeling Credit Hours: 3

Winter

- ENGR 212 - Engineering Mech: Dynamics Credit Hours: 3
- MECH 318 - Fluid Mechanics Credit Hours: 4
- MECH 316 - Machine Design II Credit Hours: 3
- MECH 363 - Engineering Instrumentation Credit Hours: 3
- SPE 321 - Small Group/Team Comm Credit Hours: 3

Spring

- MATH 321 - Appl Diff Equation I Credit Hours: 4
- MECH 313 - Thermodynamics II Credit Hours: 3
- MECH 351 - Finite Element Analysis Credit Hours: 3
- MFG 314 - Geom Dimension/Tolerance Credit Hours: 3

Senior Year

Fall

- ENGR 326 - Electric Power Systems Credit Hours: 3
- ENGR 491 - MMET Senior Projects I Credit Hours: 3

- MECH 323 - Heat Transfer I Credit Hours: 3
  MET Elective Credit Hours: 3[d]

Winter

- ENGR 492 - MMET Senior Projects II Credit Hours: 3
- MECH 437 - Heat Transfer II Credit Hours: 2
- WRI 327 - Advanced Tech Writing Credit Hours: 3
  MET Elective Credit Hours: 3[d]
  Social Science Elective Credit Hours: 3

Spring

- ENGR 493 - MMET Senior Projects III Credit Hours: 3
- MECH 426 - Fluid Power Systems Credit Hours: 3
- MFG 331 - Industrial Controls Credit Hours: 3
  Humanities Elective Credit Hours: 3
  MET Elective Credit Hours: 3[d]

Total for a B.S. in Mechanical Engineering Technology: 180 Credit Hours

[a] PSY 201Z is highly recommended

[b] MECH 221, MECH 222, and MECH 223 may be alternatively taken (as an entire sequence) to satisfy the ENGR 211 and ENGR 213 requirements

[d] Consult with an academic advisor or program director regarding available and appropriate MET elective courses. Certain ENGR, MECH and MFG upper-division courses not already required for the program **are also** acceptable

Mechanical Engineering Technology/Manufacturing Engineering Technology, BS

Concurrent Degree

The Mechanical and Manufacturing Engineering Technology Department provides the opportunity for the interested student to earn concurrent degrees in Manufacturing Engineering Technology (MFG) and Mechanical Engineering Technology (MET) or Mechanical Engineering (MECH). Students who earn both degrees are highly sought after and have been very successful in industry. The concurrent degree program usually requires the student to complete an additional year of study beyond the Bachelor's Degree in Mechanical Engineering or Mechanical Engineering Technology.

Fall

- MFG 313 - Mfg Analysis & Planning Credit Hours: 3
- MFG 341 - Numerical Control Prog Credit Hours: 3
- MFG 453 - Automation & Robotics Credit Hours: 3
- BUS/MGT Restricted Elective Credit Hours 3 [a]
- Manufacturing Elective Credit Hours: 3 [b]

Winter

- MFG 112 - Intro to Mfg Processes Credit Hours: 3 [c]
- MFG 333 - Stat Methods Qual/Improv Credit Hours: 3
- MFG 342 - Computer Aided Machining Credit Hours: 3
- MFG 343 - Manufacturing Tool Dsgn Credit Hours: 3
- MATH 362 - Statistical Methods II Credit Hours: 4

Spring

- ENGR 415 - Occupational Safety Credit Hours: 3
- MFG 331 - Industrial Controls Credit Hours: 3 [c]
- MFG 344 - Dsgn of Mfg Tooling Credit Hours: 3
- MFG 447 - Lean Manufacturing Credit Hours: 3
- Manufacturing Elective Credit Hours: 3 [b]

Mechanical Engineering, BS

Degree Requirements

In the curriculum listings appear several courses titled "MECH Elective." MECH electives allow the student to select and pursue specific career objectives within the mechanical engineering field. MECH electives are upper-division MECH courses, not specifically required for graduation.

Students from other institutions should refer to the sections of this catalog titled "Transfer Students" and "Admission to Baccalaureate Programs."

The Bachelor of Science in Mechanical Engineering requires 180 credit hours as prescribed in the following curriculum outline.

Curriculum

Required courses and recommended terms during which they should be taken:

Freshman Year

Fall

- CHE 201 - General Chemistry I Credit Hours: 3
- CHE 204 - General Chemistry I Lab Credit Hours: 1
- ENGR 111 - MMET Orientation Credit Hours: 3
- WRI 121Z - Composition I Credit Hours: 4
  Humanities/Social Science Elective Credit Hours: 3[a]
  College Algebra (if suggested by advisor)[b]

Winter

- CHE 202 - General Chemistry II Credit Hours: 3
- CHE 205 - General Chemistry II Lab Credit Hours: 1
- COM 111Z - Public Speaking Credit Hours: 4
  Humanities/Social Science Elective Credit Hours: 3[a]

Trigonometry (if suggested by advisor)[b]

Spring

- MATH 251 - Differential Calculus Credit Hours: 4
- MFG 120 - Intro Machining Proc Credit Hours: 4
- MET 241 - CAD for Mechanical Design I Credit Hours: 2
  Economics Elective Credit Hours: 3[a]

Sophomore Year

Fall

- MATH 252 - Integral Calculus Credit Hours: 4
- MECH 260 - Engineering Materials I Credit Hours: 3
- MET 242 - CAD for Mechanical Design II Credit Hours: 2
- PHY 221 - General Physics w/Calculus Credit Hours: 4
- WRI 122Z - Composition II Credit Hours: 4
  or
- WRI 227Z - Technical Writing Credit Hours: 4

Winter

- ENGR 211 - Engineering Mechanics: Statics Credit Hours: 4 [f]
- MATH 254 - Vector Calculus I Credit Hours: 4
- MFG 314 - Geom Dimension/Tolerance Credit Hours: 3
- PHY 222 - General Physics w/Calculus Credit Hours: 4

Spring

- ENGR 213 - Engr Mech: Strength of Mat Credit Hours: 4 [f]
- ENGR 236 - Fund of Elec Circuits Credit Hours: 3
- ENGR 266 - Engineering Computation Credit Hours: 3
- MATH 321 - Appl Diff Equation I Credit Hours: 4
- PHY 223 - General Physics w/Calculus Credit Hours: 4

Junior Year

Fall

- MATH 341 - Linear Algebra I Credit Hours: 4
- MECH 318 - Fluid Mechanics Credit Hours: 4
- MECH 363 - Engineering Instrumentation Credit Hours: 3
- MET 375 - Solid Modeling Credit Hours: 3
  Statistics Requirement Credit Hours: 4[c]

Winter

- ENGR 212 - Engineering Mech: Dynamics Credit Hours: 3
- ENGR 326 - Electric Power Systems Credit Hours: 3
- ENGR 355 - Thermodynamics Credit Hours: 3
- MECH 315 - Machine Design I Credit Hours: 3
- MECH 360 - Engineering Materials II Credit Hours: 3
- SPE 321 - Small Group/Team Comm Credit Hours: 3

Spring

- HUM 125 - Intro Tech, Soc, Value Credit Hours: 3
- MECH 313 - Thermodynamics II Credit Hours: 3
- MECH 316 - Machine Design II Credit Hours: 3
  MECH Elective Credit Hours: 3[d]

Senior Year

Fall

- ENGR 491 - MMET Senior Projects I Credit Hours: 3
- MECH 323 - Heat Transfer I Credit Hours: 3
- MECH 351 - Finite Element Analysis Credit Hours: 3
- WRI 327 - Advanced Tech Writing Credit Hours: 3
  Fluid Mechanics II Requirement Credit Hours: 3[e]

Winter

- ENGR 492 - MMET Senior Projects II Credit Hours: 3
- MECH 437 - Heat Transfer II Credit Hours: 2
- MECH 480 - Mechanical Vibrations Credit Hours: 3
- PHIL 331 - Ethics in the Professions Credit Hours: 3
  Humanities/Social Science Elective Credit Hours: 3[a]
  MECH Elective Credit Hours: 3[d]

Spring

- ENGR 493 - MMET Senior Projects III Credit Hours: 3
- MECH 436 - Classical Control Systems Credit Hours: 3
  Humanities /Social Science Elective Credit Hours: 3[a]
  MECH Elective Credit Hours: 3[d]

Total for a B.S. in Mechanical Engineering: 180 Credit Hours

[a] Along with HUM 125, PHIL 331, and an Economics course, another 3 credits of Humanities courses and 9 credits of Social Science courses. Furthermore, activity or performance-based Humanities courses are not accepted

[b] MATH 111Z and MATH 112Z should be taken if needed to adequately prepare for MATH 251. Any credits earned from these courses **do not** apply to the degree program. Consult with an academic advisor for further guidance

[c] Select either MATH 361 or MATH 465

[d] Consult with an academic advisor or program director regarding available and appropriate MECH elective courses. MFG and MET electives **are not** acceptable.

[e] Select either MECH 417 or MECH 418, depending upon which course is currently offered

[f] MECH 221, MECH 222, MECH 223 may be alternatively taken (as an entire sequence) to satisfy the ENGR 211 and ENGR 213 requirements

Mechanical Engineering/Manufacturing Engineering Technology, BS

Concurrent Degree

The Mechanical and Manufacturing Engineering Technology Department provides the opportunity for the interested student to earn concurrent degrees in Manufacturing Engineering Technology (MFG) and Mechanical Engineering Technology (MET) or Mechanical Engineering (MECH). Students who earn both degrees are highly sought after and have been very successful in industry. The concurrent degree program usually requires the student to complete an additional year of study beyond the Bachelor's Degree in Mechanical Engineering or Mechanical Engineering Technology.

Fall

- MFG 313 - Mfg Analysis & Planning Credit Hours: 3
- MFG 341 - Numerical Control Prog Credit Hours: 3
- MFG 453 - Automation & Robotics Credit Hours: 3
- BUS/MGT Restricted Elective Credit Hours 3 [a]
- Manufacturing Elective Credit Hours: 3 [b]

Winter

- MFG 112 - Intro to Mfg Processes Credit Hours: 3 [c]
- MFG 333 - Stat Methods Qual/Improv Credit Hours: 3
- MFG 342 - Computer Aided Machining Credit Hours: 3
- MFG 343 - Manufacturing Tool Dsgn Credit Hours: 3
- MATH 362 - Statistical Methods II Credit Hours: 4

Spring

- ENGR 415 - Occupational Safety Credit Hours: 3
- MFG 344 - Dsgn of Mfg Tooling Credit Hours: 3
- MFG 447 - Lean Manufacturing Credit Hours: 3
- MFG 331 - Industrial Controls Credit Hours: 3
- Manufacturing Elective Credit Hours: 3 [b]

Graduate Programs

Admissions and Academic Policies

Graduate degree programs at Oregon Institute of Technology provide students with opportunities for advanced study in various disciplines. Graduates will develop the competence required for leadership roles in professional fields. Graduate education at Oregon Tech maintains an applied focus. Our mission is to integrate theory and practice.

Admission

The Office of Admissions, in conjunction with the appropriate academic department, maintains all pertinent information regarding the admission of graduate students.

Admission Requirements

To be considered for admission to a graduate program, an applicant must have a baccalaureate degree from a regionally accredited college or university, as well as a scholastic record that evidences the ability to perform satisfactory graduate work. Specifically, a student shall:

- have completed a four-year college course of study and hold an acceptable baccalaureate degree from an institution accredited by a regional accrediting association
- be in good academic standing at the last college or university attended
- have attained a grade point average of at least 3.0 on a 4.0 scale for the last 90 term (60 semester) units attempted
- have attained a grade point average of at least 3.0 on a 4.0 scale for the last 45 term hours in the major
- satisfactorily meet the professional, personal, scholastic, and other standards for graduate study
- pass qualifying examinations required by specific programs

Unusual circumstances may warrant exceptions to these criteria.

Level of Course Work

All course work applied toward the master's degree must be earned in courses designed for graduate students; these courses are generally numbered 500 and above. Oregon Tech undergraduate seniors may enroll in 500 level graduate courses for graduate credit with the approval of the student's undergraduate advisor and the department chair. Nine credits are applicable to a graduate degree. Undergraduate seniors may enroll in graduate-level courses for undergraduate credit subject to each department's policy. Oregon Tech offers some courses which are dual listed at the 400- and 500-level. The 400-level courses apply only to an undergraduate degree, while 500-level courses apply only to a graduate degree. Students enrolled in a dual-listed 500-level course will be required to complete additional work for graduate credit. Students may audit graduate courses subject to the policy described in the General Catalog. Audited courses cannot be used to meet degree requirements.

Application as a Degree-Seeking U.S. Resident Student

Degree-seeking students must submit the following items to the Office of Admissions before the deadlines specified in the Application Deadlines section:

- an official admissions application, along with a $50 non-refundable application fee. The application fee is waived for applicants who are currently attending Oregon Tech or who graduated from Oregon Tech within the previous two years
- official transcripts from each post-secondary educational institution attended

Individual programs may have additional requirements. Applicants must submit all required items before admission to the graduate program will be considered. Submitting the items, however, does not ensure admission. Applicants will receive official notification of admission after a review of the application by the Office of Admissions and the graduate program department.

Application as an International Degree-Seeking Graduate Student

Oregon Tech must assess the academic preparation of international students. For this purpose, international students, including those who hold U.S. visas as student exchange visitors or other non-immigrant classifications, should apply early. Official transcripts must be on file at least eight weeks before registration for the first term and, if not written in English, must be accompanied by a certified English translation.

All international applicants from countries in which English is not the native language must take the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System exam (IELTS). A minimum score of 520 paper based TOEFL, 68 internet-based TOEFL or 6 IELTS is required for consideration. This requirement may be waived for some students whose primary language is English. Since the results of this test constitute part of the material reviewed for admission to graduate studies at Oregon Tech, students should arrange to have their test scores sent directly from the testing agency to the Office of Admissions well before the application deadline.

The following is an application checklist for degree-seeking international students:

1. submit the graduate application for admission with the $50 (U.S.) application fee
2. submit the international graduate student supplement to the graduate application form (as well as the Statement of Financial Responsibility form), available from the Admissions Office
3. provide evidence of ability to meet educational expenses at Oregon Tech. The Statement of Financial Responsibility form must be completed and submitted with documentation such as official bank statements and tax returns
4. official academic transcripts of all university course work sent to Oregon Tech
5. for university course work done outside the United States, transcripts must be reviewed by an evaluation service. There are several such services that are acceptable. A "course-by-course evaluation" or a "detail report" is necessary
6. proof of proficiency in the English language. Oregon Tech requires that international graduate students submit official test scores on the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System exam (IELTS). A minimum score of 520 paper-based TOEFL, 68 Internet-based TOEFL, or 6 IELTS is required for consideration. This requirement may be waived for some students whose primary language is English
7. students currently in the United States should submit a photocopy of the I-20 form and passport

Individual programs may have additional requirements.

Application Deadlines

Oregon Tech encourages all prospective students to submit graduate application materials six to nine months in advance of the planned enrollment date. This recommendation is especially important for international students in order to allow sufficient time for visa processing. However, applications will be accepted any time before the deadlines listed below. The recommended entrance time is fall term.

- Fall Term: April 1
- Winter Term: July 1
- Spring Term: October 1

Residency Classification

See the residency section of this catalog.

Tuition and Fees

See the tuition and fees section of this catalog.

Graduate Assistantships

Oregon Institute of Technology offers graduate assistantships, awarded on a competitive basis, to qualified graduate students based on department needs. Compensation varies with the type of service, the amount of time required for performing the service, and the academic qualifications and experience of the appointee. An applicant for a graduate assistantship must be admitted to a graduate program. Graduate departments usually award appointments and assistantships by Summer term, effective at the beginning of the next academic year. A graduate assistant application form is available from the appropriate department.

Types of Assistantships

Graduate assistantships (GAs) at Oregon Tech are either research assistantships (RAs) or teaching assistantships (TAs). Research assistantships are awarded by the faculty member administering the research grant and involve providing assistance in fulfilling the goals and objectives of the grant. Depending upon the grant, research assistantships may include additional support for summer term. If you are interested in a research assistantship, contact the faculty members responsible for the grant.

Teaching assistantships are awarded by the department and involve classroom and laboratory instruction. If you are interested in a TA, contact the individual department to determine availability.

Assistantship Offer

Assistantship notices of appointment are awarded on a term-by-term basis and renewal is dependent upon competent performance of assistantship duties, adequate academic progress, departmental needs, and the availability of funds. Assistantships may include a tuition waiver and/or a monthly stipend based upon a percentage of a full-time equivalent (FTE) salary.

Assistantship Course Load

Graduate assistants are expected to maintain full-time enrollment (nine credits). Graduate assistants not enrolled in nine credits of formal courses must supplement the course load with thesis or project credits to maintain full-time enrollment status.

Satisfactory Progress

Graduate assistants must make satisfactory progress toward a graduate degree to retain a graduate assistantship. Satisfactory progress includes:

- maintaining a 3.0 or higher grade point average
- maintaining full-time student enrollment

Failure to maintain satisfactory academic progress will result in loss of an assistantship.

Academic Policies

The Graduate Council determines graduate academic policies at Oregon Tech. Other academic policies and procedures are described and/or defined in the general policies of Oregon Tech.

Student Rights and Responsibilities

Oregon Tech encourages students to perform at a high academic level, and students are responsible for knowing degree requirements and enrolling in courses that will enable them to complete the master's program. Oregon Tech expects students to conduct themselves in a manner compatible with the university's function as an institution of higher learning. Students should acquaint themselves with regulations for the standard of work required to continue in the graduate school. For additional information, students should consult their graduate advisor.

Academic Integrity

Oregon Tech's goal is to foster an atmosphere that produces educated, literate graduates. Academic misconduct, such as cheating and plagiarism, will not be tolerated. Cheating includes, but is not limited to, the following:

- use of any unauthorized assistance in taking quizzes, tests or examinations
- dependence upon the aid of sources specifically prohibited by instructors in writing papers, preparing reports, solving problems or carrying out other assignments
- the acquisition, without permission, of tests or other academic materials belonging to a faculty member of the school

Plagiarism includes, but is not limited to, the use, by paraphrase or direct quotation, of the published or unpublished work of another person without acknowledging the source. Plagiarism occurs when a student either copies the work of another person and attempts to receive credit for that work or acquires and uses prepared material from someone who is selling academic materials. These examples are intended to provide general guidelines and are in no way comprehensive in describing academic dishonesty.

Faculty may assign specific penalties for cases of academic misconduct, including a failing grade for a test or assignment, a reduced grade for a test or assignment, or a failing grade in the course. Responding to academic dishonesty is the responsibility of the course instructor. If a student commits plagiarism or other academic dishonesty during the graduate project, the advisor, in consultation with the dean, determines the appropriate response.

All graduate students should acquaint themselves with the definitions and implications of academic misconduct as explained in Oregon Tech's student conduct code. Repercussions for a student guilty of academic conduct violations range from a warning to expulsion. Students may contest a charge of academic misconduct by following the grievance procedure outlined in the OIT catalog and the student handbook, available on the Oregon Tech Web site.

Student Records

The Registrar's Office maintains a permanent file for each graduate student. Faculty advisors will maintain a file of advising records, grade information and other correspondence pertaining to each graduate student's academic progress. For more information on student records, contact the Registrar's Office.

Enrollment Status

Full and part-time credit loads for graduate students are defined as follows:

- Full-time: 9 or more credits
- 3/4 time: 7 - 8 credits
- Half-time: 5 - 6 credits

Oregon Tech undergraduate seniors may enroll in 500-level graduate courses for graduate credit with the approval of the student's undergraduate advisor and the graduate program director.

Students who are not yet admitted to Oregon Tech may take up to one third of the graduate program credits as a non-admit student and apply them toward the graduate degree upon formal admission to the graduate program.

Oregon Tech offers some courses which are dual-listed at the 400- and 500-level. The 400-level courses apply only to an undergraduate degree, while 500-level courses apply to both undergraduate and graduate degrees. Students enrolled in a dual-listed 500-level course will be required to complete additional work to obtain graduate credit.

Continuous Enrollment for All Graduate Students

All graduate degree-seeking students must be continuously enrolled. Continuous enrollment is defined as completing, with grades assigned, a minimum of 1 hour of graduate credit every quarter.

Academic Prerequisite Deficiencies

Students who have prerequisite deficiencies for graduate studies may be required to take additional course work prior to completing their graduate studies, as determined by the graduate program director. If there are deficiencies, the director will recommend substitute courses, and these are entered on the Graduate Program Form. When students pass these courses with a B or better, they become fully qualified graduate students. Prior to completion of the listed courses, the graduate student is considered "provisionally admitted."

Academic Performance Standards

Students must maintain a cumulative GPA of 3.0 or better in all graduate work specific to the program of study to remain in good academic standing. Grades below C do not meet requirements for a graduate degree.

Graduate students earning a cumulative GPA of less than 3.0 will be placed on probation and, if no improvement is made, will be suspended from the graduate program. Conditions established for probation and suspension are listed below:

Academic Probation: Students having 9 or more attempted credit hours will be placed on academic probation for each term that their cumulative GPA falls below 3.0.

Academic Suspension: A student on probation must maintain a term GPA of 3.0 or higher to avoid academic suspension. A student will be suspended if the student's term GPA falls under 3.0 while on probation. Suspended students lose their institutional financial aid, including graduate research and teaching assistantships. A student may appeal academic suspension by following the process outlined in the Oregon Tech catalog. A successful appeal results in probation status.

Transfer Credits

Students may petition to transfer up to one third of the program graduate term hours earned at other accredited institutions and apply those credits toward an Oregon Tech graduate degree. However, each course must be consistent with the program of study planned by the student and the graduate advisor. Only grades of A and B are acceptable as transfer credit into the graduate program.

Grading Policy

Oregon Tech uses a 4.0 grading scale to evaluate student performance. Upon completion of a course or upon termination of attendance in the course, a student's performance will be graded by the instructor and reported to the Registrar's Office.

Requirements

Graduate degree academic requirements are specified by the program. The student, in conference with the graduate faculty advisor, will prepare a program of study for the graduate degree as a guide for planning an academic schedule.

Application for Graduation

To apply for graduation, the student must submit a petition for graduation to the Registrar's Office two terms in advance of the anticipated final term of work. The petition is a record of the approved program of study. To receive favorable action, candidates must meet the following requirements:

- show that course requirements for the master's degree will be satisfied before or during the final term
- maintain an overall grade point average of at least 3.0
- provide evidence of passing any qualifying or comprehensive examinations, including defense of the master's project or thesis
- obtain approval of both the student's academic advisor and department chair, or by the program director or other faculty member in the event that the student's academic advisor is the department chair

Right of Appeal

Philosophy of Policy Application

The graduate student academic grievance procedure provides a mechanism for exchanging information between student and instructor in cases of grade dispute and a safeguard against unfair grading practices. The intent is to provide an informal forum for discussing and resolving differences of opinion.

Academic Disputes Appealable by Policy

Student claims that final course grade resulted from:

1. unfair or prejudicial treatment by instructor
2. unusual or irregular procedures that impacted an individual student's grade in a disproportionate manner
3. dismissal from a professional program or externship because of failure to meet prerequisite or sequential course requirements

Note: The student should initiate appeals of final grades or professional academic standing within three weeks after distribution of final course grades or dismissal notice. The appropriate academic dean will not consider appeals after that time limit unless the student was incommunicado with the campus or unable to obtain grades after distribution because of academic assignment, or unusual events associated with grading procedure or completion of assignments made it impossible for the student to receive or appeal the grade in a timely manner.

Academic and Related Disputes Not Appealable by Policy

1. Grades assigned to tests, quizzes, homework, papers, projects, or other components of a course
2. Final grades based on failure to meet published (via syllabus) standards for the course that involves no unusual or prejudicial treatment
3. Disciplinary or other student conduct matters not specifically covered above
4. Challenges to the instructor's grading system or components thereof, as long as the system was made available to students at the beginning of the academic term

Procedure

1. Student reads policy to determine if grievance is appealable

2. Student makes appointment to discuss dispute with course instructor. Since reconciliation of the dispute at this level is in the best interests of all parties, instructors and students are urged to engage in an honest and open-minded effort to resolve the problem
3. Failing to resolve the dispute with the instructor, the student makes an appointment with the program director and department chair. The student and the instructor document the dispute in writing and bring this to the meeting. Department chair and program director should confer with instructor before consultation with the student. Department chair decides dispute based on available information.
4. If the student disagrees with the decision, s/he may request an appointment with the appropriate dean. The appropriate dean will not see students unless they have followed the preceding steps. If the course instructor is the department chair, the second level of appeal is the appropriate academic dean. The appropriate dean contacts the department chair and program director, and, when appropriate, the course instructor, to obtain information about the dispute. After consultation with the department and the student, the appropriate academic dean offers the student the choice of a summary decision or the opportunity for a hearing with the Graduate Council.

Summary Decision by Academic Dean

If the appropriate academic dean summarily decides the dispute, the grievance is terminated and the department chair, program director, instructor, and the student are notified in writing. If a grade change results, the Registrar's Office is also notified in writing.

Graduate Council Hearing

If the student elects to have the dispute referred to the Graduate Council,

1. The student must prepare a written request, summarizing the reasons for a hearing and the requested intervention (e.g., change of grade, reinstatement), with supporting documentation attached. The request is presented to the academic dean within three academic days after discussion with the dean.
2. The council schedules a hearing at the earliest time mutually available, normally within five academic days after the academic dean receives the request.
3. The department chair and program director receive a copy of the student request and supporting documentation.
4. The Graduate Council chair convenes the hearing and considers the presentations of student and instructor. Either may call witnesses to offer supporting information. The student has the right to have an advisor or attorney. The advisor may be at the student's side, and the student may consult with the advisor, but the advisor may not address or question the council.
5. The council formulates and sends a recommendation, supported by a rationale, to the academic dean. It may include a majority and minority report, if appropriate.
6. After careful consideration of the council's findings, the academic dean renders a final decision and notifies the council, department chair, program director, instructor and student. If the outcome is a grade change, the academic dean notifies the Registrar's Office.

Time Limits

Graduate students are allowed five years to complete all the requirements for a master's degree. Under extenuating circumstances, students may request an extension. The extension must be approved by the Program Director, the Department Chair, and the Associate Provost.

Course Descriptions

Course descriptions in this section are reasonable summaries only and are neither completely inclusive nor completely exclusive of total course content for any given course.

Courses listed herein may or may not be offered each term.

Courses are listed alphabetically according to prefix.

Numbering Code

Courses are grouped into a three-digit number series which indicates the normal teaching levels. Some variations may occur.

1-99 Preparatory and Developmental Courses. Courses numbered below 100 are not applicable toward a degree even though units are assigned, grades are awarded and tuition is assessed.

Lower-Division Courses (freshman and sophomore)
100-199 First-Year Courses
200-299 Second-Year Courses

Upper-Division Courses (junior and senior)
300-399 Third-Year Courses
400-499 Fourth-Year Courses

Graduate Courses
500-599 Graduate Courses

Other Codes

Each Term:

Some courses in this section have a code following the course title. This code designates when the course will be offered. F indicates Fall, W indicates Winter, S indicates Spring, Su indicates Summer.

For more information, see Baccalaureate General Education Requirements

Courses with the following notation fulfill the appropriate general education requirements:
C - Communication H - Humanities HP - Humanities Performance SS - Social Science

Special Terms

As Required: This term designates a course or series of courses which will be offered only as enrollment, student interest, or individual department needs demand and as staffing allows. A course so designated may be offered if special student needs, situations of extreme hardship, or other unusual circumstances deem it in the best interest of both the student(s) and the institution to do so.

Hours to be Arranged Each Term: Normally students negotiate individually with faculty members and/or departments and arrange to have courses so designated offered for the term most suitable to their unique situation.

Corequisite: A course that must be taken simultaneously with another course. Corequisites are noted at the end of each course description.

Prerequisite: A course that must be passed satisfactorily before another course may be taken. Prerequisites are noted at the end of each course description. Courses transferred in to Oregon Tech with a C- or better meet the prerequisite requirement of obtaining a C or better.

Quarter Credit: A credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than:

1. One hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks for one semester or trimester hour of credit, or ten to twelve weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time; or
2. At least an equivalent amount of work as required in paragraph (1) of this definition for other academic activities as established by the institution, including laboratory work, internships, practicals, studio work, and other academic work leading to the award of credit hours.

A numerical credit value assigned to certain number of lecture or laboratory hours. A lecture class meeting for three 50-minute periods a week would be assigned three units of credit. Students have traditionally been expected to spend an additional six hours of outside class work per week for each three units of lecture class credit. Generally, a lab class requires three hours per week for one unit of credit, or a total of nine in-lab hours with no additional outside class work expected for three units of lab class credit.

Reading and Conference: A course taken on an independent study basis with the supervision of an instructor, usually consisting of weekly conferences, assigned readings, research papers, etc.

Seminar: A class taught by a group discussion process rather than by means of formal lecture. Student research and reporting are usually expected.

Sequence: A series of classes in the same subject area that, taken as a whole, comprise a full year's work. Generally, course sequences are numbered consecutively, and often (though not always) should be taken in the numerical order listed (i.e., CHE 201 should be taken before CHE 202, etc.).

Applied Behavior Analysis

ABA 501 - ABA Colloquium

ABA 502 - Intro to Training, Science, & Practice of ABA I

ABA 503 - Intro to Training, Science, Practice of ABA II

ABA 504 - Intro to Training, Science & Practice of ABA

ABA 507 - Seminar

ABA 511 - Foundations of ABA

ABA 512 - Foundations of ABA II

ABA 515 - Basic Behavior Analysis

ABA 516 - ABA and Human Development

ABA 521 - Ethics

ABA 522 - Ethics & Professional Issues II

ABA 524 - Observations and Measurements

ABA 525 - Research Methods in ABA

ABA 526 - Behavioral Assessment I

ABA 527 - Behaviorism

ABA 531 - Decreasing Behavior

ABA 532 - Increasing Behavior

ABA 535 - Special Topics in ABA

ABA 536 - Behavior, Physiology, and Pharmacology

ABA 546 - Behavioral Assessment II

ABA 547 - Supervision and Management

ABA 565 - Organizational Behavior Management

ABA 566 - ABA and Education

ABA 581 - Clinical Skills I

ABA 582 - Clinical Skills II

ABA 583 - Clinical Skills III

ABA 598 - Practicum

ABA 599 - Thesis

Academic Success

ACAD 101 - Student Success Sem

ACAD 107 - Seminar

ACAD 207 - Seminar

ACAD 307 - Seminar

ACAD 407 - Seminar

Accounting

ACC 107 - Seminar

ACC 205 - Computerized Accounting

ACC 207 - Seminar

ACC 305 - Accounting Info Sys

ACC 307 - Seminar

ACC 320 - Cost Accounting I

ACC 321 - Cost Accounting II

ACC 325 - Finance

ACC 331 - Interm Accounting I

ACC 332 - Interm Accounting II

ACC 333 - Interm Accounting III

ACC 407 - Seminar

ACC 411 - Income Tax Procedures

ACC 412 - Corporate Taxation

ACC 431 - Advanced Accounting I

ACC 432 - Advanced Accounting II

ACC 435 - Auditing

ACC 496 - Senior Project

ACC 497 - Senior Project

BA 211Z - Principles of Financial Accounting

BA 212 - Prin of Accounting II

BA 213Z - Principles of Managerial Accounting

Allied Health Education

AHED 107 - Seminar

AHED 207 - Seminar

AHED 307 - Seminar

AHED 407 - Seminar

AHED 450 - Instructional Methods

AHED 451 - Instructional Experience

AHED 460 - Fund of Distance Education

Allied Health

ALH 505 - Intro to IT for Hlth Care Pros

ALH 506 - Program Administration

ALH 508 - Medical Ed. Theories & Methods

ALH 509 - Masters Capstone Project

ALH 510 - The Science of Evidence-Based Medicine

ALH 515 - Scientific Writing & Healthcare

ALH 525 - Effective Healthcare Ldshp.

ALH 535 - Assmt. Plan. Imp. and Eval.

ALH 545 - Pertinent Ethical & Legal Cons

ALH 555 - Leadership Theory for HC Ldrs.

ALH 565 - Population Health Issues for Allied Health Professionals

ALH 575 - Methods of Research for Allied Health Professionals

ALH 585 - Financial Consid. & Pol. Strat

ALH 595 - Curriculum Design for AHP

Anthropology

ANTH 101 - Intro to Physical Anthropology

ANTH 102 - Intro to Archaeology

ANTH 103 - Intro to Cultural Anthropology

ANTH 107 - Seminar

ANTH 207 - Seminar

ANTH 307 - Seminar

ANTH 407 - Seminar

ANTH 452 - Globalization

Art

ART 107 - Seminar

ART 205 - Introduction to Watercolors

ART 207 - Seminar

ART 215 - Design Arts and Aesthetics

ART 220 - Basic Drawing

ART 226 - Digital Photography

ART 282 - Intro to Acrylic Painting

ART 307 - Seminar

ART 315 - Design Thinking

ART 407 - Seminar

Biology

BIO 101 - Intro to Cell Biology

BIO 102 - Diversity of Life

BIO 103 - Intro to Human Anat & Phys

BIO 107 - Seminar

BIO 109 - Intro to Medical Sciences

BIO 135 - Prep for Human A&P

BIO 200 - Medical Terminology

BIO 205 - Nutrition

BIO 207 - Seminar

BIO 209 - Current Research Tpc Med Sci I

BIO 211 - Principles of Biology

BIO 212 - Principles of Biology

BIO 213 - Principles of Biology

BIO 216 - Intro to Veterinary Medicine

BIO 220 - Cardiovascular Physiology

BIO 226 - Intro to Wildlife Rehab

BIO 227 - Intro to Forensic Science

BIO 231 - Human Anatomy/Physiology I

BIO 232 - Human Anatomy/Physiology II

BIO 233 - Human Anatomy/Physiology III

BIO 234 - Microbiology

BIO 234 - Microbiology

BIO 235 - Human Genetics

BIO 247 - Forensic Anthropology

BIO 255 - Sophomore Research Class

BIO 301 - International Study Experience in Ecology & Sustainability (ISEES) I

BIO 302 - International Study Experience in Ecology & Sustainability (ISEES) II

BIO 307 - Seminar

BIO 313 - Botany and Plant Taxonomy

BIO 326 - Parasitology

BIO 331 - Human Anatomy/Physiology I

BIO 332 - Human Anatomy/Physiology II

BIO 333 - Human Anatomy/Physiology III

BIO 335 - Cross-Sectional Anatomy

BIO 336 - Essentials of Pathophysiology

BIO 337 - Aquatic Ecology

BIO 341 - Medical Genetics

BIO 345 - Medical Microbiology

BIO 346 - Pathophysiology I

BIO 347 - Pathophysiology II

BIO 352 - Developmental Biology

BIO 354 - Environmental Health

BIO 355 - Junior Research Class

BIO 357 - Intro to Neuroscience

BIO 366 - Zoology

BIO 369 - Mammalogy

BIO 375 - Cross Sectional Anatomy II

BIO 377 - Wildlife Ecology and Management

BIO 386 - Ornithology

BIO 407 - Seminar

BIO 409 - Crnt Rsch Tpcs in Med Sci II

BIO 417 - Plant Ecology

BIO 426 - Evolutionary Biology

BIO 427 - Special Topics in Neuroscience

BIO 428 - Fisheries

BIO 434 - Data Analysis Methods

BIO 435 - Exercise Physiology

BIO 436 - Immunology

BIO 438 - Conservation Biology

BIO 441 - Genetic Engineering & Gene Therapy

BIO 442 - Biological Physics

BIO 443 - Cell Biology

BIO 445 - Comparative Virology

BIO 446 - Pathophysiology I

BIO 447 - Pathophysiology II

BIO 452 - Developmental Biology

BIO 454 - Environmental Health

BIO 455 - Senior Research Class

BIO 461 - Human Cadaver Dissection

BIO 462 - Human Cadaver Dissection

BIO 467 - BioMedical Devices

BIO 495 - Research Project in Biology

BIO 501 - Introduction to Graduate Studies

BIO 509 - Introduction to Biomedical Sciences

BIO 510 - Current Issues in Biomedical Sciences

BIO 511 - Foundations in Conservation

BIO 512 - Current Issues in Natural Resources

BIO 517 - Plant Ecology

BIO 522 - Introduction to Neuroscience

BIO 526 - Evolutionary Biology

BIO 527 - Special Topics in Neuroscience

BIO 534 - Advanced Data Analysis

BIO 535 - Exercise Physiology

BIO 536 - Immunology

BIO 537 - Advanced Data Analysis II

BIO 538 - Conservation biology

BIO 541 - Genetic Engineering & Gene Therapy

BIO 542 - Biological Physics

BIO 543 - Cell Biology

BIO 545 - Comparative Virology

BIO 546 - Pathophysiology I

BIO 547 - Pathophysiology II

BIO 552 - Developmental Biology

BIO 554 - Environmental Health

BIO 561 - Human Cadaver Dissection

BIO 562 - Human Cadaver Dissection

BIO 567 - Plant Ecology

BIO 585 - Ecoregional Studies

BIO 595 - Graduate Research/Thesis

BIO 596 - Biomedical capstone

BIO 597 - Internship/shadowing

Business

BA 101Z - Introduction to Business

BUS 107 - Seminar

BUS 207 - Seminar

BUS 215 - Principles of Management

BUS 223 - Marketing I

BUS 226 - Business Law

BUS 304 - Engineering Management

BUS 307 - Seminar

BUS 308 - Prin of International Business

BUS 313 - Health Care Systems & Policy

BUS 314 - Entrepreneurship I

BUS 316 - Total Quality Health Care

BUS 317 - Health Care Management

BUS 318 - Marketing II

BUS 319 - Integrated Marketing Comm.

BUS 326 - Sales/Sales Management

BUS 331 - Personal Finance

BUS 335 - Entrepreneurship II

BUS 337 - Prin of Health Care Marketing

BUS 349 - Human Resource Management I

BUS 356 - Business Presentations

BUS 375 - Experience Business Abroad I

BUS 390 - Applied Management Internship

BUS 397 - Human Resource Management II

BUS 399 - Marketing Special Topics

BUS 407 - Seminar

BUS 414 - Marketing Research

BUS 420 - Applied Management Internship

BUS 434 - Global Marketing

BUS 435 - Marketing III

BUS 441 - Leadership I

BUS 442 - Leadership II

BUS 447 - Controversial Issues in Mgmt

BUS 456 - Business Research Methods

BUS 457 - Business Research Methods II

BUS 467 - Service Management

BUS 473 - Marketing Plan Development

BUS 475 - Experience Business Abroad II

BUS 478 - Strategic Management

BUS 480 - Capstone Experience

BUS 495 - Senior Project Proposal

BUS 496 - Senior Project

BUS 497 - Senior Project

BUS 507 - Seminar

Civil Engineering

CE 107 - Seminar

CE 203 - Engineering Graphics

CE 205 - Computational Methods

CE 207 - Seminar

CE 212 - Civil Engineering Materials

CE 307 - Seminar

CE 308 - Princ of Professional Practice

CE 311 - Intro to Geotechnical Engr

CE 312 - Earth Pressures & Foundations

CE 331 - Structural Analysis

CE 341 - Elementary Structural Design

CE 351 - Intro to Transportation Engr

CE 354 - Traffic Engineering

CE 371 - Closed Conduit Design

CE 374 - Hydrology

CE 401 - Civil Engineering Project I

CE 402 - Civil Engineering Project II

CE 403 - FE Exam Preparation

CE 405 - Sustainability & Infrastruct

CE 407 - Seminar

CE 412 - Seismic Engineering

CE 424 - Advanced Soil Mechanics

CE 432 - Struc Loading & Lat. Forces

CE 433 - Structural Matrix Analysis

CE 434 - Advanced Solid Mechanics

CE 435 - Structural Dynamics

CE 439 - Highway Bridge Rating

CE 442 - Adv Reinforced Concrete Design

CE 444 - Intermediate Steel Design

CE 447 - Masonry Design

CE 448 - Timber Design

CE 449 - Bridge Design

CE 450 - Transportation Structures

CE 455 - Bicycle & Pedestrian Transportation

CE 456 - Pavement Engineering

CE 458 - Transportation Safety Analysis

CE 481 - Environmental Engineering I

CE 499 - Independent Studies

CE 501 - Civil Engr Graduate Seminar

CE 507 - Seminar

CE 512 - Seismic Engineering

CE 524 - Advanced Soil Mechanics

CE 533 - Structural Matrix Analysis

CE 534 - Advanced Solid Mechanics

CE 535 - Structural Dynamics

CE 539 - Highway Bridge Rating

CE 549 - Bridge Design

CE 550 - Transportation Structures

CE 555 - Bicycle & Pedestrian Transportation

CE 556 - Advanced Pavement Design

CE 558 - Transportation Safety Analysis

CE 590 - Civil Engineering Grad Project

CE 595 - Graduate Thesis

CE 599 - Independent Studies

Chemistry

CHE 101 - Intro to General Chemistry

CHE 102 - Intro to Organic Chemistry

CHE 103 - Intro to Biochemistry

CHE 104 - Intro to General Chemistry Lab

CHE 105 - Intro to Organic Chemistry Lab

CHE 106 - Elementary Chemistry Lab

CHE 107 - Seminar

CHE 201 - General Chemistry I

CHE 202 - General Chemistry II

CHE 203 - General Chemistry III

CHE 204 - General Chemistry I Lab

CHE 205 - General Chemistry II Lab

CHE 206 - General Chemistry III Lab

CHE 207 - Seminar

CHE 210 - Clinical Pharmacology

CHE 221 - General Chemistry I

CHE 222 - General Chemistry II

CHE 223 - General Chemistry III

CHE 255 - Sophomore Research Class

CHE 260 - Electrochemistry for RE Applic

CHE 305 - Nanoscience & Nanotech

CHE 307 - Seminar

CHE 315 - Environmental Analytical Chemistry

CHE 325 - Soil Science

CHE 331 - Organic Chemistry I

CHE 332 - Organic Chemistry II

CHE 333 - Organic Chemistry III

CHE 335 - Bioorganic Chemistry

CHE 341 - Instr Methods/Data Acqustn I

CHE 342 - Instr Methods/Data Acqustn II

CHE 345 - Corrosion Chemistry

CHE 346 - Corrosion Chemistry Lab

CHE 350 - Clinical Pharmacology/NMT

CHE 355 - Junior Research Class

CHE 360 - Clinical Pharmacology/Hlth Prf

CHE 407 - Seminar

CHE 450 - Biochemistry I

CHE 451 - Biochemistry II

CHE 452 - Biochemistry III

CHE 455 - Senior Research Class

CHE 465 - Fate/Transport of Pollutants

CHE 495 - Research Project in Chemistry

CHE 550 - Biochemistry I

CHE 551 - Biochemistry II

CHE 552 - Biochemistry III

CHE 565 - Fate and Transport of Pollutants

Communication

COM 100Z - Introduction to Communication

COM 104 - Intro to the Communication Studies Major

COM 105 - Intro to Communication Theory

COM 106 - Introduction to Comm Research

COM 107 - Seminar

COM 109 - Intro to Communication Tech

COM 111Z - Public Speaking

COM 115 - Intro to Mass Communication

COM 135 - Communication Software

COM 205 - Intercultural Comm

COM 207 - Seminar

COM 215 - Creativity in Comm

COM 216 - Essen of Grammar & Punctuation

COM 218Z - Interpersonal Communication

COM 226 - Nonverbal Communication

COM 237 - Intro to Visual Communication

COM 248 - Digital Media Production

COM 255 - Communication Ethics

COM 256 - Public Relations

COM 276 - Democracy and Media

COM 301 - Rhetorical Theory & Application

COM 307 - Seminar

COM 309 - Communication Tech in Use

COM 320 - Advanced Intercultural Comm

COM 325 - Gender and Communication

COM 326 - Communication Research

COM 336 - Nonverbal Communication

COM 345 - Organization Comm I

COM 346 - Health Communication

COM 347 - Negotiation & Conflict Resol'n

COM 348 - Facilitation

COM 358 - Communication and the Law

COM 365 - Electronic Comm & Society

COM 401 - Civil Engineering Project I

COM 407 - Seminar

COM 420 - Externship

COM 421 - Senior Project I

COM 422 - Senior Project II

COM 423 - Senior Project III

COM 424 - Capstone Course

COM 425 - Mediation

COM 426 - Mediation Practicum

COM 437 - Comm Training & Devpmt

COM 445 - Organiz'l Communication II

COM 446 - Communication & Leadership

Clinical Sleep Health

CSH 201 - Human Development and Sleep Health

CSH 220 - Sleep Disord & Co-Morbid

CSH 255 - Oral Appliances for Sleep Apnea

Computer Systems Engineering Technology

CST 107 - Seminar

CST 116 - C++ Programming I

CST 120 - Embedded C

CST 126 - C++ Programming II

CST 130 - Computer Organization

CST 131 - Computer Architecture

CST 133 - Digital Logic II

CST 134 - Instrumentation

CST 136 - OOP with C++

CST 162 - Digital Logic I

CST 204 - Intro to Microcontrollers

CST 207 - Seminar

CST 211 - Data Structures

CST 223 - Concepts of Programming Lang

CST 229 - Introduction to Grammars

CST 231 - Digital Systems Design I

CST 236 - Engineering for Quality Software

CST 238 - GUI Programming

CST 240 - Linux Programming

CST 250 - Computer Assembly Lang

CST 262 - Digital Design Using HDL

CST 276 - Software Design Pattern

CST 307 - Seminar

CST 315 - Embedded Sensor Inter & I/O

CST 316 - JR Team-Based Proj Dev I

CST 320 - Compiler Methods

CST 321 - Intro to Microprocessors

CST 324 - Database Systems and Design

CST 326 - JR Team-Based Proj Dev II

CST 331 - Microproc Periph Interfacing

CST 334 - Project Proposal

CST 336 - JR Team-Based Proj Dev III

CST 337 - Embedded System Architecture

CST 340 - Advanced UNIX

CST 344 - Interm Computer Arch

CST 347 - Real Time Embedded Op Systems

CST 351 - Digital Systems Design II

CST 352 - Operating Systems

CST 356 - Web Design and Development

CST 371 - Embedded Systems Development I

CST 372 - Embedded Systems Develop II

CST 373 - Embedded Systems Develop III

CST 374 - Embedded Project Proposal

CST 405 - Directed Study

CST 407 - Seminar

CST 412 - Senior Development Proj

CST 415 - Computer Networks

CST 417 - Embedded Networking

CST 418 - Data Comm & Networks

CST 420 - Effective C++ & STL

CST 422 - Sr Development Project

CST 426 - Intro to Artif Intell

CST 432 - Senior Development Proj

CST 442 - Adv Comp Architecture

CST 455 - System on a Chip Design

CST 456 - Embedded System Testing

CST 465 - Web Development with ASP.NET

CST 466 - Embedded System Security

CST 471 - Embedded Senior Project

CST 472 - Embedded Senior Project

CST 473 - Embedded Senior Project

CST 475 - Big-Data Analysis

CST 490 - Co-op Field Practice

Cybersecurity

CYB 201 - Cybersecurity Fundamentals

CYB 301 - Hacker Tools and Techniques

CYB 302 - System Defenses and Incident Response

CYB 303 - Security Operations and Analysis

CYB 351 - Network Security

CYB 411 - Managing Risk in Information Systems

Dental Hygiene

DH 107 - Seminar

DH 207 - Seminar

DH 221 - Clinical Prac & Seminar I

DH 222 - Clinical Prac & Seminar II

DH 223 - Clinical Prac & Seminar III

DH 225 - Head/Neck Anat, Histol, Embry

DH 240 - Prevention I

DH 241 - Prevention II

DH 242 - Prevention III

DH 244 - General and Oral Pathology

DH 252 - Oral Radiology I

DH 253 - Oral Radiology II

DH 254 - Introduction to Periodontology

DH 266 - Dental Anatomy

DH 267 - Emergency Procedures

DH 275 - Dental Ethics

DH 299 - Laboratory Practice

DH 307 - Seminar

DH 321 - Clinical Prac & Sem IV

DH 322 - Clinical Prac & Sem V

DH 323 - Clinical Prac & Sem VI

DH 340 - Emerging Oral Health Topics

DH 341 - Vulnerable Populations

DH 344 - Adv General & Oral Pathology

DH 351 - Pain Management I

DH 352 - Pain Management II

DH 354 - Periodontology

DH 360 - Pharmacology for Dental Hygiene

DH 363 - Dental Materials

DH 370 - International Extrnshp I

DH 371 - International Extrnshp II

DH 372 - International Extrnshp III

DH 380 - Community Health I

DH 381 - Comm Dentl Hlth II

DH 382 - Comm Dentl Hlth III

DH 399 - Lab Practice

DH 401 - Overview Advanced Dental Hyg

DH 405 - Pharmacology Review for Dental Hygiene

DH 407 - Seminar

DH 421 - Clinical Prac & Sem VII

DH 422 - Clinical Prac & Sem VIII

DH 423 - Clinical Prac & Sem IX

DH 430 - Dental Hyg Board Review

DH 454 - Dental Prac Mgmt

DH 461 - Restorative Dentistry I

DH 462 - Restorative Dentistry II

DH 463 - Restorative Dentistry III

DH 465 - Independent Dental Hygiene Practice

DH 467 - Restorative Func Endorsement

DH 470 - Community Program Planning I

DH 475 - EBDM in Healthcare

DH 476 - Applied Research Concepts

DH 499 - Laboratory Practice

DHE 100 - Introduction to Dental Hygiene I

Diagnostic Medical Sonography

DMS 107 - Seminar

DMS 207 - Seminar

DMS 223 - App of Abdominal Sonogr I

DMS 224 - App of Abdominal Sonogr II

DMS 225 - App of Abdominal Sonogr III

DMS 234 - Pelvic Sonography

DMS 252 - Sophomore Lab I

DMS 253 - Sophomore Lab II

DMS 254 - Sophomore Lab III

DMS 307 - Seminar

DMS 316 - Survey of Vascular Tech

DMS 337 - Breast Sonography

DMS 343 - Neonatal/Pediatric Sonography

DMS 346 - Musculoskeletal Sonography

DMS 352 - Junior Lab I

DMS 353 - Junior Lab II

DMS 354 - Junior Lab III

DMS 365 - Sonographic Pathology

DMS 370 - Obstetrical Sonography

DMS 373 - Obstetrical Pathology

DMS 375 - Fetal Echocardiography

DMS 388 - Externship Preparation

DMS 407 - Seminar

DMS 430 - DMS Externship

DMS 430A - DMS Externship

DMS 430B - DMS Externship

Echocardiography

ECHO 107 - Seminar

ECHO 207 - Seminar

ECHO 227 - Basic ECG Recognition/Testing

ECHO 231 - Echocardiography I

ECHO 232 - Echocardiography II

ECHO 307 - Seminar

ECHO 320 - Cardiographic Methods

ECHO 321 - Stress & Transesophageal Echo

ECHO 325 - Pediatric Echo

ECHO 332 - Invasive Cardiology

ECHO 333 - Echocardiography III

ECHO 334 - Echocardiography IV

ECHO 376 - Survey of Vascular Testing

ECHO 385 - Echo Lab Management

ECHO 388 - Externship Preparation

ECHO 407 - Seminar

ECHO 420 - Echo Externship

ECHO 420A - Echo Externship

ECHO 420B - Echo Externship

Economics

ECO 107 - Seminar

ECO 201 - Principles of Microeconomics

ECO 202 - Principles of Macroeconomics

ECO 207 - Seminar

ECO 307 - Seminar

ECO 407 - Seminar

Electrical Engineering

EE 107 - Seminar

EE 131 - Digital Electronics I

EE 133 - Digital Electronics II

EE 207 - Seminar

EE 221 - Circuits I

EE 223 - Circuits II

EE 225 - Circuits III

EE 307 - Seminar

EE 320 - Adv Circuit Systems Analysis

EE 321 - Electronics I

EE 323 - Electronics II

EE 325 - Electronics III

EE 331 - Digital System Design w/HDL

EE 333 - Intro to Microcontrollers

EE 335 - Advanced Microcontrollers

EE 341 - Electricity/Magnetism w/Transm

EE 343 - Solid State Electronic Devices

EE 401 - Communication Systems

EE 407 - Seminar

EE 419 - Power Electronics

EE 430 - Linear Sys & Digital Signal

EE 432 - Advanced Digital System Design

EE 435 - Embedded Systems I

EE 448 - Geometric Optics

EE 452 - Waveguides and Fiber Optics

EE 461 - Control Engineering I: Classical Methods

EE 485 - Printed Circuit Board Design

EE 501 - Communication Systems

EE 507 - Seminar

EE 519 - Power Electronics

EE 530 - Linear Sys & Digital Sig Prcsg

EE 532 - Advanced Digital System Design

EE 535 - Embedded Systems Hardware

EE 548 - Geometric Optics

EE 561 - Control Engineering I: Classical Methods

EE 585 - Printed Circuit Board Design

EE 597 - Graduate Project

EE 598 - Graduate Thesis

ENGR 267 - Engineering Programming

Emergency Medical Technology-Paramedic

EMS 107 - Seminar

EMS 115 - Introduction to EMS

EMS 150 - Accelerated Emergency Medical Technician (EMT)

EMS 151 - Emerg Med Tech (EMT) I

EMS 152 - Emerg Med Tech (EMT) II

EMS 190 - EMT Externship

EMS 207 - Seminar

EMS 211 - Prehospital Emerg Pharmacology

EMS 218 - Trauma Emergencies

EMS 231 - Medical Emergencies

EMS 232 - Medical Emergencies II

EMS 235 - Basic Electrocardiography

EMS 236 - Advanced Electrocardiography

EMS 237 - Paramedic 12-Leads

EMS 241 - Paramed Crisis Resrce Mgmt I

EMS 242 - Paramed Crisis Resrce Mgmt II

EMS 243 - Paramed Crisis Resrce Mgmt III

EMS 271 - Paramedic Skills Lab I

EMS 272 - Paramedic Skills Lab II

EMS 273 - Paramedic Skills Lab III

EMS 283 - Clinical Practicum I

EMS 284 - Clinical Practicum II

EMS 291 - Paramed Capstone I

EMS 292 - Paramed Capstone II

EMS 331 - Critical Care Transport

EMS 332 - Critical Care Transport II

EMS 382 - Critical Care Clinical Practicum

EMS 444 - EMS Systems, Lead & Mgt

EMS 456 - Research Methods in EMS

EMS 496 - EMS Capstone Project I

EMS 497 - EMS Capstone Project II

Engineering

ENGR 101 - Intro to Engineering I

ENGR 102 - Intro to Engineering II

ENGR 111 - MMET Orientation

ENGR 207 - Seminar

ENGR 211 - Engineering Mechanics: Statics

ENGR 212 - Engineering Mech: Dynamics

ENGR 213 - Engr Mech: Strength of Mat

ENGR 236 - Fund of Elec Circuits

ENGR 266 - Engineering Computation

ENGR 305 - Nanoscience & Nanotech

ENGR 318 - Engineering Mech: Fluids

ENGR 326 - Electric Power Systems

ENGR 355 - Thermodynamics

ENGR 407 - Seminar

ENGR 415 - Occupational Safety

ENGR 445 - Engineering Project Management

ENGR 461 - Modeling and Simulation of Dynamic Systems

ENGR 462 - Control Engineering II: Modern Methods

ENGR 463 - Motion Control in Mechanisms and Robotics

ENGR 464 - Autonomous Systems

ENGR 465 - Capstone Project

ENGR 485 - Fund of Engineering Exam Prep

ENGR 491 - MMET Senior Projects I

ENGR 492 - MMET Senior Projects II

ENGR 493 - MMET Senior Projects III

ENGR 507 - Seminar

ENGR 511 - Res Meth & Innov: Intel Prop

ENGR 512 - Res Meth & Innov: Res Meth

ENGR 513 - Res Meth & Innov: Strat & Inno

ENGR 561 - Modeling and Simulation of Dynamic Systems

ENGR 562 - Control Engineering II: Modern Methods

ENGR 563 - Motion Control in Mechanisms and Robotics

ENGR 596 - Grad Research & Development

ENGR 597 - Graduate Project

ENGR 598 - Graduate Thesis

Environmental Sciences

ENV 107 - Seminar

ENV 108 - Mentorship and Team Building

ENV 111 - Intro to Env Sciences

ENV 207 - Seminar

ENV 214 - Watershed Sci & Tech

ENV 217 - Intro to Natural Resources Management

ENV 224 - Scientific Reason & Method

ENV 226 - Environmental Data Analysis

ENV 265 - Field Methods Environ Science

ENV 307 - Seminar

ENV 314 - Environmental Policy and Management

ENV 321 - Water Resources

ENV 336 - Environmental Hydrology

ENV 355 - Careers/Professionalism in Env Sci

ENV 365 - Adv Field Methods in Env Sci

ENV 375 - Forest Ecology & Management

ENV 407 - Seminar

ENV 420 - Externship in Env Sci

ENV 422 - Green Chemistry

ENV 425 - Fire Ecology

ENV 427 - Greenhouse Gas Accounting/Footprints

ENV 434 - Advanced Data Analysis

ENV 435 - Atmospheric Physics

ENV 460 - Risk Management and Wilderness First Aid

ENV 465 - Ecological Resto. & Monitoring

ENV 466 - Environmental Education

ENV 469 - Treatment Wetlands

ENV 477 - Entomology

ENV 479 - Ichthyology

ENV 484 - Sustainable Human Ecology

ENV 485 - Habitat Management

ENV 489 - Aquatic Inorganic Chemistry

ENV 495 - Research in Env. Sciences

ENV 522 - Green Chemistry

ENV 525 - Fire Ecology

ENV 560 - Risk Management and Wilderness First Aid

ENV 565 - Ecological Resto. & Monitoring

ENV 566 - Environmental Education

ENV 569 - Treatment Wetlands

ENV 577 - Entomology

ENV 579 - Ichthyology

ENV 584 - Sustainable Human Ecology

ENV 589 - Aquatic Inorganic Chemistry

Geography

GEOG 105 - Physical Geography

GEOG 106 - Cultural Geography I

GEOG 107 - Cultural Geography II

GEOG 108 - Cultural Geography III

GEOG 207 - Seminar

GEOG 305 - Geomorphology

GEOG 307 - Seminar

GEOG 315 - Climatology & Atmospheric Sci

GEOG 335 - Soils

GEOG 407 - Seminar

Geology

GEOL 107 - Seminar

GEOL 201 - Physical Geology

GEOL 207 - Seminar

GEOL 307 - Seminar

GEOL 407 - Seminar

Geographic Information Systems

GIS 103 - The Digital Earth

GIS 107 - Seminar

GIS 134 - Geographic Information Systems

GIS 205 - Mobile and Web GIS

GIS 207 - Seminar

GIS 306 - Geospatial Raster Analysis

GIS 307 - Seminar

GIS 316 - Geospatial Vector Analysis

GIS 332 - Python for Geospatial Analysis

GIS 407 - Seminar

GIS 426 - Geospatial Vector Analysis II

GIS 432 - Customizing the GIS Envirn II

GIS 435 - Remote Sensing II

GIS 446 - GIS Database Development

GIS 526 - Geospatial Vector Analysis II

Geomatics

GIS 535 - Remote Sensing II

GME 107 - Seminar

GME 161 - Plane Surveying I

GME 162 - Plane Surveying II

GME 163 - Route Surveying

GME 175 - Computations and Platting

GME 207 - Seminar

GME 241 - Boundary Law I

GME 242 - Land Descrip & Cadastre

GME 264 - Digital Design for Surveying

GME 307 - Seminar

GME 343 - Boundary Surveys

GME 351 - Constr/Engr Surveying

GME 372 - Subdiv'n Planning and Platting

GME 395 - Cooperative Field Experience

GME 396 - Cooperative Field Practice

GME 407 - Seminar

GME 425 - Remote Sensing

GME 444 - Adjustment by Least Squares

GME 451 - Geodesy

GME 452 - Map Projections

GME 454 - GNSS Surveying

GME 455 - GNSS Surveying for GIS

GME 466 - Boundary Law II

GME 468 - Geomatics Practicum

GME 495 - Cooperative Field Experience

GME 496 - Cooperative Field Practice

GME 497 - CFedS

Health Education

HED 107 - Seminar

HED 207 - Seminar

HED 240 - Emergency Care and CPR

HED 260 - Diet/Exer Life Fitness

HED 275 - Intro to Sports Medicine

HED 307 - Seminar

HED 407 - Seminar

History

HIST 107 - Seminar

HIST 201 - US History

HIST 202 - US History

HIST 203 - US History

HIST 207 - Seminar

HIST 255 - History of Science

HIST 275 - Intro to Hist of Medicine

HIST 307 - Seminar

HIST 356 - A History of Energy

HIST 407 - Seminar

HIST 452 - Globalization & Pac NW

Humanities

HUM 105 - EAC: Text, Images, Games

HUM 107 - Seminar

HUM 125 - Intro Tech, Soc, Value

HUM 147 - West Cult in the Classical Age

HUM 148 - West Cult in the Medieval Age

HUM 207 - Seminar

HUM 235 - Introduction to Film

HUM 307 - Seminar

HUM 335 - Video Game Studies

HUM 345 - Digital Culture and Society

HUM 407 - Seminar

Journalism

JOUR 107 - Seminar

JOUR 207 - Seminar

JOUR 211 - Intro to Journalism

JOUR 307 - Seminar

JOUR 407 - Seminar

Literature

LIT 104 - Intro to Literature

LIT 105 - Intro to Literature

LIT 106 - Intro to Literature

LIT 107 - Seminar

LIT 207 - Seminar

LIT 305 - Ecol Issues in Nature Writing

LIT 307 - Seminar

LIT 315 - Science Fiction Lit & Film

LIT 325 - The Metropolis

LIT 345 - Postapocalyptic Lit & Film

LIT 346 - Creative Writing

LIT 407 - Seminar

Mathematics

MATH 70 - Elementary Algebra

MATH 97 - Algebra Review

MATH 100 - Intermediate Algebra

MATH 101 - Accelerated Algebra

MATH 105Z - Math in Society

MATH 107 - Seminar

MATH 111Z - Precalculus I: Functions

MATH 112Z - Precalculus II: Trigonometry

MATH 207 - Seminar

MATH 221 - Intro to Computational Sftware

MATH 251 - Differential Calculus

MATH 252 - Integral Calculus

MATH 253 - Sequences and Series

MATH 254 - Vector Calculus I

MATH 307 - Seminar

MATH 310 - Mathematical Structures

MATH 311 - Introduction to Real Analysis

MATH 321 - Appl Diff Equation I

MATH 322 - Appl Diff Equation II

MATH 327 - Discrete Mathematics

MATH 341 - Linear Algebra I

MATH 342 - Linear Algebra II

MATH 346 - Number Theory

MATH 347 - Fundmtls of Abstract Algebra

MATH 354 - Vector Calculus II

MATH 361 - Statistical Methods I

MATH 362 - Statistical Methods II

MATH 371 - Finite Math/Calc I

MATH 372 - Finite Math/Calc II

MATH 407 - Seminar

MATH 421 - Applied Partial Diff Equations

MATH 422 - Applied Partial Diff Equtns II

MATH 423 - Applied Partial Diff Equ III

MATH 451 - Numerical Methods I

MATH 452 - Numerical Methods II

MATH 453 - Numerical Methods III

MATH 465 - Mathematical Statistics

Mechanical Engineering

MECH 107 - Seminar

MECH 207 - Seminar

MECH 221 - Statics

MECH 222 - Strength of Materials I

MECH 223 - Strength of Materials II

MECH 260 - Engineering Materials I

MECH 307 - Seminar

MECH 313 - Thermodynamics II

MECH 315 - Machine Design I

MECH 316 - Machine Design II

MECH 318 - Fluid Mechanics

MECH 323 - Heat Transfer I

MECH 351 - Finite Element Analysis

MECH 360 - Engineering Materials II

MECH 363 - Engineering Instrumentation

MECH 404 - Co-op Field Practice

MECH 405 - Reading and Conference

MECH 407 - Seminar

MECH 417 - Fluid Mechanics II

MECH 418 - Fluid Mechanics II

MECH 421 - Intro to Wind Tunnels

MECH 426 - Fluid Power Systems

MECH 433 - HVAC

MECH 436 - Classical Control Systems

MECH 437 - Heat Transfer II

MECH 475 - Parametric Modeling

MECH 480 - Mechanical Vibrations

Mechanical Engineering Technology

MET 107 - Seminar

MET 207 - Seminar

MET 241 - CAD for Mechanical Design I

MET 242 - CAD for Mechanical Design II

MET 307 - Seminar

MET 375 - Solid Modeling

MET 407 - Seminar

Manufacturing Engineering Technology

MFG 103 - Intro Welding Proc

MFG 107 - Seminar

MFG 112 - Intro to Mfg Processes

MFG 120 - Intro Machining Proc

MFG 207 - Seminar

MFG 307 - Seminar

MFG 313 - Mfg Analysis & Planning

MFG 314 - Geom Dimension/Tolerance

MFG 331 - Industrial Controls

MFG 333 - Stat Methods Qual/Improv

MFG 341 - Numerical Control Prog

MFG 342 - Computer Aided Machining

MFG 343 - Manufacturing Tool Dsgn

MFG 344 - Dsgn of Mfg Tooling

MFG 407 - Seminar

MFG 447 - Lean Manufacturing

MFG 453 - Automation & Robotics

MFG 454 - Thermal Manufacturing Process

MFG 507 - Seminar

MFG 563 - Inventory/Supply Train Mgt

MFG 595 - Selected Grad Topics in Manf

MFG 596 - Selected Topics/Eng Sci & Design

MFG 597 - Selected Topics/Comp Integrat

MFG 598 - Selected Topics/Mat & Process

MFG 599 - Selected Topics/Finance & Mngt

Marriage and Family Therapy

MFT 502 - Lifespan Development

MFT 510 - Introduction to MFT

MFT 511 - Family Therapy Theory & Practice I

MFT 512 - MFT Theory and Practice II

MFT 513 - Advanced Family Therapy

MFT 520 - Counseling: Theory & Skills

MFT 521 - Child & Adolescent Therapy

MFT 522 - Couples Therapy

MFT 523 - Group Therapy

MFT 525 - Trauma and Recovery

MFT 530 - Adult Psychopathology & Diagnosis

MFT 531 - Child & Adolescent Psychopathology & Diagnosis

MFT 540 - Research Methods

MFT 550 - Professional Studies: Ethics

MFT 560 - Dev. Cultural Competencies

MFT 561 - Sexuality and Therapy

MFT 562 - Rural Considerations in MH and SUD Treatment and Prevention

MFT 564 - Substance Use & Co-Occuring Disorders

MFT 566 - MedFT: Illness, Families, and Professionals

MFT 567 - Introduction to SUDs and Addiction

MFT 568 - MedFT in Action: Community-based Integration & Collaboration

MFT 569 - Families, Substance Use and Addiction

MFT 581 - Pharmacology of Substance Use Disorders

MFT 582 - Contemporary Issues in MFT and Addiction

MFT 592 - Self of the Therapist

MFT 593 - Theories of Change in MFT

MFT 594 - Capstone

MFT 599 - Supervised Clinical Practicum in MFT

Management

BUS 256 - Graphic Design for Business

MGT 107 - Seminar

MGT 207 - Seminar

MGT 307 - Seminar

MGT 321 - Operations Management

MGT 322 - Supply Chain Management

MGT 323 - Logistics Management

MGT 335 - Project Management

MGT 345 - Engineering Economy

MGT 407 - Seminar

MGT 421 - Quality Management

MGT 422 - Materials Management

MGT 423 - Enterprise Resource Planning

MGT 461 - Lean/Six Sigma Management I

MGT 462 - Lean/Six Sigma Management II

MGT 463 - Lean/Six Sigma Management III

Management Information Systems

MIS 102 - Spreadsheet Software Lab

MIS 107 - Seminar

MIS 113 - Intro to Database Systems

MIS 118 - Intro to Programming in C#

MIS 145 - Intro to PC Hardware/Software

MIS 206 - Intro to Mgmt Info Sys

MIS 207 - Seminar

MIS 218 - Intermediate Programming in C#

MIS 225 - Business on the Internet

MIS 240 - Intro to Linux OS

MIS 251 - Networking I

MIS 255 - Health Informatics Cpts & Prct

MIS 273 - Systems Administration I

MIS 275 - Intro to Relational Databases

MIS 285 - Python Programming

MIS 307 - Seminar

MIS 311 - Intro to Systems Analysis

MIS 312 - Systems Analysis I

MIS 322 - Systems Analysis II

MIS 334 - Business Analytics

MIS 341 - Relational Database Design I

MIS 344 - Business Intelligence

MIS 345 - Health Care Info Systms Mgment

MIS 351 - Enterprise Networking

MIS 357 - Info & Comm Systs in Hlth Care

MIS 365 - Cloud Computing

MIS 375 - Decision Support Systems

MIS 390 - Co-op Field Experience

MIS 407 - Seminar

MIS 441 - Big Data

MIS 442 - Adv Database App Programming

MIS 446 - Data Mining

MIS 480 - Capstone Experience

MIS 490 - Co-op Field Experience

MIS 495 - Senior Project Selection

MIS 496 - Senior Project Management

MIS 497 - Senior Project II

MIS 498 - Senior Project III

Medical Imaging Technology

MIT 103 - Intro to Med Imaging

MIT 107 - Seminar

MIT 207 - Seminar

MIT 209 - PACS I: Intro to PACS

MIT 219 - PACS II: Comm and Admin

MIT 225 - Patient Care in Sonography

MIT 229 - PACS III: Tech Req & Imag Qual

MIT 231 - Sonographic Princ & Instru I

MIT 232 - Sonographic Princ & Instru II

MIT 239 - PACS IV: Implem & Sys Mgmt

MIT 249 - PACS V: DICOM

MIT 259 - PACS VI: PACS Security

MIT 305 - Medical Imaging Tech Practicum

MIT 307 - Seminar

MIT 310 - Cadaver Imaging Problems

MIT 341 - Magnetic Resonance Imaging

MIT 342 - Mag. Resonance Imaging II

MIT 356 - Computed Tomography II

MIT 365 - Mag. Resonance Imaging Review

MIT 405 - Medical Imaging Tech Practicum

MIT 407 - Seminar

MIT 411 - Magnetic Resonance Externship

Medical Laboratory Science

MLS 100 - Introduction to MLS

MLS 107 - Seminar

MLS 207 - Seminar

MLS 307 - Seminar

MLS 407 - Seminar

MLS 415 - Clinical Chemistry I

MLS 416 - Clinical Chemistry II

MLS 417 - Clinical Chemistry III

MLS 420 - Clinic Immun & Infect Serology

MLS 422 - Molecular Diagnostics

MLS 424 - Hemostasis

MLS 432 - Foundations of MLS I

MLS 442 - Hematology I

MLS 443 - Immunohematology I

MLS 444 - Microbiology I

MLS 445 - Microbiology II

MLS 449 - Principles of Urinalysis

MLS 452 - Hematology II

MLS 453 - Immunohematology II

MLS 462 - Foundations of MLS II

MLS 463 - Foundations of MLS III

MLS 464 - Medical Mycology and Parasitology

MLS 470 - Chemistry & Immunology Extern

MLS 471 - Hematology Externship

MLS 472 - Microbiology Externship

MLS 473 - Immunohematology Extern

MLS 475 - MLS Capstone

Nuclear Medicine Technology

NMT 107 - Seminar

NMT 205 - Nuclear Med Admin

NMT 207 - Seminar

NMT 212 - Nuc Med Phy/Radiation Biophy

NMT 215 - Radiochem/Radiopharmacy

NMT 217 - Patient Care

NMT 225 - Nuclear Phy/Instrumtn

NMT 256 - Cardiovascular Imaging

NMT 307 - Seminar

NMT 311 - Imaging Procedures I

NMT 312 - Imaging Procedures II

NMT 313 - Therapeutic Procedures

NMT 315 - Breast Imaging

NMT 325 - SPECT Imaging/Comp Appl

NMT 355 - Computed Tomography

NMT 367 - PET Imaging

NMT 388 - Externship Preparation

NMT 407 - Seminar

NMT 410 - Nuclear Med Tech Extern

Physical Education

PHED 107 - Seminar

PHED 111 - Core Strength and Balance

PHED 113 - Super Circuit/Cardio Training

PHED 121 - Total Fitness Conditioning I

PHED 122 - Total Fitness Conditioning II

PHED 145 - Relaxation and Flexibility

PHED 146 - Yoga

PHED 151 - Karate

PHED 163 - Wilderness Navigation

PHED 174 - Recreational Basketball

PHED 175 - Rugby

PHED 180 - Varsity Cross Country

PHED 181 - Varsity Soccer

PHED 182 - Varsity Track/Field

PHED 183 - Varsity Men's Baseball

PHED 184 - Varsity Men's Basketball

PHED 185 - Varsity Women's Basketball

PHED 186 - Varsity Women's Softball

PHED 187 - Varsity Women's Volleyball

PHED 189 - Varsity Golf

PHED 207 - Major Sports Seminar

PHED 255 - Intro to Coaching Theory

PHED 307 - Seminar

PHED 355 - Coaching in Application

PHED 407 - Seminar

PHED 455 - Coaching Practicum

Physical Therapy

PT 600 - Introduction to the Physical Therapy Profession

PT 605 - Clinical Human Anatomy

PT 610 - Nutrition and Wellness

PT 615 - Foundations of Physical Therapy Practice

PT 620 - Physical Therapy Examination Skills

PT 625 - Assistive Device Training

PT 630 - Social Determinants of Health

PT 631 - Therapeutic Exercise I

PT 632 - Therapeutic Exercise II

PT 635 - Human Physiology

PT 640 - Biomechanics and Kinematics of Human Motion

PT 641 - Management of Musculoskeletal Dysfunction I

PT 645 - Principles of Evidence-Based Practice

PT 650 - Therapeutic Modalities

PT 655 - Pathophysiology

PT 660 - Motor Development and Control Across the Lifespan

PT 665 - Clinical Neuroscience

PT 670 - Exercise Physiology

PT 675 - Clinical Reasoning and Decision Making

PT 680 - Ethics in the Health Professions

PT 700 - Management of Cardiovascular and Pulmonary Dysfunction

PT 705 - Management of Integumentary Dysfunction

PT 710 - Medical Imaging for Physical Therapists

PT 715 - Teaching and Learning

PT 720 - Clinical Research Methods and Biostatistics

PT 721 - Clinical Experience I

PT 722 - Clinical Experience II

PT 723 - Clinical Experience III

PT 724 - Clinical Experience IV

PT 725 - Physical Therapy Pharmacology

PT 730 - Integrated Clinical Experience

PT 731 - Management of Neurological Dysfunction I

PT 732 - Management of Neurological Dysfunction II

PT 735 - Business, Legal, and Regulatory Issues

PT 740 - Acute Care in Physical Therapy

PT 741 - Management of Musculoskeletal Dysfunction II

PT 745 - Differential Diagnosis

PT 750 - Pediatric Physical Therapy

PT 751 - Capstone Project I

PT 752 - Capstone Project II

PT 753 - Capstone Project III

PT 755 - Geriatric Physical Therapy

PT 760 - Orthotics and Prosthetics

PT 765 - Clinical Administration and Marketing

PT 770 - Leadership and Professional Development

PT 775 - Physical Therapy in Rural Communities

PT 779 - Special Topics

PT 780 - Management of Complex Patients

Philosophy

PHIL 107 - Seminar

PHIL 205 - Introduction to Logic

PHIL 207 - Seminar

PHIL 215 - Ethical Theory

PHIL 225 - Bioethics

PHIL 255 - Ethics and Philosophy of Artificial Intelligence

PHIL 305 - Medical Ethics

PHIL 307 - Seminar

PHIL 331 - Ethics in the Professions

PHIL 336 - Moral Standing and Moral Beings

PHIL 342 - Business Ethics

PHIL 407 - Seminar

Physics

PHY 107 - Seminar

PHY 201 - General Physics

PHY 202 - General Physics

PHY 203 - General Physics

PHY 207 - Seminar

PHY 215 - Topics in Astronomy

PHY 217 - Physics of Med Imaging

PHY 221 - General Physics w/Calculus

PHY 222 - General Physics w/Calculus

PHY 223 - General Physics w/Calculus

PHY 305 - Nanoscience & Nanotech

PHY 307 - Seminar

PHY 311 - Intro to Modern Physics

PHY 312 - Intro to Modern Physics

PHY 313 - Intro to Modern Physics

PHY 330 - Electricity & Magnetism

PHY 407 - Seminar

PHY 410 - Math Meth: Fourier Optics

PHY 448 - Geometric Optics

PHY 449 - Radiometry & Optical Detect

PHY 450 - Physical Optics

PHY 451 - Lasers

PHY 452 - Waveguides and Fiber Optics

PHY 453 - Optical Metrology

PHY 548 - Geometric Optics

PHY 549 - Radiometry & Optical Detection

PHY 550 - Physical Optics

PHY 551 - Lasers

PHY 552 - Waveguides & Fiber Optics

PHY 553 - Optical Metrology

Polysomnographic Technology

PSG 107 - Seminar

PSG 207 - Seminar

PSG 211 - Fund of PSG & Patient Care

PSG 221 - Physiology of Sleep

PSG 231 - Sleep Disorders Pathology

PSG 246 - Sleep Disorders in Women

PSG 264 - Pediatric/Neonatal Psg

PSG 271A - Clinical Polysom Tech A

PSG 271B - Clinical Polysom Tech B

PSG 271C - Clinical Polysom Tech C

PSG 291 - Clinical Sleep Educator

Population Health Management

PHM 105 - Intro to Population Health Management

PHM 321 - Community Program Planning

PHM 420 - Population Health Management Externship

PHM 435 - Research Center

Professional Writing

PWR 101 - Introduction to Professional Writing

PWR 102 - Introduction to Web Authoring

PWR 206 - Social Media

PWR 215 - Writing in the Public Interest

PWR 220 - Writing for Interactive Media

PWR 306 - Writing for the Health Professions

PWR 320 - Structured Authoring

PWR 330 - User Research

PWR 355 - Project Management for Writers

PWR 490 - Portfolio Development

PWR 499 - Internship in Professional Writing

Psychology

PSY 107 - Seminar

PSY 201Z - Introduction to Psychology I

PSY 202Z - Introduction to Psychology II

PSY 203 - Psychology

PSY 207 - Seminar

PSY 215 - Abnormal Psychology I

PSY 216 - Abnormal Psychology II

PSY 225 - Applied Stats for Social Sci

PSY 301 - Basic Counseling Techniques

PSY 307 - Seminar

PSY 308 - Psychology of Eating

PSY 311 - Human Growth & Dev I

PSY 312 - Human Growth & Dev II

PSY 313 - Psych Research Methods I

PSY 314 - Psych Research Methods II

PSY 317 - Field & Career Preparation

PSY 330 - Social Psychology I

PSY 331 - Social Psychology II

PSY 334 - Behavior Modification I

PSY 335 - Behavior Modification II

PSY 339 - Biopsychology

PSY 347 - Organizational Behavior

PSY 355 - Evolutionary Psychology

PSY 358 - Psychology of Gender

PSY 360 - Organizational Psych

PSY 361 - Industrial Psychology

PSY 371 - Human Sexuality I

PSY 372 - Human Sexuality II

PSY 375 - Organizational Behavior Mgmt

PSY 376 - Foundations of Sports Psych

PSY 385 - Peer Mentorship

PSY 401 - Adv Counseling Techniques

PSY 407 - Seminar

PSY 410 - Organiz Change/Develop

PSY 416 - Abnorm Behav Children & Adol

PSY 420 - Applied Psych Extern

PSY 421 - Senior Project I

PSY 422 - Sr Project II

PSY 423 - Sr Project III

PSY 425 - Motivational Interviewing

PSY 428 - Animal Behavior

PSY 431 - Family Therapy

PSY 432 - Group Therapy

PSY 434 - Adv Behavior Modification I

PSY 435 - Adv Behavior Modification II

PSY 436 - Ethics for Applied Behavior Analysis

PSY 445 - OR Tech Relationship Bldg Prog

PSY 446 - Psychological Trauma

PSY 447 - Well-Being Program

PSY 455 - Cognitive Psychology

PSY 456 - Performance Management

PSY 465 - Ecuador Study Abroad

PSY 475 - Capstone in Applied Psychology

PSY 480 - Theories of Learning

PSY 485 - Education Assistantship

PSY 497 - Special Projects/Training

PSY 499 - Independent Study

Respiratory Care Program

RCP 100 - Matriculation

RCP 107 - Seminar

RCP 120 - Interventions in Gas Exchange

RCP 207 - Seminar

RCP 231 - Pulmonary Physiology

RCP 235 - Arterial Blood Gases

RCP 236 - Cardiopulmonary Dynamics

RCP 241 - Respiratory Gas Therapeutics

RCP 252 - Cardiopulmonary Pharmacology

RCP 307 - Seminar

RCP 326 - Preparedness, Ethics, and Leadership

RCP 335 - Exercise Physiol and Education

RCP 336 - Hyperinflation Therapies

RCP 337 - Pulmonary Pathology

RCP 345 - Cardiopulmonary Diag & Monitor

RCP 350 - Introduction to Clinical

RCP 351 - Mechanical Ventilation I

RCP 352 - Mechanical Ventilation II

RCP 353 - Mechanical Ventilation III

RCP 366 - Clinical Simulation

RCP 375 - Pediatric Care

RCP 386 - Critical Care I

RCP 387 - Critical Care II

RCP 388 - Adv Neonatal Respiratory Care

RCP 407 - Seminar

RCP 440 - Case Management I

RCP 441 - Case Management II

RCP 442 - Case Management III

RCP 450 - Clinical Care I

RCP 451 - Clinical Care II

RCP 452 - Clinical Care III

RCP 460 - Advanced Life Support

RCP 561 - Individual Development Plan

RCP 565 - Clinical Preceptorship

RCP 575 - Accreditation Practicum

Radiologic Science

RDSC 107 - Seminar

RDSC 201 - Imaging Techniques I

RDSC 202 - Imaging Techniques II

RDSC 205 - Patient Care

RDSC 207 - Seminar

RDSC 210 - Radiograph Position I

RDSC 211 - Radiograph Position II

RDSC 233 - Contrast Media Proc

RDSC 235 - Equipment Operation & Maint

RDSC 272 - Radiation Protection

RDSC 301 - Radiograph Position III

RDSC 307 - Seminar

RDSC 320 - Surg/Trauma/Mobl Rdgrph

RDSC 326 - Crdvsclr/Interv Tech

RDSC 354 - Mammography

RDSC 355 - Computed Tomography

RDSC 366 - Radiographic Pathology

RDSC 388 - Externship Preparation

RDSC 407 - Seminar

RDSC 410 - Rad Science Externship

RDSC 411 - Special Rad Sci Extern

RDSC 411A - Special Rad Sci Extern

RDSC 411B - Special Rad Sci Extern

Renewable Energy Engineering

REE 107 - Seminar

REE 201 - Intro to Renewable Energy

REE 207 - Seminar

REE 243 - Electrical Power

REE 253 - Electromech Energy Conversion

REE 307 - Seminar

REE 331 - Fuel Cells

REE 333 - Batteries

REE 335 - Hydrogen

REE 337 - Materials for RE Applications

REE 344 - Nuclear Energy

REE 345 - Wind Power

REE 348 - Solar Thermal Energy Systems

REE 407 - Seminar

REE 412 - Photovoltaic Systems

REE 413 - Electric Power Conv Systems

REE 439 - Energy Systems Auditing and Management

REE 453 - Power System Analysis

REE 454 - Power Syst Protection & Ctnrl

REE 455 - Energy Efficient Building Dsgn

REE 463 - Energy Systems Instrumentation

REE 469 - Grid Integration of Renewables

REE 487 - Electric Vehicles I

REE 488 - Electric Vehicles II

REE 489 - Electric Vehicles III

REE 511 - Research Methods/Innovation I

REE 512 - Research Methods/Innov II

REE 513 - Research Methods/Innov III

REE 515 - Energy Engineering I

REE 516 - Energy Engineering II

REE 517 - Energy Engineering III

REE 525 - Solid-State Physics/Photov Mat

REE 529 - Power System Analysis

REE 533 - Heating, Ventilation/Air Condi

REE 545 - Applied Photovoltaics

REE 549 - Power System Protection/Contrl

REE 553 - Energy Systems Mgmt/Auditing

REE 565 - Semiconductor Process Enginrng

REE 569 - Grid Integration of Renewables

REE 573 - Energy-Efficient Bldg Design

REE 581 - Energy Storage Fundamentals

REE 582 - Introduction to Batteries

REE 583 - Intro to Fuel Cells

REE 587 - Advanced Electric Vehicle I

REE 588 - Advanced Electric Vehicle II

REE 589 - Advanced Electric Vehicle III

REE 591 - Hydrogen Prod & Storage

REE 592 - Advanced Batteries

REE 593 - Advanced Fuel Cells

REE 599 - Graduate Research or Project

System Engineering and Technology Management

SEM 421 - Systems Engineering

SEM 422 - Advanced Systems Engineering

SEM 425 - Advanced Engineering Mgmt

SEM 521 - Systems Engineering

SEM 522 - Advanced Systems Engineering

SEM 525 - Advanced Engineering Mgmt

Sociology

SOC 107 - Seminar

SOC 201 - Classical Sociol Theory

SOC 202 - Contemporary Soc Theory

SOC 204 - Intro to Sociology

SOC 205 - Current Health Issues

SOC 206 - Social Problems

SOC 207 - Seminar

SOC 225 - Medical Sociology

SOC 301 - Soc Science Research Methods

SOC 302 - Soc Science Resrch Methods II

SOC 305 - Rural Health

SOC 307 - Seminar

SOC 325 - Global Population Health

SOC 335 - Hlth Inequal & Cult Competency

SOC 345 - Aging and Society

SOC 407 - Seminar

Speech

SPE 107 - Seminar

SPE 207 - Seminar

SPE 307 - Seminar

SPE 314 - Argumentation

SPE 321 - Small Group/Team Comm

SPE 407 - Seminar

Statistics

STAT 201 - Intro to Data Science

STAT 211 - Data Science Methods

STAT 243Z - Elementary Statistics I

STAT 395 - Junior Project I

STAT 396 - Junior Project II

STAT 397 - Junior Project III

STAT 405 - Advanced Methods in Data Science

STAT 412 - Regression & Times Series

STAT 414 - Stat Methods in Epidemiology

STAT 441 - Statistical Machine Learning I

STAT 442 - Statistical Machine Learning II

STAT 467 - Spatial Statistics

STAT 495 - Senior Project I

STAT 496 - Senior Project II

STAT 497 - Senior Project III

STAT 505 - Biostatistics I

STAT 515 - Epidemiology I

Vascular Technology

VAS 107 - Seminar

VAS 207 - Seminar

VAS 214 - Vascular Anatomy

VAS 245 - Periphrl Venous Disease

VAS 246 - Perphrl Arterial Disease

VAS 307 - Seminar

VAS 335 - Radiogrphc Vasclr Anat

VAS 337 - Survey of Echocardiography

VAS 365 - Abdominal Vasc Disease

VAS 366 - Spec Circulatory Problms

VAS 367 - Cerebrovascular Disease

VAS 375 - Survey Abdom Sonography

VAS 385 - Vascular Lab Mgmt

VAS 388 - Externship Preparation

VAS 407 - Seminar

VAS 420 - Vascular Tech Extern

VAS 420A - Special Vas Tech Extern

VAS 420B - Special Vas Tech Extern

Writing

WRI 107 - Seminar

WRI 121Z - Composition I

WRI 122Z - Composition II

WRI 207 - Seminar

WRI 214 - Business Correspondence

WRI 225 - Writing Nonfiction

WRI 227Z - Technical Writing

WRI 305 - Writ for the Marketplace

WRI 307 - Seminar

WRI 325 - Advanced Composition

WRI 327 - Advanced Tech Writing

WRI 328 - Style

WRI 345 - Science Writing

WRI 350 - Documentation Develop

WRI 407 - Seminar

WRI 410 - Proposal & Grant Writing

WRI 415 - Technical Editing

WRI 420 - Document Design

WRI 507 - Seminar

WRI 510 - Grant Proposal Writing

WRI 521 - Writing at the Grad Level

Other Courses

-

-

-

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Offices and Services

Administrative Offices (services may vary by campus location)

Office of Advising and Retention

Boivin Hall
(541) 851-5266
www.oit.edu/students/advising

The Office of Advising & Retention serves a dual purpose: to provide high-quality academic advising that ensures students have the skills and information to make knowledgeable decisions about both their educational and personal goals, as well as to identify and improve systemic issues that hinder student persistence.

The advising structure is purposeful in design and inclusive of all students. This directed approach promotes student success and retention by effectively advising students and connecting them to resources and tools that support their academic goals. Our efforts address knowledge of academic standards and processes including student responsibilities and acclimating to university life.

· Offer one-on-one appointments with student to address issues and transition to university life

· Develop academic plans and assistance registering for classes each term

· Guide students in exploring academic and career options

· Referral to services and resources available to them and facilitate connections with these resources

· Engage in critical points of engagement throughout academic career

In addition to academic advisors, students are also assigned a faculty advisor to support them in the field of study, course content, give final approval on courses taken each term, as well as career counseling and internships.

Using data driven retention and advising strategies to focus on the big picture, advising and retention was intentionally combined under one office due to the interconnectivity of these efforts. The ability to analyze student retention data and use the findings to identify actionable steps for Oregon Tech to improve overall student outcomes is of critical importance.

The advising office is located on the 1st floor of the Learning Resource Center (LRC). Please visit https://www.oit.edu/students/advising for more information or email advising@oit.edu.

Educational Partnerships and Outreach

DOW E202 - Klamath Falls
(541) 885-1844

Room 212 - Portland-Metro
outreach@oit.edu
www.oit.edu/academics/educational-partnerships

Oregon Tech's Office of Educational Partnerships and Outreach cultivates and maintains partnerships with area high schools, community colleges, and universities that result in increased access and smooth transitions for students. The office forges meaningful relationships with educational partners by connecting faculties, coordinating partnerships, participating in pathways and other local and statewide advisory boards and providing internal and external communication and promotion of partnerships. The office develops dual enrollment agreements with college and university partners, coordinates dual credit and other programs with high schools locally and statewide, manages and coordinates articulation agreements, and develops and manages other academic agreements. EPO is committed to promoting access and equity of higher education to students throughout the state via their dual credit programming and post-secondary pathway work.

Information about the work of Educational Partnerships and Outreach, dual enrollment with colleges and universities, dual credit with high schools and specific articulation agreements are available on the web page or by contacting the office.

High School Programs for College Credit

(541) 885-1844 Klamath Falls
(503) 821-1297 Portland-Metro
www.oit.edu/dual-credit

www.oit.edu/hst

Dual Credit Program

The Dual Credit Program is a partnership between Oregon Institute of Technology and the participating high school to offer qualified high school students the opportunity to receive college credit from Oregon Tech. Oregon Tech is partnered with more than 150 high schools and offers more than 25 introductory college courses. The Dual Credit Program consists of college courses taught in the high schools by college level qualified high school instructors. These courses are offered as part of the regular high school curriculum with the option of registering for college credit from Oregon Tech. Dual Credit provides students with the opportunity to take college level courses, gain valuable skills, and develop study habits for college. Oregon Tech's dual credit programming adheres to the Oregon Standards for Dual Credit and Sponsored Dual Credit.

Early OWLS Program

The Early OWLS Program (EPO) at Oregon Institute of Technology gives qualified high school students the opportunity to come to the Klamath Falls or Portland-Metro campus and take a college course for Oregon Tech credit. Students must be 14 years or older and are typically eligible to take 100- and 200-level courses. High school students must register through the Office of Educational Partnerships and Outreach.

The Dual Credit and HST Programs allow Oregon Tech to reduce the normal tuition fee by a considerable amount. Cost to the participating high school student is $100 per class for Dual Credit, and $25 per credit for EPO.

Affirmative Action, Non-Discrimination and Equal Opportunity

Office of Human Resources, Snell 108
(541) 885-1108

The Civil Rights Officer is charged with oversight and enforcement of Oregon Tech's compliance with relevant federal, state and university civil rights statutes, regulations and policies. Complaints and grievances related to unlawful

discrimination and harassment under federal and state Civil Rights Acts, the Rehabilitation Act, the Americans with Disabilities Act, and other federal or state anti-discrimination and employment laws are to be directed to the Officer for resolution. The Officer also coordinates Oregon Tech's Equal Opportunity programs and activities which seek to maintain a learning and working environment that fosters diversity, inclusion and personal success. Inquiries, requests for assistance, or grievances pertaining to Oregon Tech policies on discrimination, harassment, equal opportunity or access to programs and services should be directed to this office.

Assessment

(541) 885-1990
www.oit.edu/faculty-staff/provost/academic-excellence/GEAC/essential-studies/eslo

Oregon Tech actively engages in assessment of both degree programs and broad institutional essential student learning outcomes (ESLOs). The Director of Academic Excellence and Executive Assistant, in conjunction with the Executive Committee of the Assessment Commission, leads the campus in these efforts. Assessment plans are developed for each undergraduate and graduate degree program focusing on program learning outcomes created by each academic department. The faculty for the program identify strengths and weaknesses in student learning and recommend plans for improvement through a continuous program improvement process. Information on assessment of student learning outcomes is posted on the Oregon Tech website. Oregon Tech faculty members also assess the ESLOs, which are intended to reflect common themes from departmental and program learning outcome statements. Information on assessment of ESLOS is posted on the Oregon Tech website at www.oit.edu/faculty-staff/provost/academic-excellence/GEAC/essential-studies/eslo .

Campus Safety

Cornett 231
(541) 885-1111
www.oit.edu/safety

Campus Safety, Cornett 231
(541) 885-1111
www.oit.edu/safety

Parking Services, Cornett 131
(541) 885-1551
www.oit.edu/campus-safety/parking-services

The Campus Safety department administers the university's security and parking programs. The department promotes security on the Oregon Tech Klamath Falls campus through emergency and non-emergency response services, problem solving, and enforcement of appropriate laws, rules and regulations. The Campus Safety department also provides service functions such as crime prevention and crime reporting programs. Campus Safety patrol officers are available 24/7 for any concern, including disability issues that need immediate resolution or assistance. Our "Night Ride" assistance program is also available for any person that needs an escort from one area to another on campus 24/7. University parking information and appropriate temporary parking permits are available by contacting Parking Services at (541) 885-1551.

Geo-Heat Center

Boivin Hall, 102
(541) 885-1750
geoheat@oit.edu
www.oit.edu/orec/geo-heat-center

The Oregon Renewable Energy Center encompasses Oregon Tech's Geo-Heat Center. Established in 1975, Geo-Heat is active in research, technical assistance and information services in geothermal direct-use, small-scale power generation and ground-source heat pumps. Research activities have included hydrology and geochemistry studies, district heating, down hole heat exchangers, heat pumps, agri-business applications, low temperature Rankine cycle power generators and resource assessment.

As funding allows, the Center provides technical assistance for geothermal projects in the area of equipment and materials selection, feasibility studies, design, troubleshooting and economic evaluations. The Center also provides training sessions and information dissemination regarding the direct applications of geothermal energy, small-scale power generation and ground-source heat pumps.

The Center also publishes technical papers, software and monographs on geothermal energy. Most publications are available on the Center's website, and also through the National Geothermal Data System (NGDS). Archival publications are available through Oregon Tech's library system. The staff has made presentations worldwide and gives tours of local geothermal installations. They are active in professional organizations such as the Geothermal Resources Council, the International Geothermal Association, International Ground-Source Heat Pump Association, and ASHRAE. An extensive Web site on geothermal energy is available at: www.oit.edu/orec/geo-heat-center .

Information Technology Services

(541) 885-1720
(541) 885-1470 Helpdesk/Service

Information Technology Services provides computing and telecommunications resources for the Oregon Tech campuses. Primary service and support areas include e-mail/network access, and communication/collaboration tools for all students, faculty and staff; wireless network and internet access in all Oregon Tech buildings; and advanced technology services virtual desktops for application access and video conferencing.In conjunction with Oregon Tech faculty, staff and students, ITS strives to offer the comprehensive and advanced technologies necessary to meet educational needs and to help facilitate instruction and research on the Oregon Tech campus.

Oregon Tech Klamath Falls and Portland-Metro Campuses are Bring Your Own Device campuses with student access to the internet, Microsoft Office365, video conferencing, virtual desktops, and virtual applications. For assistance with laptop specifications, students can visit www.oit.edu/portland-metro/college-costs/bring-your-own-device. The Klamath Falls campus also offers over 200 laboratory computers in laboratory classrooms for specific hardware or software needs, along with a few computers for general student use. The Portland/Metro campus also offers a few computers for general student use. ITS supports the classroom technology in campus laboratories and classrooms to insure proper function and availability for faculty and students.

Library Services

(541) 885-1772
www.oit.edu/libraries

The University Libraries consist of the main Oregon Tech library and the Shaw Historical library located in the Learning Resources Center (LRC) on the Klamath Falls campus, and the Portland-Metro campus library located in the Portland-Metro campus building in Wilsonville. The library catalog can be accessed from the search bar at oit.edu/library. Phsyical materials not available in our collection can be requested via interlibrary loan; items from over 30 of our Summit partner libraries across the Pacific Northwest can be found and requested using our online catalog, or users can request additional materials using the Interlibrary Loan request form on our website.

In addition to the physical collection, the library provides access to extensive online information sources. Electronic resources such as databases, eBooks, and digital collections are available online to faciilitate student learning regardless of location; OIT users can access electronic resources remotely by logging in with their OIT username and password when prompted.

Research services include print course reserves, inter-library loans, individual research assistance, and chat reference. Campus librarians offer instruction in the use of the library and information resources, workshops on various topics, and classes in research methods.

Klamath Falls Library

The Klamath Falls library, located on the first and second floors of the Learning Resources Center (LRC), contains print and electronic research materials, access to thousands print and electronic journals; and unique digital and special collections such as University Archives. The library also offers group and individual study rooms, printing services, and technology loans such as laptops and webcams. For librarian assistance, call (541) 885-1772 or email libtech@oit.edu.

Portland-Metro Library

The Portland-Metro library, located on the fourth floor of the Portland-Metro campus building, houses a print collection on-site focusing on local programs. Portland-Metro students can request materials from over 30 partner libraries in the Pacific Northwest to be delivered to the PM campus free of charge via the library's interlibrary loan (ILL) service. Portland Metro students can access all electronic library resources, such as online databases and ebooks, by starting from the library homepage at oit.edu/library and entering their Oregon Tech login information when prompted. Students can also check out lab equipment such as function generators or oscilloscopes, as well as laptops; a full list of equipment available for checkout is available via the library website. There are four study rooms in the library, and several additional study rooms located on the second and fourth floors of the campus building. For assistance call (503) 821-1260 or email PMLibrary@oit.edu.

Shaw Historical Library

The Shaw Historical Library, located on the second floor of the LRC, established in 1983 by Laurence and Dorothy Shaw, houses books, art, maps, manuscripts, photographs, and other materials on the history, culture, and natural history of the Land of Lakes—South Central Oregon, Northern California, and Northwestern Nevada. The Journal of the Shaw Historical Library is published annually and is available for purchase at the Oregon Tech bookstore. For more information call (541) 885-1686 or email Shawlib@oit.edu.

Marketing, Communications, and Public Affairs

(541) 885-0192
marketing@oit.edu

The Marketing, Communications and Public Affairs department (MarCoPa) at Oregon Tech is responsible for developing and implementing integrated outreach strategies designed to advance the university's reputational capital and standing among a variety of constituents and audiences. This includes providing services to all segments of the university, from supporting academic departments in promoting their programs, to developing ad campaigns for student recruitment, to creating communications strategies that undergird the university's mission.

MarCoPa is responsible for the university's brand position and identity. It works with academic programs and administrative departments throughout the university in marketing and advertising efforts, and manages university-wide publications, video production, the Oregon Tech website, and social media. The department also serves as the public affairs office for the university, managing media relations, supporting legislative affairs, and providing executive communications and editorial support.

Oregon Renewable Energy Center

The Oregon Renewable Energy Center (OREC) was established by the Oregon State Legislature in 2001 to promote energy conservation and renewable energy use in Oregon and throughout the Northwest. This is accomplished through applied research, educational programs and workforce development, and technical assistance and information dissemination. The Center also encompasses Oregon Tech's Geo-Heat Center. OREC draws its strong technical expertise from the Oregon Tech faculty, whose engineers and computer scientists have been involved in applied research in renewable energy for decades.

OREC:

- investigates renewable energy technologies and opportunities for using them
- assesses which technologies are appropriate for particular circumstances
- applies promising technologies with effective instrumentation and controls
- evaluates technologies using testing and economic analysis
- supports Curriculum Development and student learning experiences
- informs the public through classes, educational materials, and technical data

Current OREC applied research and applications engineering projects focus on:

- power conversion and storage – Testing renewable technologies such as solar, fuel cells, and geothermal heat pumps and developing control systems to smoothly integrate renewable technologies into existing facilities and electrical distribution networks
- alternative fuel sources – Investigating electric and biodiesel power options for cars and trucks
- green building technologies – Utilizing green building materials and techniques, and instrumentation, control and testing of buildings that use renewable energy instead of conventional power
- grid integration of renewable energy sources (smart grid with smart buildings)

Peer Tutoring & Supplemental Instruction

Klamath Falls:

LRC Lower Mezzanine

https://www.oit.edu/academics/cares/peer-consulting-services

Portland-Metro:

Room 429

(503) 821-1263

https://www.oit.edu/portland-metro/student-services/peer-consulting

The Peer Tutoring Center offers FREE subject specific tutoring for all Oregon Tech students with their coursework to enhance their academic growth.

Peer Tutors are undergraduate students who have mastered the course they tutor and are required to be recommended by faculty. Available for drop-in or appointment based sessions; including one-on-one or with study groups (by request.) Virtual appointments are also available.

TutorMe is a supplemental tutoring option for students who need help during 'off' hours. Students are able to access an online tutor 24/7 in a subject area.

For more details or to schedule an appointment, please visit the website.

Supplemental Instruction complements tutoring services and is offered in two ways:

- Course specific: Available upon faculty request. Supplemental instructors are assigned to a specific course and offer study sessions/academic support for students outside the classroom.

- Lab/Study sessions: Group sessions are led by supplemental instructors within the academic department. They include a variety of challenging courses and meet times throughout the week, typically daily.

Pre-College Programs

www.oit.edu/academics/pre-college-programs?ad=youthprograms

Oregon Tech's Youth Programs offers innovative and energizing pre-college educational outreach programs designed to encourage K-12 students to pursue educational and career goals in science, technology, engineering and mathematics (STEM). The goals of our programs are to:

1. increase understanding and interest in STEM careers among participants
2. build confidence in their technical abilities
3. introduce them to role models and mentors

Pre-College Camps

SUMMER STEM PROGRAMMING

SUMMER STEM offers day and residential camps each summer designed to be an inclusive learning environment for young scholars to experience STEM education across multiple avenues in a collegiate setting. Curriculum varies each summer with multiple academic departments leading experiences. Young scholars have participated in activities ranging from bridge building simulations (Civil Engineering), to soap making (Chemistry), to coding Arduino systems, and understanding and experimenting with food psychology. Scholars are provided with field trips that highlight STEM in real life and share conversations with industry experts and thought leaders from a variety of STEM fields.

Registrar's Office

Snell, Lower Level
(541) 885-1300
registrar@oit.edu
www.oit.edu/registrar

Major functions of the Registrar's Office are the maintenance of student records, registration, Web services, grade processing, transfer credit evaluation and community college articulation, degree checking, graduation, scheduling, enrollment certification and the catalog.

Academic Information

The General Catalog contains information about academic procedures and policies. Students should be familiar with this information. These annual catalog can be found on the Oregon Tech Web site at www.oit.edu/registrar.

Student Records

The Registrar's Office maintains information regarding academic progress, including grade rosters and permanent academic records (transcripts). Students and alumni may request transcripts at any time.

The Registrar's Office also collects and maintains accurate information about students, such as address, curriculum (major) and advisor's name. Much of this information is required for local and state enrollment reporting and for accurate mailing addresses. Changes to personal data such as address or name should be reported to the office promptly.

Privacy Rights

Under the Family Educational Rights and Privacy Act of 1974, students are entitled to review records, files, documents and other materials that contain information maintained by the university. Students may challenge information considered inaccurate or misleading. A list of university records, the responsible custodians and the university policy on records are available in the Registrar's Office.

Directory Information

The following information is considered Directory Information and may be made available to the public unless you restrict its release by written notice to the University Registrar by the last day to register or add courses for the current term.

Oregon Tech designates the following items as Directory Information: student name, current address, current telephone number, dates of attendance, classification (year in school), major field of study, most recent previous school attended, degrees and awards received (including dates), hometown, past and present participation in officially recognized activities and sports; and for members of athletic teams: age, height and weight.

Registration

The Registrar's Office publishes the class schedule and registration instructions for each term on the Oregon Tech Web site at www.oit.edu/registrar. It also maintains class rosters for instructors and processes grades. Personal information, class schedules and grades, as well as unofficial transcripts, are on Oregon Tech's Web for Student and also available in the office.

Resilience, Emergency Management and Safety (REMS)

Cornett Hall, 131/131A

(541) 885-0130 | REMS@oit.edu | https://www.oit.edu/rems

Business Continuity and Emergency Management

Cornett Hall, 131A

(541) 885-1225 www.oit.edu/rems/emergency-management

Environmental Health and Safety

Cornett Hall, 131

(541) 885-1556 www.oit.edu/environmental-health-safety

Resilience, Emergency Management and Safety (REMS) provides strategic leadership over the university's business continuity, campus resilience, emergency management and environmental health and safety portfolio. The department collaborates with key stakeholders to build organizational and individual resilience to adverse events, business disruptions, climate change, compliance risks, emergencies, hazardous environmental conditions, public safety incidents and safety risks.

In conjunction with its campus and community partners, Business Continuity and Emergency Management provides plans and procedures; conducts training, drills and exercises; and offers resources to support campus-wide readiness against all-hazards and threats. Through awareness programs, consultation services, inspections, training and written guidance Environmental Health and Safety continuously shapes a sustainable culture of regulatory compliance, resilience, risk mitigation and safety.

Strategic Enrollment Management

The Associate Vice Provost for Strategic Enrollment Management oversees the administration of the SEM division. SEM encompasses comprehensive planning and resource alignment processes aimed at increasing student success by identifying barriers and improving operations, promoting university-wide dialogue and collaboration and enhancing growth and revenue, while serving stakeholders and fulfilling the mission, vision, core values, and goals of the university.

The SEM division includes the offices of Academic Advising & Retention, Admissions, Educational Partnerships and Outreach, and Financial Aid. Collectively, these four departments align the services and support that cover the entire enrollment spectrum at Oregon Tech.

Strategic Partnerships and Government Relations

Portland-Metro
(503) 821-1247
www.oit.edu/strategic-partnerships

The Office of Strategic Partnerships (OSP) and Government Relations promotes and oversees industry and government relationships at the Oregon Institute of Technology. The staff is responsible for campus-wide promotion of the University's economic development mission by facilitating the external relationships that enable the University to contribute to the vitality of its campus regions and the state of Oregon.

The OSP has responsibility for:

1. building long-term partnerships with businesses and industry associations that are crucial to Oregon Tech's mission
2. providing support to secure external funding by leveraging private sector partnerships for grants and sponsored projects
3. proactively working with faculty to develop collaborations with industry that lead to sponsored projects, commercialization and entrepreneurial opportunities
4. building an alliance of local, state and national support for Oregon Tech's policy and funding priorities
5. representing the University on strategic partnerships, industry affairs, and legislative advisory councils

The OSP collaborates with the Office of Sponsored Projects & Grants Administration and the Office of Innovation and Technology Transfer to determine Oregon Tech's research priorities and align faculty research interests with industry, other universities, and economic development and research organizations. Operationally, the Office of Strategic Partnerships reports to the President to advance the University's strategic priorities.

Business and Industry Partnerships

The Office of Strategic Partnerships assists Oregon Tech's faculty at all locations to connect to industry partners and advisors to ensure that Oregon Tech's courses integrate new technologies and are responsive to business needs for skilled professionals. Businesses throughout the Pacific Northwest, such as Intel, Pacific Power, Maxim, PCC Structurals, FLIR, Mentor Graphics, JELD-WEN, Kaiser, Providence and the Boeing Company, send their best and brightest to Oregon Tech for professional development so they can advance into engineering, technology, health care and management positions within their companies.

Oregon Tech's business partners participate on Industry Advisory Councils, support students through internships and sponsored student projects, teach as adjunct faculty, recruit graduates for jobs, donate labs and equipment, and sponsor applied research. Oregon Tech could not fully execute its mission without the engagement and support of industry partners.

Oregon Tech is a member or partner with the Smart Grid Oregon, Drive Oregon, Oregon Solar Energy Industry Association, Renewable Northwest Project, Oregon Manufacturing Innovation Center, Oregon BEST (Built Environment & Sustainable Technology), Manufacturing 21 Coalition, Pacific Northwest Defense Coalition, Gorge Technology Alliance, Technology Alliance of Oregon, Oregon Manufacturing Extension Partnership, Oregon Workforce Investment Board and several local workforce boards, Oregon Transportation Research and Education Consortium, Oregon Health care Workforce Institute, and the Greater Portland, Klamath Falls, Tualatin, and Wilsonville Chambers of Commerce.

Government Relations

Oregon Tech's government relations activities support the university community's vision "Oregon Tech will be a nationally recognized public polytechnic university delivering in-demand, industry-focused degrees and graduates ready to meet workforce needs in Oregon and the Northwest."

Working with local, state and national elected and appointed leaders, Oregon Tech's government relations efforts are focused on enhancing student and graduate success, continuing excellence in applied degree programs, providing statewide educational opportunities, advocating for state funding for educational resources and capital projects, and increasing service to the community.

Oregon Tech provides information to local, state and national legislators and policy makers on:

- increasing access for rural and under-served students to science, technology, engineering and math (STEM) degree programs
- workforce development support for local industries, such as health care, energy, and manufacturing
- education policy and reform including Oregon Tech's initiatives to achieve the state's and nation's educational goals
- financial aid and student access initiatives, with a focus on rural students and first-generation college students
- re-authorization bills that impact Oregon Tech's portfolio of programs

- local, state, and federal competitive grants to enhance Oregon Tech's degree programs and net-zero campus initiatives

Title IX

Title IX Office, LRC 225
(541) 885-1108
titleix@oit.edu

The Title IX Coordinator is charged with oversight and enforcement of Oregon Tech's compliance with Title IX of the Education Amendments. Complaints of gender-based or sex-based discrimination, sexual harassment, and sexual assault should be immediately reported to Oregon Tech's designated Title IX Coordinator.

Athletics and TechRec

(541) 885-1634
oregontechowls.com

The mission of the Oregon Tech Athletic Department and the TechRec Fitness Center is to facilitate growth and development among our students. The department provides a broad-based athletic program that creates educational opportunity to benefit personal health and fitness to the campus community through our TechRec. Oregon Tech Athletics boasts some of the best facilities in the NAIA, which include Danny Miles Court, John and Lois Stilwell Stadium, the Oregon Tech Soccer Stadium, TechRec, and a brand new track and press box at John Moehl Stadium. Please visit https://oregontechowls.com/facilities to view our first-class facilities. Oregon Tech competitive athletics teams include men's and women's basketball, cross-country, soccer, golf, track and field, women's volleyball, women's softball, and men's baseball. Oregon Tech also supports a men's Rugby program as an extramural sports.

Athletics, TechRec, Intramurals, and Extramural Sports are funded by sales revenue (tickets, concessions, camps etc.), Incidental Fees, Oregon State Lottery funds, State General Appropriations, and contributions from the community through the Oregon Tech Foundation.

Competitive Athletic Teams

The Oregon Tech Athletic department is dedicated to preparing our student-athletes for professional and personal success in the real world by learning the values of integrity and excellence on the court, field, and in the classroom. To that end, we are committed to field teams with the talent and ability to compete at the top of the Cascade Collegiate Conference, as well as regionally and nationally in the NAIA while representing Oregon Tech with dignity and class. To date, Oregon Tech has brought home five NAIA National Championships in team sports – men's basketball in 2004, 2008 and 2012; softball in 2011, and women's cross-country in 2018. The privilege of participation in intercollegiate athletics and dedication to team goals provides a classroom where students may experience the development of skills, sportsmanship, loyalty, self-discipline, and responsibility while learning the values of winning, losing, and competing. The Oregon Tech athletic program contributes to campus life by providing a focal point for social interaction, leadership development, involvement in peer support groups, and entertainment.

Intramural Sports

The Oregon Tech intramural program offers a variety of individual and team events. We hope that our program and its diversity will invite students to participate in at least one event during the academic year. Call (541) 885-1561 for more information.

TechRec (Student Fitness Center)

TechRec is the student fitness center. For more information about workout facilities available to students, please visit https://oregontechowls.com/sports

The Tech Nest

College Union, 1st Floor
(541) 885-1058
bookstore@oit.edu

The Tech Nest is your resource for Oregon Tech apparel, gifts and souvenirs. We hope you stop by and check out an easy way to get your Oregon Tech gear!

Campus Dining

College Union, 2nd Floor
(541) 885-1076
oit.sodexomyway.com

Dining services, provided by Sodexo Inc., offer a dining program with services in several locations across campus, and menu selections that include just about every item you can imagine.

The Marketplace features a wide variety of fresh food designed to satisfy everyone's appetite with food choices to rival restaurant favorites. The Bistro is a quick-serve coffee/espresso and light meals venue located on the first floor of the College Union. The Owl Express in the College Union rotates its menu throughout the term. Duffie's, located in the Purvine building, offers a variety of fresh items to get you going in the morning or for a quick pick-me-up between classes. And, the café available in the CEET academic building is a great place to stop for a hot beverage and enjoy the view. The Night Owl, in the residence hall, is open in the evening and offers a selection of beverages and snacks to satisfy that late night hunger.

Document Resource Center

College Union, 1st Floor
(541) 885-1894
servicecenter@oit.edu

The DRC is a one-stop shop for printing and bulk mailing needs. Services are available to faculty, staff, and students.

Black and white, color, digital printing, as well as laminating, comb binding and gluing are available at low costs. Electronic job submission provides the campus with access to services and completed jobs can be delivered to campus mailboxes within 24 hours.

Mail services include bulk mailing; mail merge; folding and inserting; and postcard mailings. Special requests will be addressed on an individual basis. Hours of operation are 7 am to 5 pm Monday through Friday.

Housing and Residence Life

Housing Office Residence Hall, A151

(541) 885-1094

housing@oit.edu

www.oit.edu/campus-life/housing

Housing and Residence Life encourages self-responsibility, a necessary ingredient for the accomplishment of academic, social, and personal objectives. Oregon Tech's Housing and Residence Life program provides a vital aspect

of a student's educational experience, from support in the classroom to extracurricular activities designed to supplement in class learning. On-campus housing emphasizes providing accommodations that are attractive, safe, reasonably priced, and offering stimulating programs that satisfy individual needs for privacy, community life, diversity in living arrangements, and educational growth. In the Housing Office, students can find answers to housing-related questions, gain assistance with personal matters, consult with staff, make suggestions for improvements, discuss financial issues, and receive assistance for a variety of housing related concerns and interests.

Residence facilities at Oregon Tech are operated on a self-supported financial basis. Living on campus relieves the student of many time-consuming and expensive tasks, including driving to and from campus and preparing meals. With this extra time and financial savings, students can devote more energy to their studies, participate in non-academic learning experiences, and enjoy recreational and stress-relieving pursuits, making new and often lifelong friends.

Students living on campus must sign up for the meal plan. Apply now to live on campus at Oregon Tech! Visit our webpage at www.oit.edu/campus-life/housing, click on the Apply button to gain access to the housing portal, and follow the steps to apply for on campus housing!

Completed applications for on-campus housing received in the Housing Office by May 1st are guaranteed a space on campus for the upcoming academic year.

Room-and-Board Rates

Room-and-board rates at Oregon Tech are announced publicly after university approval. Current rate information and any other information concerning Housing can be obtained from the Housing and Residence Life Office, Oregon Tech, 3201 Campus Dr., Klamath Falls, OR 97601-8801, or online at www.oit.edu.

Student Services (services may vary by campus location)

Student Involvement & Belonging

Klamath Falls, College Union 107

Portland-Metro, WV 432
(541) 885-1829
www.oit.edu/get-involved

The Department of Student Involvement & Belonging (SIB) is "Where Students Connect!" We promote the holistic growth and development of Oregon Tech students through involvement and support. We create a community where all feel a sense of belonging. SIB provides opportunities for student engagement that is both beyond and interconnected with the academic experience. These include – New Student Programs: Orientation S.O.A.R.-ing Into Success, and Week of Welcome (WOW) program at the beginning of academic year. Get Involved: Over 75 Registered Student Organizations (RSOs) to enhance your Oregon Tech experience and make friends. Leading Change: Opportunities to fine tune leadership and cultural competency skills while at Oregon Tech and prepare for your industry-specific career as a marketable leader. Give Back: Community service offerings as a Volunteer Owl to support local and campus partner communities. Lean In & Stretch: Opportunities to step away from the familiar, try new ideas, experience new cultures, and learn from people different from yourself with Diversity & Belonging programs, International Student Services, and Veteran Student Services. Putting the TECH in Oregon Tech: SIB leads the management of the Oregon Tech App, a tool for students to get connected with events, and learn about Oregon Tech services, hours of operations for office and campus departments.

Where Students Connect

Student involvement has been shown to correlate with academic and career success. Programs and activities are aimed at fostering a sense of community at Oregon Tech. As a student, you can be involved in a variety of ways. You could start or join a campus club or organization, serve on a committee, run for student government, or apply for various student staff employment positions.

Student Involvement & Belonging (SIB) invites you to get involved in any way you can! We strive to build programs and offer activities which foster a vibrant community, provide an experience of belonging, and celebrate the unique talents and interests of the student body. Opportunities are created for hands-on learning, self-discovery, leadership, teamwork, and community citizenship. Students are encouraged to "find their home" at Oregon Tech through one or many opportunities and truly make their college experience their own.

Registered Student Organizations (RSOs): Student Clubs & Student Programs

Student organizations add another important dimension to life on campus. Our over 75 student clubs span across four categories to meet, study, and take part in professional development opportunities such as conferences and competitions related to their majors. These student club categories include: (1) academic-based, (2) identity and cultural-based, (3) social and recreational-based, and (4) fraternity/ sorority organizations. Student organizations also work together to support service learning by participating in a variety of community service projects in our local campus community, at home and abroad.

In addition, there are ten student programs, which serve to enhance the Oregon Tech community by providing student resources and involvement opportunities. Student programs include: KTEC Radio Station, The Edge- Student Newspaper, Outdoor Program, Oregon Tech Broadcasting, Associated Students of Oregon Institute of Technology (ASOIT) student government, Campus Activities Board, Residence Hall Association, The Treehouse- diversity center, Student Veterans Program, and Oregon Tech Gaming. The student programs have paid student staff employment positions and may have a physical space on campus for either the specific student program operations and/or community-building space for ALL Oregon Tech students to visit.

KTEC Campus Radio Station

www.oit.edu/ktec

89.5 FM

KTEC hit the milestone of their 70th year of operation in the spring of 2022 and is the oldest FM station in Southern Oregon. KTEC is operated by student staff and volunteers and is programmed to serve the interests of the Oregon Tech student body and the Klamath Falls community. Throughout the school year, KTEC provides a varied program schedule of music, educational material and special events. Any student interested in radio broadcasting is encouraged to join KTEC.

The Edge- Student Newspaper

https://www.oit.edu/SIB/student-media

The Edge is student led and student read. Oregon Tech's student newspaper, The Edge, is a publication written by students from all majors and produced by a student staff.

Outdoor Program (OP)

www.oit.edu/op

The Oregon Tech Outdoor Program (OP) is a student-funded and student-led organization that allows students to enjoy fun activities and the beautiful scenery that surrounds them for an extremely low and reasonable price! Past trips have

included: camping, rafting, skiing, mountain biking, and skydiving. In addition to sponsoring trips, the OP also offers low-cost rental equipment for a variety of outdoor activities.

Oregon Tech Broadcasting (OTB)

www.oit.edu/otb

Oregon Tech Broadcasting (OTB) is the student-run video production program at Oregon Tech. OTB films campus events and provides video services to campus organizations upon request. Anyone who is interested in TV/video/film productions, acting or comedy is encouraged to get involved with OTB. No previous experience is necessary. OTB also offers free equipment rental and tutorials for all Oregon Tech students.

Associated Students of Oregon Institute of Technology (ASOIT) Student Government

www.oit.edu/asoit

The purpose of ASOIT student government is to supplement the social, cultural, physical, and educational interests of its members, and to represent the individual and collective interests of the students of Oregon Tech. All students are encouraged to join in the general meetings and learn more about your student government as well as learn more about how to get involved.

Campus Activities Board (CAB)

www.oit.edu/campus-life/student/programs/campus-activities-board

The purpose of the Campus Activities Board (CAB) is to provide a wide array of activities, opportunities, and entertainment for all students, taking into consideration their expressed wishes, interests, and needs. A broad array of events has been offered to students including bands, comedians, student talent shows, lectures, discount bowling and movie nights, and homecoming week.

Residence Hall Association (RHA)

www.oit.edu/campus-life/housing

Each student living on campus is a member of the Residence Hall Association (RHA). This organization works with the Residence Life staff to promote, organize, coordinate and implement programming during the academic year. RHA sponsors everything from "Spring Fling" to movie nights. RHA is funded in part through incidental fees and belongs to the residents.

The Treehouse

www.oit.edu/treehouse

The Treehouse is a student-led organization that focuses on spreading awareness and inclusivity. The Treehouse is responsible for helping plan, advertise, organize and lead student events focused on increasing a deeper understanding and appreciation for diversity, bringing people together, while making something happen on campus and in people's lives.

Our vision is centered on a deeper understanding and appreciation for diversity, inclusivity, and equality for the people of Oregon Tech, Klamath Falls, and the world at large. Our mission is to provide programs, education, events, physical space, support and advocacy to the peoples of Oregon Tech, to work actively against oppression, hate, sexism, racism, inequality and other injustices, and promote a safe and welcoming environment for women, people of color, the LGBTQIA+ community, and other diverse groups.

Student Veterans Program (SVP)

www.oit.edu/svp

The members of the Student Veterans Program (SVP) are dedicated to satisfying the needs of veteran and military-connected students (Active Duty, reservist, and dependents). Visit the Veteran Resource Center in the College Union to find support and create connections.

The SVP reaches out to the greater Oregon Tech and Klamath Falls community to seek ways of building friendships and partnerships that are based on the same honor, duty, loyalty, and selfless service instilled in all veterans.

Oregon Tech Gaming (OTG)

www.oit.edu/esports

Embrace the world of eSports! Online video game participation continues to rise, and Oregon Tech Gaming (OTG) is a student-led and student-run program that hosts opportunities to get involved as an e-Sports gamer. Plan to attend a gaming event, or visit the gaming lounge in the College Union.

New Student Programs

Orientation: S.O.A.R.-ing Into Success

Find Support, Explore Opportunities, Achieve Academic Success, and Build Resiliency (SOAR)… ALL while choosing your adventure attending activities and meeting new Owl's days before the start of fall classes for an Oregon Tech orientation experience that prepares first-year and transfer students to SOAR as an Owl during your first year at Oregon Tech.

This is self-paced introduction to all things Oregon Tech. Once you've attended New Wings and registered for class you will have the opportunity to attend Orientation: SOAR-ing Into Success days before the start of fall classes.

Week of Welcome (WOW)

Kick off the year with events, games, and casual get together activities. Week of Welcome (WOW) program is held at the beginning of each academic term, the first week of classes in fall, winter, and spring terms.

WOW is designed to welcome new students and returning Owls through a variety of social interaction events, and opportunities to meet with Oregon Tech departments and staff/faculty to assist students with acclimating to Oregon Tech.

Family and Alumni Weekend

Family and Alumni Weekend is open to all Oregon Tech students, faculty, staff, alumni, and their families! Bring your children, siblings, parents, grandparents, partners, and friends and join us for the weekend!

Leadership & Service

Leadership Development- Wing Shops: Where Leaders Learn to Fly

Oregon Tech offers student leadership and cultural competency development opportunities to lead change on campus and in their chosen careers through providing workshops called, "Wing Shops: Where Leaders Learn to Fly" hosted by a wide range of departments, staff, faculty, and student peers. In order to lead with change, the themes include: (1) civil and cultural engagement, (2) cognitive complexity, (3) interpersonal development, (4) intrapersonal development, and (5) practical skills.

Service-Learning & Community Service

The Volunteer Owls foster service-learning and local community engagement. The Volunteer Owls program host service projects in and around Klamath Falls throughout the year. Many opportunities exist for community service

projects both on and off-campus. For tracking community service hours or to find suitable opportunities to engage in service-learning, go to www.oit.edu/community-service.

Diversity & Belonging

Klamath Falls, College Union 107

Portland-Metro, 1st Floor Student Services
(541) 885-1829
https://www.oit.edu/campus-life/multicultural-student-services

Lean In & Stretch: Embrace Differences

Civic and cultural engagement is a benefit of getting involved on campus. At Oregon Tech, you will find a diversity of people, ideas, opportunities, and experiences. That diversity is one of the benefits of being a Hustlin' Owl. Step away from the familiar, try new ideas, experience new cultures, and learn from people different from yourself. Attend annual cultural celebration month/week events, and create a sense of belonging with fellow friends and peers

Student Involvement and Belonging (SIB) offers Diversity and Belonging programming through promoting a dynamic, diverse, and inclusive campus through events, programs, and relationship building with all members of the Oregon Tech community. We mentor and empower student populations and communities, with a specific focus on understanding difference, promoting social justice, cultural awareness, and intersectionality. We provide Oregon Tech with opportunities (trainings, workshops, events) throughout the year that expand the dialogue around diversity, equity, and inclusion among faculty, staff, and students. Our commitment to diversity includes bringing people together to create a community at Oregon Tech where all feel a sense of belonging.

International Student Services

Student Involvement and Belonging (SIB) partners with International Student Services, who serves as a resource for international students and staff, international student orientation and advising (personal, academic and social); F1 visa compliance; SEVIS; and the Study Abroad Program. International Student Services strives to provide the best services and exceptional support. If you ever have any questions or concerns about your immigration status, adjusting to American customs, or whatever the issue might be, please connect with staff at www.oit.edu/campus-life/international.

Veteran Student Services

Student Involvement and Belonging (SIB) partners with Veteran Student Services, who serves as a resource for veteran and military-connected students (Active Duty, reservist, and dependents). In partnership with other university and community entities, Veteran Student Services provides navigation and connection assistance with admissions, VA education benefits, career services, disability resources, financial aid opportunities, transfer credit evaluations, peer advising, connection with the Student Veterans Program (SVP), and a host of other community and university support services. Learn more at www.oit.edu/college-costs/financial-aid/veterans.

Basic Needs Hub

Navigating Student Basic Needs Resources

Oregon Tech offers free resources and staff to get students connected with local community-based support services in order to meet their basic needs with regards to financial instability, food-insecurity, housing needs locally, learning about navigating and applying to local, state, and federal need-based programs towards personal enrichment and student success. Campus-based programs for ALL students to benefit from include: Bird Feeder student food pantry, Owl Feathers Exchange clothing closet, and Book Depot textbook recycling program. Learn more about student basic needs at: https://www.oit.edu/campus-life/student-support/community-resource.

Helping students to bridge the gap between where they are currently, to their future full of hope and endless possibilities. Reach out to get help with:

- Holistic needs
- Financial instability
- Food-insecurity (SNAP- food stamps)
- Housing needs
- Family needs
- Childcare
- OHP (Oregon Health Plan) insurance
- And more!

Klamath Falls: The staff and services of Basic Needs Navigation are located on the first floor of the College Union (CU), and can be reached at basicneeds@oit.edu or visiting https://www.oit.edu/campus-life/student-support/community-resource.

Portland-Metro: The staff are located on the Klamath Falls campus, but Community-Based Student Resources can be reached at basicneeds@oit.edu or visiting https://www.oit.edu/campus-life/student-support/community-resource.

Bird Feeder: Student Food Pantry

The Bird Feeder is a free student food pantry (for immediate consumption & emergency groceries). This resource is maintained by financial contributions & donations of nonperishable food items.

Klamath Falls: The Bird Feeder is located on the first floor of the College Union (CU), inside the Basic Needs Hub. Requests for emergency groceries and/or hygiene products can be emailed to basicneeds@oit.edu.

Portland-Metro: Requests for emergency groceries and/or hygiene products can be emailed to basicneeds@oit.edu.

Owl Feathers Exchange: Clothing Closet

The Owl Feathers Exchange is managed by Basic Needs Navigation Services and hosts gently used clothing that are donated by the Oregon Tech community to provide accessible clothing options (professional attire and general use clothing) for ALL students to access.

Klamath Falls: The Owl Feathers Exchange is stored in the first floor of the College Union (CU) inside the Basic Needs Hub. Various Clothing Closet pop-up events occur throughout the academic year on campus for students to access the gently-used clothing.

Book Depot: Textbook Recycling Program

The Book Depot hosts gently textbooks for ALL students to browse and check out for uses during the academic term while class is in session, and is managed by Basic Needs Navigation Services. Students can view the current inventory at https://oitcampuslife.librarika.com/. Please note: We do our best to keep the inventory updated, but some books may not be available, even if they are listed.

Klamath Falls: The Book Depot is located on the first floor of the College Union (CU) inside the Basic Needs Hub.

Career Services

Klamath Falls: LRC, 219
(541) 885-1020
career@oit.edu

Portland-Metro: Room 128
(541) 885-1020

career@oit.edu
www.oit.edu/career

Career Services works in comprehensive ways to support Oregon Tech's students and alumni in developing and achieving their career goals. Services include: individual career advising; workshops and classroom presentations on resume writing, job interviewing, job search, and applying to graduate school; on-campus employer recruitment, career fairs, and a wide range of career resource materials.

Career Services also offers all students and alumni access to Handshake, a centralized job portal where employers connect with students for on-campus jobs, part-time off campus jobs, internships, and full-time career positions.

College Union

Information Desk
(541) 885-1030
www.oit.edu/visitors-info/college-union

The College Union (CU) is the center of student activity on campus. Located within the CU are the offices of Admissions, Financial Aid, student government offices (ASOIT), Student Involvement & Belonging, the Treehouse, Student Affairs suite, Campus Dining operations, The Edge student newspaper, the Tech Nest, the Outdoor Program, the Student Veterans Program and lounge, Esports: Oregon Tech Gaming, and College Union auditorium. In addition, there are comfortable study and lounge areas and meeting rooms for both student and community use. Coffee house functions, lectures, special classes, shows, dances, and movies are among the typical events scheduled in this facility.

For information about using space in the College Union or to make a reservation, contact the CU Information Desk located on the lower level, south of the main entrance.

Disability Services

Klamath Falls: LRC 229C, (541) 851-5227

Portland-Metro: Room 432, (503) 821-1305
access@oit.edu

www.oit.edu/academics/ssc/disability-services

Oregon Tech is committed to accommodating the academic and programmatic needs of qualified students with disabilities. Students with a documented disability who require assistance or academic accommodations should contact the office of Disability Services at access@oit.edu immediately to discuss eligibility, and to ensure timely provision of services. Please contact the Disability Services office at the campus closest to you: Klamath Falls (541) 851-5227 or Portland-Metro (503) 821-1305. Specific information and Disability Services forms can be found at www.oit.edu/academics/ssc/disability-services.

Integrated Student Health Center (ISHC)

Phone (541) 885-1800
Fax (541) 885-1866
health@oit.edu

The Integrated Student Health Center (ISHC), located at the main campus in Klamath Falls, provides general medical care for illnesses and accidents, medical referral, counseling and wellness programs. Students taking six or more on-campus credit pay the Student Health fee each term, which covers most services offered by the clinic (including counseling, medical appointments, and a variety of other services); see section below for more details. Students with less than six credit hours can utilize ISHC services by paying the student health fee. Students at the Portland-Metro campus also pay a Student Health fee, which funds a counselor on-site.

Health Requirements to Register

Newly admitted students must complete the following health requirements upon admission (note: International students must complete a similar process prior to coming to campus; work with your Admissions Counselor to provide the required information). Failure to complete these requirements will result in a "health hold" on the student's account, affecting a student's ability to conduct Business Office transactions and to register or make changes to courses. Once students are admitted, they will be able to access the Student Health Portal, located in TECHweb, under the "Student Resources" tab. After confirming their date of birth, students will need to do the following:

- Access the required forms by clicking on "Forms"
- Complete the "Health History Form" by clicking on the hyperlinks
- Acknowledge "Privacy Practices" and "Consent for Treatment" by clicking on their links
- Click on the "Immunizations Page in EMF Forms" hyperlink and provide the dates that they received 2 doses of the Measles or MMR vaccine. (Note: Two doses of measles/mumps/rubella vaccine (MMR) are required for all full-time college students born on or after Jan. 1, 1957.The first dose must be given after the first birthday. The second dose must be after 1989.) This requirement is supported by: Oregon Administrative Rule 333-050-0130 and the American College Health Association Guidelines: Recommendations for Institutional Pre-matriculation Immunizations, April 2014.

Medical Clinic Services

Oregon Tech's ISHC health care providers are committed to providing high quality, personalized care. The medical clinic is staffed by a physician, advanced practice nurse, registered nurse, and a psychiatric nurse. Diagnosis and treatment of acute and chronic illnesses, birth control and emergency contraception, routine laboratory procedures, immunizations, wart removal, gynecological exams, minor surgery and care of minor injuries are some of the services provided. Major emergencies are referred to Sky Lakes Medical Center adjacent to the Klamath Falls campus. Referrals are made to specialists as needed. Visits are free with low costs for medications, laboratory work, immunizations, and some treatments.

Counseling Services

Counselors are available to discuss personal, academic and career concerns. Crisis services are available, and referrals are made to community resources if needed. Sessions are confidential and are provided free of charge to students enrolled for six or more on-campus credits. Screening is also available for Attention Deficit Hyperactivity Disorder for an additional fee.

Personal counseling focuses on concerns such as self-esteem, relationship issues, academic performance, family difficulties and troubled sleep. Some specific issues dealt with are: depression; anxiety, substance abuse, suicide, conflicts with parents, spouses or children; loneliness; dating problems; study skills; coping with past or present abusive situations; and grief. A psychiatric nurse practitioner is available for psychotropic medicine management.

Wellness Programs

A Health Educator is on ISHC staff are available to assist students in staying healthy and fit while attending Oregon Tech, and encourage students to "Choose Well". Free individual appointments are available for personalized health and fitness programs, BMI testing, nutrition education and smoking cessation. Campus-wide awareness events and health promotion programs are also provided on a regular basis campus-wide, focusing on topics such as Cancer Awareness and Sexual Assault Prevention. Please call the ISHC to make an appointment or learn more about various campus-wide wellness activities.

Fees/Charges

As indicated previously, students taking six or more on-campus credit hours pay a Student Health fee each term. This fee entitles students to services offered by the medical clinic, counseling and wellness programs. Other students can use the center if they pay the health fee. Office visits are free for illness and injury, evaluation, treatment, questions and other reasons. However, additional charges may be necessary for medications, treatments, supplies, immunizations and laboratory tests. Costs for these services and supplies are kept well below the market price for student affordability. No cash is necessary at the time of visit and no insurance is required. All medical expenses rendered outside the ISHC from private physicians, laboratories, or hospitals are the student's financial responsibility.

Student Affairs

College Union, 2nd Floor

(541) 885-1011

www.oit.edu/student-affairs

In the Student Affairs Office you will find the Vice President for Student Affairs, as well as the Associate Vice President for Student Affairs and Dean of Students and our Executive Assistant. The division of Student Affairs provides services to students in the following offices: Athletics, Career Services, College Union, Housing & Residence Life, the Integrated Student Health Center, Student Involvement & Belonging, Veteran Student Services, and the Center for Academic Resources and Engagement Services (CARES),, which is composed of ACES (formerly Disability Services), Peer Consulting Services, and TOP (a TRIO program).

The staff in the Student Affairs Office maintain close relationships with all Oregon Tech students, including the Klamath Falls campus, Portland-Metro campus, Online, Salem, Seattle and student organizations. Student Affairs staff are available for consultation and collaboration on all matters pertaining to student well-being and success.

Tech Opportunities Program - TRIO

Learning Resource Center, Room 228
(541) 885-1125
TOP@oit.edu
www.oit.edu/academics/ssc/tech-opportunities-program

The Tech Opportunities Program (TOP) is a federally funded TRIO program designed to assist first-generation students, low-income students, and student with disabilities in completing their degrees at Oregon Tech. The dedicated advising team works closely with students to comprehensively assess academic and financial needs and to develop personalized plans for college success.

Participants may be eligible for a variety of academic support services, including group and/or individual tutoring, peer mentoring, networking with other students, college-success workshops and classes, supplemental academic advising, and limited financial assistance. Learn more about TOP at www.oit.edu/academics/ssc/tech-opportunities-program.

Testing Services

Klamath Falls: LRC 230, (541) 851-5226
testing@oit.edu

Portland-Metro: 503-821-1250
portland@oit.edu

www.oit.edu/academics/ssc/testing-services

Testing services are available for students with approved accommodations through the Disability Services office. Make-up testing is also available to students who have missed exams due to illness, athletic travel schedules, or other faculty approved occurrences.

Veteran Student Services

541-885-0191

Learning Resource Center, Room 219C

Veteran Student Services is Oregon Tech's one-stop-shop to support current and incoming veteran and military-dependent students. In partnership with other university and community entities, Veteran Student Services provides navigation and connection assistance with: admissions, VA education benefits, career services, disability resources, financial aid opportunities, transfer credit evaluations, peer advising, connection with the Student Veterans Program (SVP), and a host of other community and university support services. Additionally, Veteran Student Services provides unique learning opportunities for students, faculty, and staff geared at helping veterans acclimate and be successful in the higher education environment. For more information, please contact Veteran Student Services Director Jay Headley at jay.headley@oit.edu.

University Development

Hoss Business Center
(541) 885-1130

The University Development Department is charged with providing financial support of Oregon Tech's mission by connecting donors, alumni, and friends with philanthropic opportunities at the university in partnership with the Oregon Tech Foundation. University Development works to build positive relationships with students, faculty, staff, alumni and friends of the university to enhance and create opportunities that foster a tradition of philanthropic support. University Development engages in initiatives and activities that embody institutional values and positions Oregon Tech among the nation's leading technological, engineering, and health professions universities. Fundraising, alumni relations, community outreach and other activities serve to promote the distinctive role and numerous educational, research and public service contributions of Oregon Tech throughout our communities, the nation, and internationally.

The Oregon Tech Alumni Association

(503) 821-1145
alumni@oit.edu
alumni.oit.edu

The Alumni Relations office, led by the Director of Alumni Relations, promotes interactions and loyalty of alumni and currently enrolled students. Services and activities include regional social events, student activities, reunions and continuing education programs. Alumni have the opportunity to stay connected to other alumni through the university's alumni program and platforms.

The Oregon Tech Alumni Association, established in 1949, is guided by the Alumni Advisory Board and exists to support and promote Oregon Tech as a premier learning institution and to provide a structure for alumni affiliation. Alumni membership is free and automatic to anyone who has completed at least 90 credits at Oregon Tech. Areas of special interest for the Alumni Association include assisting the university with new student recruitment activities, career networking, social and educational activities, and the financial support of Oregon Tech. The Alumni Association is an affiliated organization of the Oregon Tech Foundation.

The Oregon Tech Foundation

(541) 885-1130

The Oregon Tech Foundation was established to support the educational, cultural, charitable, and service activities of Oregon Tech through philanthropic support. Established as a 501(c)(3) tax-exempt organization, the Foundation is a separate legal entity from the University and is the designated charitable arm of the University.

Governed by a volunteer Board of Directors, the Foundation is tasked with management and growth of the assets of the Foundation, participating in university fundraising efforts of Oregon Tech, and providing support to Oregon Tech and students. The directors represent a broad range of community leaders, alumni, and private benefactors.

The Foundation has enriched the University and student life by combining their efforts with the Oregon Tech administration and community leaders to accomplish some of the most notable projects on campus:

- Center for Excellence in Engineering and Technology
- Cornett Hall renovation
- Martha Anne Dow Center for Health Professions
- Jesse A. Crabtree Civil Engineering Learning Plaza
- John and Lois Stilwell Stadium
- John F. Moehl football stadium construction and renovation
- Oregon Tech Foundation Scholarship Program
- Faculty and Student Innovation Fund
- Equipment and Technology Fund
- Owls' Worth Financial Literacy Program
- Shaw Historical Library

Enabling Oregon Tech to build a great university and maintain an unparalleled level of excellence for students, the Foundation annually provides approximately $2.5 million to Oregon Tech. The Foundation provides student support through numerous scholarships, innovation through student projects, hands-on experiences with equipment in modern classrooms, labs, and buildings, and providing a professional network through alumni relations.

The Foundation works closely with its affiliated organizations, including the Oregon Tech Alumni Association and the Shaw Historical Library.

Directories

Governance of Oregon Institute of Technology

Prior to 2015, the Oregon Institute of Technology was governed by the Oregon State Board of Higher Education, the governing board for the seven public universities in Oregon. In April 2014, the State Board of Higher Education authorized the Oregon Institute of Technology to establish a Board of Trustees, appointed by the Governor and approved by the Senate.

Effective July 1, 2015, the University became an "independent public body" governed by the Board of Trustees with every authority necessary or appropriate for the operation of a major public university. The Oregon Tech Board of Trustees approves the University's mission, programs, budgets, and strategies; and works with the Higher Education Coordinating Commission (HECC) to provide final approval for the University's mission and any new academic programs.

Oregon Tech Board of Trustees

Members and term expiration dates:

Cecelia Amuchastegui, 2027

Stefan Bird, 2026

David Cauble, 2027

John Davis, 2026 (Chair)

Dr. Vijay Dhir, 2027

Dr. Johnnie Early II, 2027

Don Gentry, 2027

Kanth Gopalpur, 2026

Vincent Jones, 2026 (Vice Chair)

Phong Nguyen, 2024 (Faculty Representative)

Mike Starr, 2026

Michele Vitali, 2023

Mason Wichmann, 2024 (Student Representative)

Dr. Nagi Naganathan, University President, ex-officio member

Administrative Offices

President, Nagi G. Naganathan, Ph.D., ASME Fellow

Provost and Vice President for Academic Affairs and Strategic Enrollment Management, Joanna Mott, Ph.D.

Vice President for Finance and Administration, John Harman, M.B.A.

Vice President for University Advancement, Ken Fincher, Ph.D.

Vice President for Student Affairs, Mandi Clark, Ed.D.

Vice Provost of Research & Academic Affairs, Abdy Afjeh, Ph.D.

Associate Vice Provost for Academic Excellence, ChihChien "Linus" Yu, Ph.D.

Associate Vice President and Chief Information Officer, Tony Richey

Associate Vice President for Human Resources, Sandi Hanan, B.S.

Associate Vice Provost for Faculty Relations, Beverley McCreary, Ph.D.

Associate Vice President for Finance and Controller, Alicia Dillon

Associate Vice President for Student Affairs & Dean of Students, Mandi Clark. Ed.D.
Assistant Vice President for Government Relations, Vacant

Dean, College of Engineering, Technology and Management, Neslihan Alp, Ph.D.

Dean, College of Health, Arts and Sciences, Vacant

Assistant Dean, College of Health, Arts and Sciences, Michelle Butina, Ph.D., MLS.

Dean of Online Education and Global Engagement, Ruth Black, Ph.D.

Admissions, Josephine Ness, M.S., Director

Advising & Retention, Robert Evory, Ph.D., Director

Athletics, John Van Dyke, M.S., Director

Board Secretary, Vacant

Campus Security, Vacant

College Union, Josh Winter, Manager

Disability & Testing Services, Jennifer James, DM, Director

Educational Partnerships and Outreach, Carlene Starr, M.A.I.S., Director

Facilities Management and Planning Services, Thom Darrah, Director

Financial Aid, Tracey Lehman, M.M., Director

Housing and Residence Life, Bonita Bontrager, Director

Institutional Research, Farooq Sultan, B.S., Director

Integrated Student Health Center, Vacant

Library Services, Vacant

Marketing, Communication, and Public Affairs, Lacey Jarrell, M.B.A., Executive Director

Office of Diversity, Inclusion, and Cultural Engagement, Jennifer Wilson, Ph.D., Executive Director

Online Education & Global Engagement, RuthClaire Black, Dean

Oregon Manufacturing Innovation Center, Research & Development (OMIC), Vacant

Oregon Renewable Energy Center, Vacant

Payroll Services, Karen Blevins, A.S., Director

Procurement, Contracts and Risk Management, Vivian Chen, J.D., Director

Registrar's Office, Wendy Ivie, M.M., University Registrar

Resilience, Emergency Management & Safety, Doug Tripp, M.S., Executive Director

Sponsored Projects & Grants Administration, Vacant

University General Counsel, David Groff, J.D., General Counsel

Veterans Services, Don Stockton, Director

Oregon Tech Foundation Board of Directors

Alan Polaski, President

Christine Mangan , Vice President

Don Johnson, Treasurer

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Dan Withers

Rick Whitlock

Emeritus Directors

Timothy Bailey

Lance Bishop

Marge Bocchi

Sherrill Boyd

Greg Bulkley

Nancy Coffin-DeFeyter

Dave Cowan

Alan Craigmiles

William Early

Trudy Farr

Fred Foulon

John Gerbert

Winifred Hood

Gerda Hyde

Gary Johnston

Doug Kintzinger

Susan Laubengayer

Ron Loveness

James McCobb

John Novak

Andy Peterson

Jean Pinniger

Kristi Redd

Richard Siemens

Joan Staunton

Lois Stilwell

Ted Thom

Don VanLuvanee

Tom Van Thiel

Nancy Wendt

Ex-Officio

Ken Fincher, Executive Director

Nagi Naganathan, Oregon Tech President

John Harman, Oregon Tech Vice President for Finance and Administration

Chris Frasier, Oregon Tech Alumni Advisory Board President

Jeremy Morris, President, Shaw Historical Library

Administration

A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z

Omar Abdelnaby, (2024), Communications Specialist, Admissions.

Abdy Afjeh (2018),Vice Provost of Research and Academic Affairs. B.S., Sharif University of Technology (1997); M.S., University of Toledo (1981) ; Ph.D., University of Toledo (1984).

Carl Agrifoglio (2009), Director, IT Operations & Classroom Technology, Information Technology Services.

Corey Allender (2023), Access Services Manager, Library.

Neslihan Alp (2024), Dean of Engineering, Technology & Management.

Michael Anderson (2023), Head Coach, Track & Fireld and Cross Country, Athletics. B.S. Eastern Oregon University.

Diana Angeli (2006), Executive Assistant, President's Office.

Cody Apple (2020), Machining Solutions Researcher, OMIC.

Thomas Arce (2021), Director, Student Involvement & Belonging. MED, (2014) Iowa Sate University; B.A. (2012) University of Iowa.

Willow Augustine (2021), Financial Aid Counselor, Financial Aid. B.S. (2019), Oregon Institute of Technology.

Jennifer Bavarskas (2005), Health Educator, Integrated Student Health Center. B.A. (1991), University of Oregon; M.S. (2000), San Jose State University.

Julia Betts (2022), Executive Director, STEM Hub.

Ruth Claire Black (2023), Dean of Online Learning & Global Engagement. Ed.D., University of Southern California; J.D., Vanderbilt University.

Karen Blevins (2013), Director, Payroll Services. A.S. (2010), Klamath Community College.

Gale Bloom (2016), Assistant Director, Educational Partnerships & Outreach. M.A. (2013), University of Portland; B.A. (2012), Washington State University.

Bonita Bontrager (2024), Director, Housing & Residence Life.

Jacen Bridges (2022), Annual Giving Manager, University Advancement.

Desiré Brown (2019), Director, Career Services. B.S. (2019) Colorado State University.

RaShell Carvalho (2021), Leadership Gift Officer, University Advancement. B.A. (2008) Oregon Institute of Technology.

Katie Cavendish (2015), Program Manager, University Advancement. A.S. (2005), Mt. Hood Community College.

Shawni Cayeteno-Ramos (2021), Associate Director, Student Leadership Development & Cultural Engagement, Student Involvement & Belonging. M.S. (2021) Southern Oregon University; B.S. (2017) Southern Oregon University.

Vivian Chen (2015), Contracts Officer & Legal Liaison. J.D. (2011) University of California, Berkeley; B.A. (2006) Wellesley College;

Cindy Childers (2006), BAO Technical Advisor, Business Affairs. B.S. (2004), Oregon Institute of Technology.

Anna Clark (2018), Assistant Director, Budget Office. M.S. (2014), University of Wyoming; B.S. (2007) California Polytechnic State University.

Mandi Clark (2004), Vice President for Student Affairs. Ed.D. (2020), Concordia University-Chicago; M.S. (1999), University of Nebraska; B.A. (1997), Kansas State University.

Tammy Clark (2007), Executive Assistant, College Health, Arts and Sciences. A.S. (2006), Klamath Community College.

Courtney Clemmer (2022), Residence Life Coordinator, Housing & Residence Life.

Jason "Jake" Coatney (2007), Senior Counselor, Financial Aid. A.A. (2002), College of the Siskiyous; B.S. (2005), Eastern Oregon University.

Spencer Corey (2021), Associate Clinic Supervisor, Humanities & Social Sciences. M.Ed (2019) University of Utah; B.S. (2015) Brigham Young University.

Julie Daniels (2007), Scholarship Officer/Counselor, Financial Aid. B.A. (2003), Southern Oregon University.

Krista Darrah (2017), Operations Manager, Development. B.S. (1999), Oregon Institute of Technology.

Thom Darrah (2016), Director, Facilities Management Services.

Maria Depuy (2017), Financial Analyst, Budget Office.

Carrie Dickson (2014), Director, Online Learning, M.B.A. (2013), Southern Oregon University; B.S. (2009), Oregon Institute of Technology.

Alicia Dillon (2022), Associate Vice President & Controller, Business Affairs Office.

William Dowling (2016), Counselor, Integrated Student Health Center. M.S. (2013), Oregon State University; B.S. (2000), Park University.

Helen Drewel (2023), Executive Assistant & Project Manager, Finance and Administration.

Hunter Drops (2023), Assistant Coach, Track & Field, Athletics.

Jonathan Ellis (2023), Director of Marketing Communication for OMIC.

Robert Evory (2022), Director, Academic Advising & Retention.

Kimberly Faks (2019), Coordinator, Student Involvement, Student Affairs.

Ken Fincher (2020), Vice President, University Advancement.

Gretchen Fincher (2024), Admissions Counselor.

Savannah Fincher (2022), HR Generalist - Recruitment, Human Resources.

Mitchell Fink (2022), TechRec Coordinator, Athletics.

Anna Fowler (2021), Employer Relations Specialist, Career Services.

Carlos Garcia (2024), Admissions Counselor.

Michael Garrard (2007), Manager of Sales and Marketing, Athletics.

Alexis Garrison (2023), Head Coach, Women's Volleyball, Athletics.

Jacob Garsez (2020), Head Baseball Coach, Athletics. M.A. (2011), George Fox University.

Aaron Georis (2023), Regional Admissions Counselor.

Sarah Gibson (2023), Academy Coordinator, OMIC.

Brandon Gillette (2021), Custodial Supervisor, Facilities Management Services.

Mason Giustino (2023), Regional Admissions Counselor.

Celia Green (2020), Operations Assistant, Business Affairs. M.A. (2005), University of Wyoming; B.A. (1992), University of Wyoming.

David Groff (2018), University General Counsel. J.D. (1993), Willamette University; B.A. (1989), Dartmouth College.

Pamela Grove (2018), Assistant to University General Counsel. A.A, Coastline Community College.

Danny Guthrie (2021), Senior Admissions Counselor, Admissions. B.S. (2002), Sierra Nevada College.

Rachel Hanan (2022), Instructional Designer, Online Learning. Ph.D. (2010) University of Oregon; M.A (2006) University of Oregon; B.A. (2000) Beloit College.

Sandi Hanan (2008), Associate Vice President, Human Resources. B.S. (2013), Oregon Institute of Technology; A.S. (1999), Oregon Institute of Technology.

Dierdre Harlan (2009), Executive Assistant, Strategic Enrollment Management.

John Harman (2021), Vice President Finance & Administration. M.B.A. (1993), East Tennessee State University; B.B.A. (1989), East Tennessee State University.

Sarah Henderson-Wong (2017), Assistant Director, Benefits, Human Resources. M.S. (2005), Golden Gate University; B.A. (2000), San Francisco State University.

Ryan Henley (2023), Disability & Testing Coordinator.

Leticia Hill (2006), Procurement and Risk Officer. B.S. (2016), Oregon Institute of Technology.

Josie Hudspeth (2014), Student Affairs Systems Manager. M.A. (2013), California State University, Fullerton. B.A. (2011), California State University, Fullerton.

Brandy Hunter (2007), Assistant Director, Student Health.

Rebecca Ingerson (2024), Academic Advisor, Academic Advising & Retention.

Wendy Ivie (1999), University Registrar, Registrar's Office. M.M. (2005), Southern Oregon University; B.S. (1997), Oregon State University.

Penny Jahraus (2022), Director Career Connected Learning, Strategic Partnerships & Outreach

Jennifer James (2022), Director, Disability Services & Testing. Ph.D. (2021).

Lacey Jarrell (2022), Executive Director, Marketing, Communications & Public Relations. M.B.A. Western Governors University; B.S. University of Oregon

Cathey Jinich (2019), Counselor, Integrated Student Health Center. M.A. (2013), Naropa University; B.A. (2009), Massey University; B.A. (2005), Western State College.

Jennifer Kammerman (2021), Research Administrative Manager, OMIC. B.S. (1994) Brigham Young University.

Grant Kirby (2003), Workforce Development, Training & Education Manager, OMIC. M.S. (2003) Portland State University.

Joshua Koch (2018), Business Development Manager, OMIC.

Fredrick Kowalski (2018), Director, IT Security and Compliance. M.S. (2003), Towson University; B.S. (1996), McGill University.

James Lake (1988), Assistant Director, Facilities Services. A.S. (1984), Sierra College.

Trent Lamont (2023), Associate MSR-Additive, OMIC.

Joy Lease (2023), Head Coach Women's Basketball, Athletics. M.A. (2022) Capella University; B.A. (1996) Linfield College.

Tracey Lehman (1999), Director, Financial Aid. M.M. (2005), Southern Oregon University; B.A. (1988), State University of New York; A.S. (1986), Mohawk Valley Community College.

Sara Mansfield (2022), Campus Operations Manager.

Kendal Marks (2012), Financial Aid & Registration Coordinator, Financial Aid. M.S. Ed., (2013) Arizona State University; B.S., (2007) Southern Oregon University.

Emily Martin (2023), Disability & Testing Services Assistant.

Chad Mattox (2022), Grounds Supervisor, Facilities Services.

Gaylyn Maurer (2013), Executive Director, Center for Health & Wellness. M.A. (1996), University of Denver; B.S. (1993), University of Houston.

Sam McCormick (2021), Coordinator, Academic Advising & Retention. B.S. (2016) Montana State University.

Beverly McCreary (2021), Associate Vice Provost for Labor Relations. Ph.D. University of Oregon; M.S. University of Oregon; B.S. University of Southern California.

Kyle McGann (2021), Machine Solutions Researcher, OMIC. M.S. (2021) Oregon State University; B.S. (2019) Oregon State University.

Sean McManamon (2022), Head Coach Men's Soccer, Athletics. B.S. Southern Oregon University.

Michelle Meyer (2014), Director, Audit & Compliance, Finance & Administration. B.S. (2004), Oregon State University; Certified Public Accountant, Oregon.

Mark Mitchell (2023), Facilities Manager, OMIC.

Thomas Moore (2023), Head Coach Women's Soccer, Athletics. M.S. (20109) Ohio University; B.S. (2022) Huntingdon College.

Joanna Mott (2019), Provost & Vice President for Academic Affairs. Ph.D., Texas A & M; M.S., University of Waterloo; B.S., University of Aston.

David Myers (2021), Head Golf Coach, Athletics. M.S. (1993) Oregon State University; M.S. (1988) Oregon State University; B.S. (1986) Oregon State university.

Nagi Naganathan (2017), President. Ph.D. (1986), Oklahoma State University; M.S. (1981), Clarkson University; B.E. (1978), National Institute of Technology.

Urmaze Naterwalla (2019), Research Operations Officer, OMIC. M.B.A. (2009), University of Oregon; M.S. (1996), Ohio State University; B.S. (1993), Indiana Institute of Technology.

Adam Neiwert (2023), Lab Manager, Manufacturing & Mechanical Engineering Technology.

Josephine Ness (2021), Director of Admissions. M.S. Western Governors University; B.A. Willamette University.

Valjean Newsome (1997), Executive Assistant, College of Engineering, Technology, and Management. A.S. (1998), Oregon Institute of Technology.

Bailey Nickle (2021), Academic Advisor, Academic Advising & Retention. M.A. (2021) Indiana State University; B.A. (2019) Indiana State University.

Mary Jane Owen (2023), Associate Director, Educational Partnerships & Outreach.

Justin Parnell (2012), Head Men's Basketball Coach, Athletics. B.S. (2011), Oregon Institute of Technology.

Adria Paschal (2007), Senior Executive Assistant to the President. A.A. (2016), Oregon Institute of Technology.

Brittany "Niko" Pearson (2024), Coordinator, Office of Global Engagement.

Ashlie Pence (2016), Associate Registrar, Registrar's Office. M.Ed. (2021) Western Oregon University; B.S. (2016), Oregon Institute of Technology.

Suzet Petersen (2002), Assistant Director, Financial Aid. B.S. (1998), Oregon Institute of Technology.

Elizabeth Peterson (2022), Coordinator, Academic Advising & Retention. B.S. (2021) Oregon Institute of Technology.

Lara Pracht (2016), Director Academic Affairs, Portland-Metro. Office of the Provost. Ph.D. (2017), University of Washington; B.S. (2010), University of Kansas.

Maria "Lupe" Preciado (2023), Admissions Counselor.

Tammie Retherford (2023), Director, Tech Opportunity Program/TRio.

Robert Reynolds (2021), Transfer Outreach Coordinator, Educational Partnerships & Outreach. M.S. (2020) Portland State University; B.A. (2009) California State University, Chico.

Anthony "Tony" Richey (2003),Associate Vice President & Chief Information Officer. Information Technology. M.S. (2010), Colorado Technical University; B.S. (2005), A.A. (1989),Oregon Institute of Technology.

Lesly Rodriguez (2022), MESA-STEM Partnership Coordinator, Education Partnerships & Outreach. B.A. (2021) Portland State University.

Joseph Rourke (2023), Educational Partnerships & Outreach.

Christopher Sacks (2023)Manager, Bookstore.

Mike Safford (2022), Director, Sports Information, Athletics. B.A. (1998) Pacific Lutheran University.

Kim "Taylor" Sanchez (2023), Career Advisor, Career Services.

Taylor Schaming (2020), Associate MSR, OMIC.

Victoria Seward (2022), Accounting Operations Manager, Business Affairs Office.

Zoe Smiley (2021), Assistant Director, First Year Experience & Student Engagement, Student Involvement and Belonging. M.A. (2020) Stephen F. Austin State University; B.S. (2018) B.S. Stephen F. Austin State University.

Carleen Starr (2013), Director, Educational Partnerships & Outreach. M.A.I.S. (2007), Oregon State University; B.S. (2005), Oregon State University.

Greg Stewart (2004), Head Coach Women's Softball, Athletics. B.S. (1992), Sterling College.

Don Stockton (2022), Director, Veteran's Services. M.A. (2023) George Mason University.

Elizabeth Stovall (2024), Director, Career Services.

Cynthia Stripling (2013), Department Coordinator, Admissions. B.A. (1996), Jacksonville State University.

Kelly Sullivan (2021), Coordinator, Academic Advising and Retention. B.A. (2014) Creighton University.

Karissa Sultan (2010), Accounts Receivable Manager, Business Affairs. B.S. (2005), University of Nevada-Reno.

Christopher Syrnyk (2012), Director, Honors Program, Office of the Provost.

Amanda Thompson (2023), Basic Needs Navigator, Student Affairs.

Paul Titus (2018), Executive Assistant, Office of the Provost. B.S. (2013), Oregon Institute of Technology.

Doug Tripp (2021), Executive Director Resilience, Emergency Management & Safety. M.S. University of Wisconsin; B.A. St. Ambrose University.

John VanDyke (2018), Director, Athletics. M S. (2007), United States Sports Academy; B.A (1992), Western Washington University.

Michelle Vitali (2017), Operations & Policy Advisor, OMIC. B.S. (1990), Florida Atlantic University.

Charlotte Waite (2022), TOP Advisor, Tech Opportunities Program.

Kristin Whitman, (2022) Director, Portland-Metro Library. M.Ed. (2020) Boise State University; MLIS (2011) Rutgers University; B.S. (2005) The College of William and Mary.

Erin Williams (2013), Athletic Programs Operations, Athletics. B.S. (2017) Eastern Oregon University.

Jennifer Wilson (2021), Executive Director, Diversity, Inclusion & Cultural Engagement & Title IX Coordinator.

Josh Winter (2022), Manager, College Union.

Rachel Winters (2014), Executive Assistant, Student Affairs.

Mira Wonderwheel (2018), Executive Director, Development. B.A. (1999), Sonoma State University.

Michael Yilek (2021), Assistant Director of Operations, Admissions. B.S. (2021) Oregon Institute of Technology.

Matthew Young (2023), Assistant Director, Housing & Residence Life.

Niki Young (2023), Counselor, Integrated Student Health Center.

ChihChien "Linus" Yu (2024), Associate Vice Provost, Academic Excellence. Ph.D. (2008) State University of New York at Buffalo; M.S. (1998) Tamkang University; B.S. (1996) Tamkang University.

Instructional Faculty

This listing reflects faculty for the 2024-25 academic year. In some cases, changes taking effect for 24-25 are included in the faculty lists under the department descriptions.

A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z

Mateo Aboy (2005), Professor, Electrical Engineering and Renewable Energy. B.S. (2002), B.S.E.E. (2002), M.S.E.C.E. (2004), Portland State University; Dipl. Ing. (2003), M.Phil. (2004), Ph.D. (2005), ETSIT-University of Vigo; Exec. Cert. (2007), Massachusetts Institute of Technology; M.B.A. (2011), L.L.B/QLD (2014), University of London. Registered Professional Engineer (PE), European Union (COIT No. 12684). Registered US Patent Agent (USPTO Bar Admission No. 64040). Certified Licensing Professional (CLP).

Abdelouahab Abrous (2014), Associate Professor, Manufacturing and Mechanical Engineering and Technology. B.S. (1981), University of Science & Technology, Algeria; M.S. (1984), University of Washington, Seattle; Ph.D. (1988), University of Washington, Seattle. Registered Professional Engineer, Washington, Idaho, Oregon, and California.

(2023) Professor, Computer Systems Engineering Technology. B.S. (1995), M.S. (1995), A. I. Cuza University of Iasi; Ph.D. (2000), Hamburg University.

Dawn Bailey (2017), Associate Professor, Humanities and Social Sciences, Clinical Director/Practicum Coordinator MS Applied Behavior Analysis Program. B.S. (1996), M.S. (2005), Ph.D. (2008), Florida State University.

Richard L. Bailey (1991), Professor, Management. B.S. (1984), M.A. (1985), Utah State University. Certified Public Accountant.

Rachelle Barrett (2018), Instructor, Medical Laboratory Science. Certificate (2013), University of Texas Medical Branch; B.S. (2005), Oregon State University; B.S. (2006), Oregon Institute of Technology.

Krista Beaty (2017), Assistant Professor, Dental Hygiene. A.A.S. (2004), Clark College; B.S. (2008), Eastern Washington University; M.S.(2019), Idaho State University.

Sharon Beaudry (2014), Instructor, Management. B.S. (1985), College of New Rochelle; J.D. (2009), Northwestern California University; M.B.A. (2013), Northcentral University. Senior Professional in Human Resources (SPHR).

Vanessa Bennett (2008), Associate Professor, Medical Imaging Technology. B.S. (2001), Oregon Institute of Technology; M.Ed. (2015), Western Governors University. Certified Nuclear Medicine Technologist (CNMT).

Nate Bickford (2022), Associate Professor, Natural Sciences.

Sonja Bickford (2023), Associate Professor, Management. B.S. Management (2000), Appalachian State University; M.B.A. (2001), Arkansas State University Jonesboro.

Jeannie Bopp (2016), Assistant Professor, Dental Hygiene. B.S. Dental Hygiene (2011), Oregon Institute of Technology; M.S. (2020) Oregon Institute of Technology**.**

Charisse Botsch (2015), Instructor, Dental Hygiene (Salem). B.S. (1985), Oregon Health Sciences University.

Jacklyn Brechter (2023), Associate Professor, Health Sciences. DPT (2018), Chapman University.

Todd W. Breedlove (1999), Professor, Computer Systems Engineering Technology. B.S. (1996), Oregon Institute of Technology; M.S. (1999), Southern Oregon University.

Kevin J. Brown (2001), Professor, Communication. A.A. (1986), Ricks College; B.A. (1988), Idaho State University; M.A. (1991), Washington State University; Ph.D. (2000), University of Utah.

Arief Budiman (2021), Assistant Professor, Manufacturing & Mechanical Engineering Technology. M.S. (2006); Ph.D. (2008), Stanford.

Ben S. Bunting, Jr. (2013), Professor, Humanities and Social Sciences. B.A. (2003), Kent State University; M.A. (2007); Ph.D. (2012), Washington State University.

Jess Burden (2023) Instructor, Communication.

Calvin K. Caldwell (1986), Professor, Computer Systems Engineering Technology. B.S. (1981), Oregon Institute of Technology; M.S. (1989), California State University, Chico.

Richard D. Carson (2006), Associate Professor, Medical Imaging Technology. B.S. (1997), Oregon Institute of Technology; M.Ed. (2012), Western Governors University. Registered Technologist (R) (CT) ARRT.

Kyle Chapman (2016), Associate Professor, Humanities and Social Sciences. B.A. (2008), Texas Tech University; M.A. (2011) Texas Tech University; Ph.D. (2014), University of Kansas.

Edward Clint (2022), Assistant Professor, Humanities and Social Sciences. B.S. (2012), University of Illinois – Urbana-Champaign.

Robyn L. Cole (2004), Associate Professor, Medical Imaging Technology. B.S. (2000), Oregon Institute of Technology; M.Ed. (2007), Western Governors University.

Cristina Crespo Veiga (2009), Professor, Electrical Engineering and Renewable Energy. B.S. (2002), M.S. (2004), Portland State University; M.Phil. (2009), Ph.D. (2010), Etsit-University of Vigo. Registered US patent agent (USPTO bar admission no. 68725).

Vicki Crooks (2020), Assistant Professor, Communication. B.S. (2001), Oregon Institute of Technology; M.S. (2006), Portland State University; Ph.D. (2014), Scripps College of Communication.

David Culler (2007), Professor, Manufacturing and Mechanical Engineering and Technology. A.A. (1985), University of New Mexico, Albuquerque; B.S. (1988), M.S. (1990), Ph.D. (1994), New Mexico State University, Las Cruces.

Carmen Curtz (2016), Instructor, Emergency Medical Services.

Don DaSaro (2008), Assistant Professor, Management. A.S. (1964), Metropolitan College; B.S. (1967), University of Missouri Science and Technology; M.B.A. (1991), Marymount University.

Kenneth Davis (2016), Associate Professor, Mathematics. B.A. (1981), Reed College; M.S. (1985), Portland State University; Ph.D. (1989), Washington State University.

Dibyajyoti Deb (2013), Professor, Mathematics. B.S. (2004), Chennai Mathematical Institute, India; M.S. (2006), University of Kentucky; Ph.D. (2010), University of Kentucky.

Irina Demeshko-Prosnik (2006), Associate Professor, Manufacturing and Mechanical Engineering and Technology. B.S. (1996), B.A. (2001), M.S. (1996), M.A. (2001), Far Eastern State Transport University.

Caroline Doty (2016), Associate Professor, Medical Laboratory Science. B.S. (2007), Clayton State University; M.S. (2012), Northwestern University; B.S. (2014), Oregon Institute of Technology and Oregon Health Sciences University. M.t. (ASCP) certified.

George Drouant (2018), Assistant Professor, Computer Systems Engineering Technology.

James Eastham (2014), Assistant Professor, Electrical Engineering and Renewable Energy. B.S. (2009), Oregon Institute of Technology; M.S. (2014), Portland State University.

Rachel Edwards (2022), Assistant Professor, Natural Sciences. B.S. (2012), Northwestern University; Ph.D. (2021), University of Minnesota, Twin Cities.

Holly Edwins (2022), Instructor, Emergency Medical Services.

Todd Ellingson (2008), Assistant Professor, Medical Director, Emergency Medical Services. B.S. (1998), Washington and Lee University; M.D. (2003), Oregon Health and Science University.

Tricia Elliott (2018), Assistant Professor, Natural Sciences. B.S. (1998), California State Polytechnic University, Pomona; M.S. (2002), California State Polytechnic University, Pomona.

Jared Emard (2016), Professor of Practice, Management. B.S. (2009), B.S. (2010), Oregon Institute of Technology; M.B.A. (2016), Southern Oregon University.

Kerry Farris (2017), Instructor, Natural Sciences. B.S. (1996), University of Idaho; M.S. (2000), University of Idaho.

James P. Fischer (1999), Professor, Mathematics. B.S. (1989), B.A. (1991), Humboldt State University; M.S. (1993), University of New Hampshire; Ph.D. (1998), Oregon State University.

Tiernan Fogarty (2002), Professor, Mathematics. B.S. (1995), M.S. (1997), Ph.D. (2001), University of Washington.

Andria "Andie" Fultz (2012), Assistant Professor, Communication. B.S. (1997), M.S. Communication Studies (2007), M.S. Post-Secondary, Adult, & Continuing Education (2007), Portland State University.

Kamal Gandhi (2017), Associate Professor, Natural Sciences. B.S. (2001), UC San Diego; Ph.D. (2006), UC Berkeley.

Yanqing Gao (2013), Professor, Manufacturing and Mechanical Engineering and Technology. B.S. (1982), Qingdao University of Science & Technology; M.S. (2000), Southern Illinois University, Edwardsville; M.S (2001), Ph.D. (2010), University of Arizona.

Kevin Garrett (2017), Associate Professor and Clinical Director, M.S. Marriage and Family Therapy Program, Humanities and Social Sciences. B.S. (2003), Utah State University; M.Ed. (2006), University of Oregon; MedFT

Certificate (2009), University of Nebraska Medical Center/University of Nebraska-Lincoln; Ph.D. (2014), Kansas State University.

Carrie Giacomelli (2022), Assistant Professor, Medical Imaging Technology. B.S. (2003), Oregon Institute of Technology; MBA, (2020), Western Governors University.

Iris K. Godwin (2007), Associate Professor, Head of Special Collection and University Archives, Library Services. B.A. (2000), Rhodes College; M.L.I.S. (2005), University of Tennessee, Knoxville.

Marybeth Grant-Beuttler (2022), Associate Professor, Health Sciences.

Ashton Greer (2019), Assistant Professor, Civil Engineering. B.S. (2014); M.S. (2015); Ph.D. (2019), The University of Alabama.

Eean Grimshaw (2023), Assistant Professor, Communication. B.S. (2012), M.S. (2016), The University of Montana.

David Grossnickle (2023), Assistant Professor, Natural Sciences.

Emily Gustafson-Plummer (2021), Instructor, Dental Hygiene. B.S. (2017), Oregon Institute of Technology.

Tara Guthrie (2011) Associate Professor, Medical Imaging Technology. B.S. (2003), B.S. (2004), Oregon Institute of Technology. Registered Vascular Technologist and Diagnostic Cardiac Sonographer (2005) ARDMS; M.S. (2016), University of Nebraska Kearney.

David K. Hammond (2013), Professor, Mathematics. B.S. (1999), California Institute of Technology; Ph.D. (2007), New York University.

Christopher Hamper (2012), Instructor, Emergency Medical Services. A.A.S. (2010), Oregon Health and Science University/Oregon Institute of Technology; B.S. (2017), Portland State University/Oregon Health and Science University.

Cecily Heiner (2019), Assistant Professor, Computer Systems Engineering Technology. B.S. (2003), Brigham Young University; M.S. (2005), Carnegie Mellon University; Ph.D. (2009), University of Utah.

Paula Hendrix (2019), Professor, Dental Hygiene. B.S. (1985) Oregon Health Sciences University; M.Ed. (2013), Concordia University.

Luis Hernandez (2022), Assistant Professor, Electrical Engineering and Renewable Energy. Ph.D. (2011), Polytechnic University of Madrid.

Philip Howard (2014), Associate Professor, Computer Systems Engineering Technology. B.S. (1982), B.A. (1982), Central Washington University; Graduate Certificate (1988), Multnomah School of the Bible; Ph.D. (2012), Portland State University.

Franny Howes (2014), Associate Professor, Communication. B.A. (2006), M.A. (2010), Michigan State University; Ph.D. (2014), Virginia Polytechnic Institute and State University.

Richard G. Hoylman (2002), Professor, Medical Imaging Technology. B.S. (1988), Oregon Institute of Technology; M.M. (2006), Southern Oregon University. Certified Nuclear Medicine Technologist (CNMT).

Wei-Cheng "Wayne" Hung (2023) Assistant Professor. B.S. (2014) National Tiwan University; M.S. (2017), Ph.D. (2020), University of California, Los Angeles.

Alishia Huntoon (2005), Professor, Humanities and Social Sciences. B.S. (1999), University of Wisconsin, Stevens Point; M.S. (2002), Ph.D. (2005), Washington State University.

Janette A. Isaacson (1994), Professor, Distance Education. A.S. (1984), Spokane Community College; B.S. (2005), Oregon Institute of Technology; M.Ed. (1998), University of Phoenix; M.Ed. (2002), Ed.D. (2002), Seattle University. RVT, RDCS, FSVU, LMHC.

Ganghee Jang (2023), Assistant Professor, Computer Systems Engineering Technology. B.S. (2003), Korea University; M.S. (2006), University of Florida; Ph.D. (2016) University of California, Irvine.

Hugh E. Jarrard (2013), Assistant Professor, Emergency Medical Services. A.A.S. (2009), Oregon Health and Science University/Oregon Institute of Technology; B.S. (1984), Haverford College; Ph.D. (1997), University of Oregon.

David Johnston (2018), Assistant Professor, Natural Sciences. B.S. (2006), Binghamton University; M.S. (2008), The College of William & Mary; Ph.D. (2017), The College of William & Mary.

Leah Jolly (2014), Assistant Professor, Medical Imaging Technology. B.S. (2003); M.S. (2018), Oregon Institute of Technology. Registered Vascular Technologist (RVT) and Registered Phlebology Sonographer (RPhS).

Fuat Karakaya (2023), Assistant Professor, Computer Systems Engineering Technology. M.S. (1998) Illinois Institute of Technology; Ph.D. The University of Tennessee, Knoxville.

Jherime L. Kellermann (2013), Professor, Natural Sciences. B.A. (1998), Penn State University; M.S. (2007), Humboldt State University; Ph.D. (2012), University of Arizona.

Jamie Kennel (2010), Associate Professor, Emergency Medical Services. A.A.S. (2009), Oregon Health and Science University/Oregon Institute of Technology; B.S. (1996), Ferris State University; M.S. (2011), Embry- Riddle Aeronautical University, Ph.D. (2022), Portland State University.

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Ian King (2023), Instructor, Management.

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Amber Lancaster (2018), Associate Professor, Communication.Ph.D. (2008), Texas Tech.

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Roger V. Lindgren (1999), Professor, Civil Engineering. Dip1H. (1985), Northern Alberta Institute of Technology; B.Sc. (1989), University of Alberta; Ph.D. (2005), Portland State University. Registered Professional Engineer: Alberta, Nevada.

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Douglas W. Lynn (1996), Professor, Computer Systems Engineering Technology. B.S. (1982), M.E. (1985), Ph.D. (1988), Brigham Young University.

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Rebeka Yocum (2022), Assistant Professor, Civil Engineering. Ph.D. (2022), Pennsylvania State University.

Faculty Senate Presidents

1965-1966 Eugene A. Wellman

1966-1967 Max A. Saunders

1967-1968 Arthur A. LeCours

1968 George E. Miller

1968-1969 Dalhart R. Eklund

1969-1970 Walter R. Richartz

1970-1971 William L. Bradford, Jr

1971-1972 Dale W. King

1972-1973 Larsen S. Svanevik

1973-1974 Sherman A. Anderson

1974-1975 Thomas J. Connors

1975-1976 James J. Boyle

1976-1977 Joseph T. Riker

1977-1978 Robert C. DeRosier

1978-1979 Richard H. Zbinden

1979-1980 Gary E. Wehr

1980-1981 Keith L. Spickler

1981-1982 Earl D. Kurtz

1982-1984 Charles V. Higbee

1984-1985 Edward Silling

1985-1987 Herbert H. Jolliff

1987-1988 Charles E. Harris

1988-1989 Ross S. Carroll

1989-1990 Pearl O. Juris

1990-1991 John V. Stec

1991-1993 James R. Etchison

1993-1995 Bradley D. Burda

1995-1997 Valerie J. Vance

1997-1999 David C. Warner

1999-2000 Alberto Bello, Jr.

2000-2002 Mark Clark

2002-2003 Timothy Thompson

2003-2006 Bradley D. Burda

2006-2008 Mark Neupert

2008-2009 Marla Miller

2009-2010 Debbie Caldwell

2010-2012 Matt Schnackenberg

2012-2014 Dan Peterson

2014-2016 Robyn Cole

2016-2018 David Thaemert

2018-2020 Terri Torres

2020-2022 Don McDonnell

2022-2024 Terri Torres

2024-2026 Yuehai Yang

Emeritus Faculty

A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z

Marshall Ager, B.S., Assistant Professor, Civil Engineering and Geomatics, 1977- 2004.

Randal Albert, M.S., Computer Systems Engineering Technology, 1984-2013.

Robert E. Baird, E.E., Professor, Electrical Engineering and Renewable Energy, 1958-1979.

Lynda M. Baker, M.F.A., Professor, Humanities and Social Sciences, 1989-2012.

James Ballard, Ed.D., Associate Professor, Mathematics, 2000-2016.

William Bradford, M.S., Professor, Medical Laboratory Technology, 1960-1986.

Judy Bronkey, M.A., Associate Professor, Director, Ethnic and International Student Services, 1969-1995.

Gene Bruner, M.S., Professor, Electrical Engineering and Renewable Energy, 1982-2004.

Barry Canaday, M.S., Associate Professor, Medical Imaging Technology, 2009-2021.

Ralph Carestia, M.S., Computer Systems Engineering Technology, 1990-2013.

Ross Carroll, Ph.D., Professor of Communication, 1984-2003.

Mark H. Clark, Ph.D., Professor, Humanities and Social Sciences, 1996-2022.

Thomas J. Connors, Ph.D., Professor and Vascular Technology Program Director, 1969-1999.

Harriet Cornachione, M.S., Professor, Civil Engineering, 1995-2010.

Michael Cornachione, M.S., Professor, Civil Engineering, 1992-2010.

Ben Cornelius, M.A., Mathematics, 1980-2013.

Jesse Crabtree, Assistant Professor, Civil Engineering Technology, 1947-1976.

G. Gene Culver, B.S., Associate Professor, Associate Director, Geo-Heat Center, 1960-1995.

Hugh Currin, Ph.D., Manufacturing and Mechanical Engineering Technology, 1984-2013.

Kate P. Darling, B.A., Instructor, Emergency Medical Services, 2003-2022.

W.M. Douglass, M.Ed., Professor and Dean of Administration, 1954-1983.

Elaine M. Deutschman, M.B.S., Professor, Mathematics, 1983-2004.

David Dyrud, Ph.D., Professor of Communication, 1975-2003.

Marilyn Dyrud, Ph.D., Professor of Communication, 1983-2017.

James R. Etchison, M.Ed., Professor and Chair, Electrical Engineering and Renewable Energy, 1986-2004.

Marian Ewell, B.S., Assistant Professor, Allied Health Partnerships, Clinical Laboratory Science, 2001-2012.

Jeanne Ford, R.N., Assistant Professor, Administrative Director, Student Health Service, 1964-1983.

Abraham Furman, Clinical Laboratory Science, 2001-2016.

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James R. Gerhardt, M.S., Professor, Medical Imaging Technology, 1967-1992.

Charles C. Glover, B.S., Associate Professor, Diesel Power Technology, 1966-1990.

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Yolanda Guran-Postlethwaite, M.S.E.E., Professor, Electrical Engineering and Renewable Energy, 1986-2004.

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Charles V. Higbee, M.B.A., Professor, Business, 1970-1987.

David M. Hull, M.S., Professor, Civil Engineering Technology, 1962-1987.

Margaret Huntley, Professor, Management, 1975-2006.

Herbert H. Jolliff, M.S., Professor and Department Chair, Mathematics, 1968-1999.

Charles Jones, Ph.D., Dean, College of Engineering, Technology, and Management. 1997-2015.

Lewis Jones, M.A., Professor, Computer Systems Engineering Technology, 1969-1986.

Pearl O. Juris, M.S., Professor, Nursing, 1977-1992.

Claude Kansaku, Professor, Engineering Technology and Management, 1998-2018.

Jenny Kellstrom, M.Ed., Professor, Medical Imaging Technology, 1992-2016.

Richard A. King, M.S.E.E., Professor, Computer Systems Engineering Technology, 1982-2002.

David G. Korzan, M.S., Professor, Natural Sciences, 1973-2003.

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Arthur LeCours, M.Ed., Professor, Physics, 1959-1982.

John W. Lund, Ph.D., Professor, Civil Engineering, and Director, Geo-Heat Center, 1967-1999.

Russell Madsen, M.Ed., Professor, Diesel Power Technology, 1958-1986.

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James C. McAtee, M.S., Professor, Dean, Computer Systems Engineering Technology, 1969-1996.

Marla Miller, M.S., Management, 1998-2013

Robert H. Mitchell, M.S., Professor, Natural Sciences, 1975-1998.

Richard M. Moore, Ph.D., Professor and Director, Portland-Metro Operations, 1972-1997.

W. Howard Morris, M.Ed., Professor, Physical Education, Director of Athletics, 1962-1992.

Julianne Murray, M.A., Associate Professor, Management, 1987-2011.

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Kenneth R. Ostrom, M.S., Professor, Mathematics-Physics, 1966-1995.

Lloyd Parratt, M.S., Associate Professor, Natural Sciences, 2010-2023.

Alf L. Peterson, M.S., Professor, Business Technologies, 1969-1990.

Ralph L. Pettit, M.S., Professor, Humanities and Social Sciences, 1969-1986.

Donald Phillips, M.S., Professor, Computer Systems Engineering Technology, 1972-1995.

Wayne Phillips, M.E., Professor, Manufacturing and Mechanical Engineering and Technology, 1979-1989.

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Richard Pope, M.Ed., Professor, Manufacturing and Mechanical Engineering and Technology, 1957-1984.

Lawrence W. Powers, M.A., Dean, College of Health, Arts, and Sciences, 1993-2013.

John R. Puckett, B.A. Associate Professor, Communication 1986-2012.

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Wayne Rawson, M.Ed., Professor, Civil Engineering Technology, 1955-1986.

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Robert Rogers, M.S., Professor, Manufacturing and Mechanical Engineering and Technology, 1992-2007.

Errol Roy, M.B.A., Professor, Management, 1992-2004.

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Joseph E. Sarsenski, Ph.D., Professor, Civil Engineering, 1998-2008.

Elvira Schechtel, M.S., Professor, Natural Sciences, 1990-2021.

Jill Schultz, Professor, Dental Hygiene, 1984-2018.

Andrew J. Sedlock, M.S., Professor, Electrical Engineering and Renewable Energy, 1988-2008.

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Edward Silling, Ph.D., Professor, Communication Department, 1975-2003.

Jay F. Silva, M.S., Professor, Manufacturing and Mechanical Engineering and Technology, 1962-1981.

Donald R. Skudstad, Ph.D., Professor, Manufacturing and Mechanical Engineering and Technology, 1976-1996.

Susan K. Snyder, M.S., Professor, Physical Education, 1964-1995.

Michael Spektor, M.S., Professor, Manufacturing and Mechanical Engineering, 1985-2010.

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James V. Stewart, M.Ed., Professor, Mathematics, 1984-2002.

Charles R. (Dick) Strohkirch, M.S., Professor, Medical Imaging Technology, 1972-1998.

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Emeritus Administration

A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z

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