The College of Engineering offers degrees in engineering, computer science, construction engineering management, energy systems engineering, and radiation health physics. Students may choose engineering majors from biological, chemical, civil, ecological, electrical and computer, environmental, industrial, manufacturing, mechanical, and nuclear engineering. Educational preparation for land surveying, a licensed profession in all states, is offered through civil engineering. Forest engineering is offered by the College of Forestry.

The Engineering Profession
Engineering is the profession in which knowledge of the mathematical and natural sciences gained through education and practice is applied with judgment to develop ways to economically utilize the materials and forces of nature for the benefit of humankind. It is a licensed profession in all of the states of the USA, and educational programs must meet high professional standards. Engineers are not only responsible for planning, designing, manufacturing, construction, and management, but also for the safety and welfare of the public that relies on their work.

Mission and Goals
The college's undergraduate educational mission is to provide high quality engineering programs that prepare students for successful careers, lifelong learning, and service to their profession and society. OSU engineering graduates will be known for their technical competence and creativity; for their ability to apply, adapt, and extend their knowledge to solve a wide variety of problems; and for their effective communication skills. Their education will provide them with an understanding of the ways in which the humanities, social sciences, basic sciences, and technology interact to affect society. These programs will foster an environment that stimulates learning and promotes diversity.

The college's undergraduate programs have four goals:

1. Educate students thoroughly in mathematics, basic science and engineering sciences relevant to their discipline's professional work, including fundamental concepts, experimental techniques, methods of analysis, and computational applications.
2. Develop the ability of students to communicate effectively and to work collaboratively in diverse team environments.
3. Develop in students an awareness of the historical evolution of knowledge and technical applications, the state of current professional practice, their need for lifelong learning, contemporary issues, and the impact of engineering actions and solutions in a societal and global context; and to develop an understanding of their professional and ethical responsibilities.
4. Develop the ability of students to formulate and solve problems, to integrate and synthesize knowledge, and to think creatively, leading to the capability to analyze and design components, processes, or systems; plan and carry out experiments effectively; and troubleshoot and modify processes and systems.

Preparing for an Engineering Career
To prepare for the practice of engineering, students complete an accredited program of study leading to a bachelor of science degree in an established engineering field. Most engineering curricula require 180 credits; exceptions include programs in chemical, ecological, environmental and bioengineering. All programs include a balance of course work in mathematics, science, liberal arts, engineering science, and engineering design.

Upon graduation, engineering students are eligible to take the Fundamentals of Engineering Examination of the State Board of
Engineering Examiners in any state. After passing the examination and completing four years of progressively responsible engineering work, graduates are eligible to take the professional engineering license examination of the state in which they intend to practice.

Although some fields of industrial and government employment do not require formal professional licensure, the educational preparation for the bachelor's degree is a necessity for virtually all such employment.

Preparation for the professional practice of land surveying follows a pattern of education, experience, examination, and professional licensure similar to that required for professional engineering practice.

Students completing the BS in Radiation Health Physics degree will be eligible to take part I of the Certified Health Physics (CHP) Examination of the American Board of Health Physics after one year of applied health physics practice. After six years of responsible professional experience in health physics, graduates will be eligible to take part II of the CHP examination.

General Engineering

The first year of the general engineering curriculum meets the requirements of all engineering curricula except bioengineering, chemical engineering, environmental engineering, and ecological engineering, which require a different chemistry sequence. Students who have not decided upon a major prior to enrolling are encouraged to register for General Engineering.

Curriculum

The General Engineering curriculum below will prepare students to enter many of the engineering programs. Students may transfer into any program at any time during the first year; they must transfer by the end of the year.

General Engineering (One-year Program, Major Code: 827)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CH 201</td>
<td>CHEMISTRY FOR ENGINEERING MAJORS &amp; CH 202</td>
<td>6</td>
</tr>
<tr>
<td>or COMM 111</td>
<td>*PUBLIC SPEAKING</td>
<td>3</td>
</tr>
<tr>
<td>COMM 114</td>
<td>*ARGUMENT AND CRITICAL DISCOURSE</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 111</td>
<td>ENGINEERING ORIENTATION I</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 112</td>
<td>INTRODUCTION TO ENGINEERING COMPUTING</td>
<td>3</td>
</tr>
<tr>
<td>HHS 231</td>
<td>*LIFETIME FITNESS FOR HEALTH</td>
<td>2</td>
</tr>
<tr>
<td>HHS 241</td>
<td>*LIFETIME FITNESS (or any PAC course)</td>
<td>1-2</td>
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<tr>
<td>MTH 251</td>
<td>*DIFFERENTIAL CALCULUS</td>
<td>4</td>
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<td>MTH 252</td>
<td>INTEGRAL CALCULUS</td>
<td>4</td>
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<tr>
<td>MTH 254</td>
<td>VECTOR CALCULUS I</td>
<td>4</td>
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<tr>
<td>PH 211</td>
<td>*GENERAL PHYSICS WITH CALCULUS</td>
<td>4</td>
</tr>
<tr>
<td>WR 121</td>
<td>*ENGLISH COMPOSITION</td>
<td>3</td>
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<tr>
<td>Biological science elective</td>
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<td></td>
</tr>
<tr>
<td>Perspectives</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

Baccalaureate Core Course

* Must be selected to satisfy the requirements of the baccalaureate core

College of Engineering Grading and GPA Requirements

All technical, writing and communications courses must be taken for letter grades (A through F): C or better grades are passing.

Satisfactory Academic Progress for Engineering Students

A student in good academic standing satisfies university, college, and program academic requirements. The university may change a student’s status to warning, probation, or suspension following guidelines contained in the Schedule of Classes. The College of Engineering has a similar, but independent, process.

At the conclusion of each term, term and cumulative GPA are calculated and academic standings are determined for students according to the criteria outlined below. Students whose standings evidence a lack of satisfactory progress will be warned of this condition and advised to seek help from their academic advisors. Students who fail to improve may be removed from the college.

1. Academic Warning: Students with a term GPA below 2.25 and fewer than 10 credits of pro-core course work will be placed on academic warning. The student must meet with their academic program advisor before they will be allowed to register for subsequent terms.

2. Academic Probation: Students who have completed 10 or more credits of pro-core course work and have a cumulative pro-core GPA below 2.25 will be placed on academic probation. A registration hold (‘Dean’s hold’) will be placed on the student’s account until the student meets with an academic program advisor. The student and academic program advisor will complete an academic success agreement.

3. Academic Suspension: Students who are on academic probation and fail to meet the terms of their academic success agreement will be placed on academic suspension. Students who are academically suspended are removed from the professional program and are not allowed to take additional upper-division College of Engineering courses.

4. Reinstatement to the College: Suspended students may be reinstated to the professional program after one year, or completion of a minimum of 24 quarter credits of acceptable transferable college-level work at an accredited college or university, with a GPA of 2.5 or above. These 24 credits must be pre-approved in writing by the program head advisor. Students reinstated to the professional program who are subsequently suspended may only apply for reinstatement under the ‘one year’ option.

Reinstatement requests from students will be considered by the College Committee on Reinstatement (CCR) made up of three College of Engineering school advisors and college head advisor (or their designee). Reinstatement guidelines are available electronically in the College of Engineering Undergraduate Policy Manual (https://engineering.oregonstate.edu/undergraduate-policy-manual/).

Graduation Requirements

To graduate with a baccalaureate degree in any of the engineering or computer science majors, a student must complete 180 credits; exceptions include programs in chemical, environmental, ecological, and bioengineering, which require 192 credits. In addition, students must have a minimum 2.5 institutional GPA and minimum 2.5 GPA in all required and elective classes in the chosen major. A student must also meet all university degree requirements published each year in the
Academic Regulations (http://catalog.oregonstate.edu/regulations/) and Procedures (http://catalog.oregonstate.edu/earning-degrees/) section of the Academic Catalog.

**Academic Dishonesty Policy**

Students that violate the academic honesty policy a second time will be suspended from the College of Engineering for a period of one year.