Mount Hood Community College

Ecological Engineering

The Ecological Engineering (EcoE) program at OSU was the first-of-its-kind in the nation, and the discipline is rapidly developing as an important emerging area of engineering. Ecological Engineering blends engineering and scientific principles/problem-solving techniques to optimize the design of sustainable systems (natural, urban, and agricultural) that integrate human activities into the natural environment to the benefit of both.

EcoE graduates are highly employable and have found work in a variety of employment sectors, including:
- Engineering design & consulting firms
- Government agencies (federal, state, local)
- Natural resource management/restoration firms
- Sustainable farms & vineyards
- Surveying & ecological modeling firms
- Water and wastewater treatment facilities

Bachelor of Science Degree (BS) in the College of Engineering

- A minimum of 192 credits are required for graduation; 60 must be upper division (300 and 400-level courses).
- A maximum of 124 credits earned at a community college may be applied toward a bachelor’s degree at OSU.
- Some courses can count towards your major and the Baccalaureate Core. Advisors can assist in selection.
- OSU Catalog has a list of courses required for your major and option: catalog.oregonstate.edu

Courses for this Major offered at Mount Hood Community College

<table>
<thead>
<tr>
<th>Requirement</th>
<th>MHCC Course</th>
<th>OSU Course</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Ecological Engineering Orientation I &amp; II</td>
<td>ENGR 101, ENGR 102, ENGR 103</td>
<td>BEE 101, BEE 102</td>
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<tr>
<td>Principles of Biology series*</td>
<td>BI 211, BI 212, BI 213</td>
<td>BI 211, BI 212, BI 213</td>
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<tr>
<td>General Chemistry + Lab series</td>
<td>CH 221, CH 222, CH 223</td>
<td>CH 231/261, CH 232/262, CH 233/263</td>
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<tr>
<td>Statics</td>
<td>ENGR 211</td>
<td>ENGR 211</td>
<td></td>
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<tr>
<td>Strength of Materials</td>
<td>ENGR 213</td>
<td>ENGR 213</td>
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<tr>
<td>Differential, Integral, &amp; Vector Calculus</td>
<td>MTH 251, MTH 252, MTH 254</td>
<td>MTH 251, MTH 252, MTH 254</td>
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<tr>
<td>Applied Differential Equations</td>
<td>MTH 256</td>
<td>MTH 256</td>
<td></td>
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<tr>
<td>Intro to Matrix Algebra + Intro to Series</td>
<td>MTH 253 + MTH 261</td>
<td>MTH 264 + MTH 265</td>
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<tr>
<td>Calculus-Based Physics series</td>
<td>PH 211, PH 212, PH 213</td>
<td>PH 211, PH 212, PH 213</td>
<td></td>
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<tr>
<td>Intro to Matrix Algebra + Intro to Series</td>
<td>MTH 253</td>
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*These courses transfer into OSU as BI LD2. They are similar to OSU’s BI 211-213 but do not match closely enough to be directly articulated. Students should complete the entire series before transferring or wait to take the series at OSU.

Revised as of October 2019
Important Notes & Resources

Important Notes for the College and Major:

• For more information on the Ecological Engineering program and degree requirements, please visit https://bee.oregonstate.edu/biological-and-ecological-engineering/advisors
• Grade requirements: major coursework requires a C or better, some Baccalaureate Core classes will be considered passing with a D- or better
• See a sample degree plan by searching Ecological Engineering at admissions.oregonstate.edu/find-your-major
• Other similar majors to explore: Environmental Engineering and Environmental Science
• The best time to transfer is fall term. Talk with an OSU advisor about your specific timeline.

Resources and OSU Information:

• Preparing to apply to OSU? See admissions info: oregonstate.edu/admissions/transfer.html
• Want to take classes at OSU and an Oregon community college? Check out the Degree Partnership Program: partnerships.oregonstate.edu/students
• Schedule a visit to OSU for a tour and to meet with an advisor, visitosu.oregonstate.edu/visit-campus

General Education Courses (called Baccalaureate Courses)

• Complete one course in each Perspectives category with no more than two in the same department.
• For full listing of courses that fulfill Baccalaureate Core, please refer to https://admissions.oregonstate.edu/baccalaureate-core-course-equivalencies-mount-hood-community-college

| SKILL COURSES | Math
| Writing I
| Writing II
| Speech (Writing III)
| Fitness
| Completed as part of major.
| WR 121. Required to transfer.
| WR 227
| COMM 111 or COMM 112
| HE 295

| PERSPECTIVE COURSES | Biological Science
| Physical Science
| Additional Biological or Physical Science
| Cultural Diversity
| Literature and the Arts
| Social Processes and Institutions
| Western Culture
| Completed as part of major.
| Completed as part of major.
| Many options, see BaccCore link above.
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| Many options, see BaccCore link above.
| Many options, see BaccCore link above.

| DPD COURSES | Difference, Power, and Discrimination
| Many options, see BaccCore link above.

| SYNTHESIS COURSES | Contemporary Global Issues
| Science, Technology, and Society
| Upper division course, take through OSU.
| Upper division course, take through OSU.

Advising Contacts

Academic advisors at your community college and OSU are available to answer your questions and assist you in creating a transfer plan. See your community college advisor first and use this Transfer Guide to help you plan. Also, consider visiting OSU to take a campus tour and meet with an advisor. See visitosu.oregonstate.edu/visit-campus to schedule your personalized visit.

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<thead>
<tr>
<th>Mount Hood Community College Advisor</th>
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<tbody>
<tr>
<td>OSU Ecological Engineering Advisor</td>
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<td>OSU College of Engineering Main Office</td>
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