**Industrial Engineering**

Industrial engineers design, implement, and manage complex organizational systems and processes. IEs develop knowledge and skills in a wide variety of disciplines. These transferrable skills are crucial in today’s complex world. The Industrial Engineering degree is one of the most flexible degrees offered by the College of Engineering.

Examples of what IE engineers can do:
- Manage how efficiently materials and people move around facilities
- Manage how to store, transport, & carry all types of materials, or how to set the best routes to deliver packages via parcel services
- Design manufacturing, production, & service systems such as vehicle assembly plants or hospitals

**Your Bachelor’s Degree (BS) in the College of Engineering**

- A minimum of 180 credits are required for graduation; 60 must be upper division (300 and 400-level courses).
- A maximum of 135 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.
- More info at mime.oregonstate.edu/industrial-engineering-undergraduate-program

**Courses Required for Industrial Engineering Major**

This list is comprehensive. Speak with OSU advisor for more information

<table>
<thead>
<tr>
<th>Industrial Engineering Core Requirements</th>
<th>Columbia Gorge Equivalent Course</th>
<th>OSU Course</th>
<th>Notes</th>
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<tr>
<td>Spreadsheet Skills for Ind. Engr.</td>
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<td>IE 112</td>
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<td>Comp, Methods for Industrial Engr.</td>
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<td>Intro to Engineering Computing</td>
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<td>Electrical Foundations I</td>
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<td>ENGR 201</td>
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<td>Statics</td>
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<td>ENGR 211</td>
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<td>Dynamics</td>
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<td>ENGR 212</td>
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<td>Strength of Materials</td>
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<td>ENGR 213</td>
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<tr>
<td>Engr. Graphics &amp; 3-D Modeling</td>
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<td>ENGR 248</td>
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<td>Intro to MIME</td>
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<td>MIME 101</td>
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<td>Intro to Manufacturing Processes</td>
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<td>ME 250</td>
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<td>Differential Calculus</td>
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<td>Integral Calculus</td>
<td>MTH 252</td>
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<td>Vector Calculus I</td>
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<td>MTH 254</td>
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<td>Applied Differential Equations</td>
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<td>MTH 256</td>
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<td>Linear Algebra I</td>
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<td>MTH 341</td>
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<td>Intro to Statistics for Engineers</td>
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<td>ST 314 (LD)</td>
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<td>General Physics (Calculus)</td>
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<td>PH 213</td>
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<td>Chemistry for Engineers</td>
<td>CH 221</td>
<td>CH 201</td>
<td>Transfers in as CH 231+CH 261</td>
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<tr>
<td>Chemistry for Engineers</td>
<td>CH 222</td>
<td>CH 202</td>
<td>Transfers in as CH 232+CH 262</td>
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<td>Public Speaking Argument &amp; Critical Discourse</td>
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<td>COMM 114</td>
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<tr>
<td>Technical Writing</td>
<td>WR 227</td>
<td>WR 327 (LD)</td>
<td>(LD) = Lower Division Transfer</td>
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## Important Notes & Resources

**Important Notes for the College of Engineering and Industrial Engineering Major:**

- Grade requirements: Grade of C or better in all major coursework.
- See a sample degree plan by searching “Industrial Engineering” at [admissions.oregonstate.edu/find-your-major](admissions.oregonstate.edu/find-your-major)
- Other similar majors to explore: Manufacturing Engineering
- A dual major in Manufacturing Engineering (Systems option) is also possible
- IE students: You can transfer ANY term. Talk with an OSU IE advisor TWO TERMS before you intend to transfer to discuss your specific timeline.
- IE majors can participate in two six-month paid internships with MECOP: [mecopinc.org](http://mecopinc.org)

**Resources and OSU Information:**

- Students do not have to complete a transfer degree in order to transfer to OSU.
  - If you’ve completed the Oregon AAOT, all requirements of the Baccalaureate Core are complete except for Synthesis Courses and Writing Intensive Courses.
- Preparing to apply to OSU? See admissions info: [transfer.oregonstate.edu](transfer.oregonstate.edu)
- Want to take classes at both OSU and an Oregon community college? Check out the Degree Partnership Program: [partnerships.oregonstate.edu/students](partnerships.oregonstate.edu/students)
- Schedule your OSU campus tour and meet with an advisor at [visitosu.oregonstate.edu/visit-campus](visitosu.oregonstate.edu/visit-campus)

## General Education Courses (called the Baccalaureate Core)

- Complete one course in each Perspective category with no more than two in the same department.

Full listing of Columbia Gorge courses that fulfill Bacc Core requirements: [admissions.oregonstate.edu/baccalaureate-core-course-equivalencies-columbia-gorge-community-college](admissions.oregonstate.edu/baccalaureate-core-course-equivalencies-columbia-gorge-community-college)

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<thead>
<tr>
<th>SKILLS COURSES</th>
<th>PERSPECTIVE COURSES</th>
<th>SYNTHESIS COURSES</th>
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<tbody>
<tr>
<td>Math</td>
<td>Biological Science</td>
<td>Contemporary Global Issues</td>
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<tr>
<td>Writing I</td>
<td>Physical Science</td>
<td>Science, Technology, &amp; Society</td>
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<tr>
<td>Writing II</td>
<td>Additional Biological or Physical Science</td>
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<tr>
<td>Speech (Writing III)</td>
<td>Cultural Diversity</td>
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<tr>
<td>Fitness</td>
<td>Literature and the Arts</td>
<td>Upper division course, take through OSU</td>
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<td></td>
<td>Social Processes and Institutions</td>
<td>Upper division course, take through OSU</td>
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<td>Western Culture</td>
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## 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.** It is important to discuss your specific timeline. **See [visitosu.oregonstate.edu/visit-campus](visitosu.oregonstate.edu/visit-campus)** to schedule your personalized visit.

<table>
<thead>
<tr>
<th>Columbia Gorge Community College</th>
<th>OSU Industrial Engineering</th>
<th>OSU College of Engineering Main Office</th>
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</thead>
<tbody>
<tr>
<td>cgcc.edu/advising</td>
<td>MIME Advisor, <a href="mailto:MIME.advising@oregonstate.edu">MIME.advising@oregonstate.edu</a></td>
<td><a href="mailto:askengineering@oregonstate.edu">askengineering@oregonstate.edu</a></td>
</tr>
</tbody>
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Revised as of October 2020