**Bioengineering**

**What is Bioengineering?**
Bioengineering is an interdisciplinary field that applies scientific and engineering principles to the development of new biologics, materials, devices, and processes in the broad areas of bioprocess, biomedical, and bioenvironmental technology. You will study heat and fluid flow and how they are coupled with biological reactions or phenomena.

**Careers in Bioengineering**
With a Bioengineering degree you can work in pharmaceutical industry, medical device and diagnostics, food and beverage, commodities, petrochemical or paper products, etc. Common employment industries include cosmetics, prosthetics, fermentation, cellular and tissue engineering.

**Your Bachelor’s Degree (BS) in the College of Engineering**
- A minimum of 192 credits are required for graduation; 60 credits 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: [catalog.oregonstate.edu](http://catalog.oregonstate.edu)

**Courses for this Major** offered at Treasure Valley Community College

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<tr>
<th>Requirement</th>
<th>TVCC Course</th>
<th>OSU Course</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Microbiology</td>
<td>BIOL 234</td>
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<td>General Chemistry</td>
<td>CHEM 221, 222, 223</td>
<td>CH 231/261, 232/262, 233/263</td>
<td>Labs are under a separate course number at OSU</td>
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<td>Organic Chemistry</td>
<td>CHEM 227, 228, 229</td>
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<td>Differential and Integral</td>
<td>MATH 251, 252</td>
<td>MTH 251, 252</td>
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<td>Introduction to Series</td>
<td>MATH 253</td>
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<tr>
<td>Calculus-Based Physics Series</td>
<td>PHYS 211, 212, 213</td>
<td>PH 211, 212, 213</td>
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*Major classes that also count for Baccalaureate Core are listed on the back page.*
Important Notes & Resources

Important Notes for the College and Major:
• Grade of C or better are required in all major specific courses.
• See a sample 4 year degree plan at https://cbee.oregonstate.edu/transfer-students
• Other similar majors to explore: Environmental and Chemical Engineering
• For Bioengineering students, the best time to transfer is summer term, particularly due to the CBEE series courses. Talk with an OSU advisor about your specific timeline.
• CBEE 280 should be taken, after pre-requisites are met, the summer before starting upper division CBEE major coursework.

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: oregonstate.edu/admissions/transfer.html
• Want to take classes at both OSU and an Oregon community college? Check out the Degree Partnership Program: partnerships.oregonstate.edu/students
• Visit OSU for a campus tour and meet with an advisor; schedule your visit at 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 admissions.oregonstate.edu/baccalaureate-core-course-equivalencies-treasure-valley-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  
| SP 111  
| HPE 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.  
| Completed as part of major.  
| Many options, see BaccCore link above.  
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| Many options, see BaccCore link above.  

| DPD COURSES | Difference, Power, and Discrimination  
| Completed as part of major.  
| 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.** It is important to speak with your advisor early on and often to ensure correct course selection and sequencing. See visitosu.oregonstate.edu/visit-campus to schedule your personalized visit.

| Treasure Valley Community College Advisor  
| OSU Biological Engineering Advisor | CBEE Advisors: cbee.advising@oregonstate.edu  
| OSU College of Engineering Main Office | askengineering@oregonstate.edu |