

**Major Offered At:**

**CORVALLIS**

**Umpqua  
Community College**

## Architectural Engineering

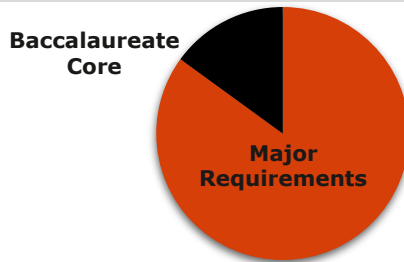
Architectural engineers design buildings that support human needs enhance the quality of life, and embrace sustainability. They are technical experts and creative problem solvers who apply engineering principles and advanced technologies to support an architect's creative vision.

What can you do with this major?

- Improve the lives of people by engineering buildings that are visually, acoustically, and thermally comfortable

- Design buildings that make use of sustainable design practices and materials
- Design structural, electrical, heating and air conditioning, plumbing, fire protection, lighting, and acoustical systems
- Collaborate with architects, other engineers, and contractors
- Optimize a building's energy conservation and functional efficiency
- Become a licensed professional engineer

## 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 [cce.oregonstate.edu/architectural-engineering](http://cce.oregonstate.edu/architectural-engineering)

## Courses Required for Architectural Engineering Major

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

Architectural Engineering Core Requirements	UCC Equivalent Course	OSU Course	Notes
Civil & Constr. Engr: Orientation	ENGR 111	CCE 101	
CCE: Problem-Solving & Tech.	ENGR 112	CCE 102	
CCE: Graphics & Design	ENGR 245	CCE 201/ENGR 248	
Virtual Design & Construction	CIV 114	CCE 203	
CCE: Seminar	N/A	CCE 207	
Plane Surveying	CIV 115/115T	CEM 263	
Differential Calculus	MTH 251	MTH 251	Available online at OSU
Integral Calculus	MTH 252	MTH 252	Available online at OSU
Vector Calculus	MTH 254	MTH 254	Available online at OSU
Applied Differential Equations	MTH 256	MTH 256	Available online at OSU
Intro to Matrix Algebra	MTH 261	MTH 264	Available online at OSU, equivalent if taken with MTH 253
Intro to Series	MTH 253	MTH 265	Available online at OSU
Intro to Statistics for Engineers	MTH 265	ST 314 (LD)	LD = Lower Division Transfer , Available online at OSU
Chemistry for Engineering Majors	CH 221	CH 201	Available online at OSU
General Physics (Calculus)	PH 211	PH 211	
General Physics (Calculus)	PH 212	PH 212	
Electrical Fundamentals I	ENGR 201	ENGR 201	Available online at OSU
Statics	ENGR 211	ENGR 211	Available online at OSU
Dynamics	ENGR 212	ENGR 212	Available online at OSU
Strength of Materials	ENGR 213	ENGR 213	Available online at OSU
English Composition	WR 121	WR 121	Available online at OSU
Technical Writing	WR 227	WR 327 (LD)	LD = Lower Division Transfer, Available online at OSU
Public Speaking	SP 111 SP 112	COMM 111	Available online at OSU
Intro to Microeconomics	ECON 201	ECON 201	Available online at OSU
Ethics	PHL 202	PHL 205	Available online at OSU
History of Western Architecture	N/A	ART 210	

## Important Notes & Resources

### Important Notes for the College of Engineering and Architectural Engineering Major:

- Grade requirements: Grade of C or better in all major coursework; 2.5 Cumulative GPA, 65% of courses passed. See <https://beav.es/oKz> for more information.
- See a sample degree plan by searching "Architectural Engineering" at [admissions.oregonstate.edu/find-your-major](https://admissions.oregonstate.edu/find-your-major)
- Other similar majors to explore: [Civil Engineering](#), [Construction Engineering Management](#)
- To maximize course access and availability, we encourage students to begin coursework at OSU through [Degree Partnership Program](#) in Winter or Spring of 2<sup>nd</sup> year, with plans to fully begin upper division coursework at OSU in Fall of 3<sup>rd</sup> year. We encourage you to talk with an OSU advisor about your specific timeline.
- It is important to speak with CCE advisors early on, and often, to ensure correct course selection and sequencing. Schedule an appointment with an OSU CCE advisor [here!](#)

### 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](https://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](https://partnerships.oregonstate.edu/students)
- Schedule your OSU campus tour at [visitosu.oregonstate.edu/visit-campus](https://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 UCC courses that fulfill Bacc Core requirements: [admissions.oregonstate.edu/baccalaureate-core-course-equivalencies-umpqua-community-college](https://admissions.oregonstate.edu/baccalaureate-core-course-equivalencies-umpqua-community-college)

<b>SKILLS COURSES</b>	Math Writing I Writing II Speech (Writing III) Fitness	Completed as part of the major WR 121. Required to transfer. Completed as part of the major Completed as part of the major HPE 295
<b>PERSPECTIVE COURSES</b>	Biological Science Physical Science Additional Biological or Physical Science Cultural Diversity Literature and the Arts Social Processes and Institutions Western Culture	Choose one course from BaccCore link above Completed as part of major Completed as part of major Choose one course from BaccCore link above Completed as part of major Completed as part of major Completed as part of major
<b>DPD COURSE</b>	Difference, Power, & Discrimination	Choose one course from BaccCore link above
<b>SYNTHESIS COURSES</b>	Contemporary Global Issues Science, Technology, & 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 OSU academic advisor early on, and often, to ensure correct course selection and sequencing. See [visitosu.oregonstate.edu/visit-campus](https://visitosu.oregonstate.edu/visit-campus) to schedule your personalized visit.

<b>Umpqua Community College</b>	<a href="https://umpqua.edu/areas-of-study/transfer-education">umpqua.edu/areas-of-study/transfer-education</a>
<b>OSU Architectural Engineering</b>	<a href="mailto:CCE.Advising@oregonstate.edu">CCE.Advising@oregonstate.edu</a>
<b>OSU College of Engineering Main Office</b>	<a href="mailto:askengineering@oregonstate.edu">askengineering@oregonstate.edu</a>