



Clatsop Community College Transfer Guide Bachelor of Science in Energy Systems Engineering

Important Note:

Students are encouraged to dually enroll at OSU-Cascades spring term of their second year, to avoid a year delay in the ESE program. ST 314, is only offered spring term and once a year. ST 314 is an important pre-requisite for upper division courses offered fall term of third year. Failure to take ST 314 could result in a year delay in the ESE program.

Transfer Admissions:

osucascades.edu/admissions/admissions-advising

Program Requirements

OSU Graduation Requirement:

Students are required to meet the University Graduation requirements as well as complete course work required for their major to graduate with a Bachelor of Science in Energy Systems Engineering. **All catalog and course selection information is subject to change pending catalog declaration year.* catalog.oregonstate.edu/regulations/#text

- 180 minimum = total number of credits required to graduate
- 60 minimum = number of upper division credits required
- 45 of last 75 credits must be OSU credits
- Max 135 credits transferred to OSU
- Max 18 W grades (withdraw)
- Max 11 credits PAC

College of Engineering Academic Standing

Progression Model

- Grades of C or better and a minimum of 2.50 cumulative OSU GPA
- Maintain 2.50 term and/or cumulative OSU GPA and 65% of courses completed
 - Warning: OSU term GPA is below a 2.50 and/or completion is under 65%
 - Probation: After 24 OSU credits attempted, if both term and cumulative standards are not met
 - Suspension: If on probation and have a subsequent term OSU GPA under 2.50 and/or pace under 65%
- No major courses may be taken with S/U grading.

Academic Progression Model Information: <https://engineering.oregonstate.edu/current-students/advising/progression>

Important Notes:

- **It is the student's responsibility to double check that all requirements are met.** The advisor can suggest courses and assist the student in constructing a plan of study, but the student in the end is responsible for assuring all requirements for graduation are met.
- Degree requirements are subject to change and dependent on catalog year of admission and major declaration.
- MECOP Internship information: www.mecopinc.org/

Students will work with their Academic Advisor and use the Bacc Core approved list for OSU-Cascades to choose courses for the Bacc Core requirements. To find information about Bacc Core or for the approved list, visit: <https://admissions.oregonstate.edu/course-articulations>

Baccalaureate Core:

| x | Skills Requirements | Non-AAOT course | AAOT or ASOT |
|---|---|------------------------|----------------|
| | Health/Fitness | HPE 295 | AAOT completes |
| | Mathematics | MTH 251 in major | AAOT completes |
| | Writing I [^] | WR 121Z in major | AAOT completes |
| | Writing II | WR 227Z in major | AAOT completes |
| | Speech [^] | COMM 111Z/112 in major | AAOT completes |
| x | Perspective Requirements: no more than 2 from 1 department | | |
| | Cultural Diversity | See Bacc Core guide | AAOT completes |
| | Literature & the Arts | See Bacc Core guide | AAOT completes |
| | Social Processes & Institutions | EC 201 in major | AAOT completes |
| | Western Culture | See Bacc Core guide | AAOT completes |
| | Physical Science | PH 211-213 in major | AAOT completes |
| | Biological Science | See Bacc Core guide | AAOT completes |
| | Additional Science (Physical or Biological) | CH 221-222 in major | AAOT completes |
| | Difference, Power & Discrimination | See Bacc Core guide | AAOT completes |
| x | Synthesis Requirements: cannot be from the same department | | |
| | Contemporary Global Issues – Met by SUS 350 (in ESE Major) | OSU Only | OSU Only |
| | Science, Technology & Society | OSU Only | OSU Only |

A student who has completed (or plans on completing) an ASOT-Business or an AAOT has completed all Skills & Perspectives requirements in the Bacc Core. Students still need to complete synthesis courses.

Major Requirements

First & Second year courses: All courses must be completed with a C grade or better

| x | Major Requirement (OSU) | Clatsop CC Approved Transfer Courses: |
|---|---|--|
| | CH 201: Chemistry for Engineering Majors | CH 221: General Chemistry |
| | CH 202/205: Chem. For Engineering Major + Lab | CH 222: General Chemistry |
| | COMM 111Z or COMM 114: Public Speaking or Argument & Critical Discourse | COMM 111Z or 112: Public Speaking or Persuasive Speech |
| | ENGR 100: The OSU Engineering Student | EGR 101: Engineering Orientation |
| | ENGR 102: Design Engineering & Problem Solving | OSU only |
| | ENGR 103: Engineering Computation & Algorithmic Thinking | |
| | ENGR 201: Electrical Fundamentals I | OSU only |
| | ENGR 202: Electrical fundamentals II | OSU only |
| | ENGR 211: Statics | OSU only |
| | ENGR 212: Dynamics | OSU only |
| | IE 212: Computational Methods for IE | OSU only |
| | MTH 251: Differential Calculus | MTH 251: Calculus I |
| | MTH 252: Integral Calculus | MTH 252: Calculus II |
| | MTH 254: Vector Calculus I | OSU only |
| | MTH 256: Applied Differential Equations | OSU only |
| | MTH 341: Linear Algebra I | OSU only |
| | PH 211: General Physics with Calculus | PH 211: General Physics w/ Calc. |
| | PH 212: General Physics with Calculus | PH 213: General Physics w/ Calc. |
| | PH 213: General Physics with Calculus | PH 212: General Physics w/ Calc. |
| | ST 314: Intro. to Statistics for Engineers | OSU Only |
| | WR 121Z: Composition I | WR 121Z: Composition I |
| | WR 227Z: Technical Writing | WR 227Z: Technical Writing |

Third & Fourth year courses: All courses must be completed with a C grade or better

| x | Major Requirement (OSU) | Clatsop CC Approved Transfer Courses: |
|---|---|---------------------------------------|
| | ESE 330: Modeling & Analysis of Dynamic Systems | OSU Only |
| | ESE 355: Energy Regulation | OSU Only |
| | ESE 360: Energy Consumption Analysis | OSU Only |
| | ESE 430: Feedback Control Systems | OSU Only |
| | ESE 450: Energy Generation Systems | OSU Only |
| | ESE 470: Energy Distribution Systems | OSU Only |
| | ESE 471: Energy Storage Systems | OSU Only |
| | ENGR 415: Engineering Capstone Design I | OSU Only |
| | ENGR 416: Engineering Capstone Design II | OSU Only |
| | IE 415: Simulation and Decision Support Systems | OSU Only |
| | IE 425: Industrial Systems Optimization | OSU Only |
| | IE 471: Project Management in Engineering | OSU Only |
| | ME 311: Introduction to Thermal-Fluid Sciences | OSU Only |
| | ME 312: Thermodynamics | OSU Only |
| | ME 331: Introductory to Fluid Mechanics | OSU Only |
| | ME 332: Heat Transfer | OSU Only |
| | Choose one (Lower Division Tech Elective): ME 444 or ESE 499 | OSU Only |

Business & Sustainability Courses: All courses must be completed with a C grade or better

| x | Major Requirement (OSU) | Clatsop CC Approved Transfer Courses: |
|---|------------------------------------|---------------------------------------|
| | BA 357: Operations Management | OSU Only |
| | ECON 201: Intro. to Microeconomics | EC 201: Principles of Microeconomics |
| | ENGR 390: Engineering Economy | OSU Only |
| | SUS 350: Sustainable Communities | OSU Only |

NOTES

* All info is subject to change at catalog policy

See Academic Advisor for Restricted Elective information

All PH courses need to be taken at the same institution