

Ocean Engineering (OE) Curriculum Unofficial Roadmap*

First Year Fall Semester

- CHEM 1035: General Chemistry 3 cr
- CHEM 1045: General Chemistry Laboratory 1 cr
- ENGE 1215: Foundations of Engineering 2 cr
- ENGL 1105: First-Year Writing 3 cr
- MATH 1225: Calculus of a Single Variable 4 cr
- Pathways 2 3 cr

16 credits

First Year Spring Semester

- ENGE 1216: Foundations of Engineering 2 cr
- ENGL 1106: First-Year Writing 3 cr
- MATH 1226: Calculus of a Single Variable 4 cr
- PHYS 2305: Foundations of Physics 4 cr
- CS 1064: Intro to Programming in Python 3 cr

16 credits

Second Year Fall Semester

- AOE 2014: Statics and Mechanics of Materials 3 cr
- AOE 2204: Intro to OE 3 cr
- MATH 2114: Linear Algebra 3 cr
- MATH 2204: Multivariable Calculus 3 cr
- PHYS 2306: Foundations of Physics 4 cr

16 credits

Second Year Spring Semester

- AOE 2024: Thin-Walled Structures 3 cr
- AOE 2054: Electronics for AOE 3 cr
- AOE 2074: Data and Algorithms for AOE 3 cr
- ESM 2304: Dynamics 3 cr
- MATH 2214: Differential Equations 3 cr

15 credits

Third Year Fall Semester

- AOE 3014: Fluid Dynamics for AOE 3 cr
- AOE 3034: System Dynamics and Control 3 cr
- AOE 3214: Ocean Wave Mechanics 3 cr
- ECON 2005: Principles of Economics 3 cr
- Track Technical Elective 3 cr

15 credits

Third Year Spring Semester

- AOE 3224: Ocean Structures 3 cr
- AOE 3234: Ocean Vehicle Dynamics 3 cr
- AOE 3264: Thermodynamics and Marine Propulsion 3 cr
- AOE 3054: Experimental Methods 3 cr
- Math Elective** 3 cr
- Technical Elective 3 cr

18 credits

Fourth Year Fall Semester

- AOE 4205: Experiments for Ocean Vehicle Design 1 cr
- AOE 4265: Ocean Vehicle Design 3 cr
- STAT 4705: Probability and Statistics for Engineers 3 cr
- Track Technical Elective 3 cr
- Technical Elective 3 cr
- Pathways 6a 3 cr

16 credits

Fourth Year Spring Semester

- AOE 4206: Experiments for Ocean Vehicle Design 1 cr
- AOE 4266: Ocean Vehicle Design 3 cr
- Track Technical Elective 3 cr
- Technical Elective 3 cr
- Pathways 2 3 cr
- Pathways 3 3 cr
- ENGE 3900: Bridge Experience 0 cr

16 credits

*Based on the 2026-2027 Catalog Year OE Curriculum

**Math Elective options include AOE/MATH 4404, MATH 4564, MATH 4574, STAT 4705