

OCEAN ENGINEERING - Catalog Year 2026

Total Credits = 120-130

Freshman Year, Fall Semester

Course Code	Description	Cr	Grade
EGR 101	Intro. to Eng. Design & Innov. (A4)	2	
MTH 141 +	Calculus I (A1, B3)	4	
CHM 101	General Chemistry Lec I (A1)	3	
CHM 102	General Chem I Lab	1	
PHY 203	Elementary Physics I (A1)	3	
PHY 273	Elementary Physics Lab I (A1)	1	
	General Education Outcome(s) ¹	3	

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Freshman Year, Spring Semester

Course Code	Description	Cr	Grade
EGR 106	Matlab for Engineering Applications (A4)	2	
OCE 101	Intro to Ocean Engineering	1	
MTH 142 +	Calculus II (A1, B3)	4	
PHY 204	Elementary Physics II (A1)	3	
PHY 274	Elementary Physics Lab II (A1)	1	
ECN 201	Principles of Microeconomics (A2)	3	
	General Education Outcome(s) ¹	3	

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Sophomore Year, Fall Semester

Course Code	Description	Cr	Grade
MCE 262	Statics	3	
MTH 243 +	Calculus for Functions of Several Vars (A1, B3)	3	
OCE 205	Ocean Engineering Design Tools	4	
PHY 205	Elementary Physics III Lec (A1, B3)	3	
PHY 275	Elementary Physics III Lab (A1, B3)	1	

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Sophomore Year, Spring Semester

Course Code	Description	Cr	Grade
CVE 220	Mechanics of Materials	3	
MCE 263	Dynamics	3	
MTH 244	Differential Equations	3	
OCE 206	Ocean Measurements & Instrumentation	3	
OCE 213	Computer Programming in OCE	3	

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Junior Year, Fall Semester

Course Code	Description	Cr	Grade
ISE 311	Probability & Statistics for Engineers	3	
MCE 354	Fluid Mechanics	3	
OCE 301	Fundamentals of Ocean Mechanics	4	
OCE 315	Hydrodynamics Lab for Ocean Engineers	1	
	Technical Elective ²	3	
	General Education Outcome(s) ¹	3	

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Junior Year, Spring Semester

Course Code	Description	Cr	Grade
OCE 311	Coastal Measurements and Applications	4	
OCE 394	Design Applications in OCE	3	
OCE 408	Egr Wave Mechanics and Littoral Proc	4	
OCE 471	Underwater Acoustics	4	
	General Education Outcome(s) ¹	3	

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Senior Year, Fall Semester

Course Code	Description	Cr	Grade
CHE 333	Engineering Materials	3	
OCE 416	OCE Professional Practice	2	
OCE 495	Ocean Systems Design Project I [capstone] ⁴	3	
	Professional Elective ³	3	
	Professional Elective ³	3	
	General Education Outcome(s) ¹	3	

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Senior Year, Spring Semester

Course Code	Description	Cr	Grade
OCE 496	Ocean Systems Design Project II [capstone] ⁴ (B2, D1)	3	
OCG 451	Oceanographic Science	3	
	Professional Elective ³	3	
	Professional Elective ³	3	
	General Education Outcome(s) ¹	3	

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Notes:

+ Course pre-requisites include grade requirements in previous coursework, see catalog or eCampus course description for details.

1) General Education Outcomes (A1-D1): if all outcomes are satisfied in fewer spaces than provided, you must take a course(s) of your choice (Free Elective) to ensure you have earned at least 120 credits as required to earn a BS degree. A complete detailing of these requirements are listed in the college's curriculum requirements section of this catalog.

2) Technical Elective Requirement: choose one (1) from CVE 354, EGR 313, MCE 341, or OCE 360. A minimum of two (2) courses from the technical and professional electives must be OCE.

3) Professional Elective Requirements: Any 300-, 400-, or 500-level courses in engineering, MTH, OCG, or PHY. A minimum of two (2) courses from the technical and professional electives must be OCE.

4) OCE 495 and OCE 496: An approved off-campus experience, usually between the junior and senior years, can be substituted for OCE 495 and 496.

EGR101 is intended for and required of all first-year engineering students. Course substitution is considered only on an exception basis for transfer students with 24 or more earned credits, or for students with unique circumstances, and requires prior approval of the Assistant Dean for Undergraduate Affairs.