

# OCEAN ENGINEERING - Class of 2019

Total Credits = **126**

## Freshman Year *Fall Semester*

Course Code	Description	Cr
CHM 101	General Chemistry I Lec [GE-N]	3
CHM 102	General Chem I Lab	1
EGR 105	Foundations of Engineering I	1
MTH 141	Intro Calculus w/Analytic Geom [GE-MQ]	4
PHY 203	Elementary Physics I Lect [GE-N]	3
PHY 273	Elementary Physics I Lab [GE-N]	1
	General Education Elective*	3

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## Freshman Year *Spring Semester*

Course Code	Description	Cr
ECN 201	Principles of Microeconomics [GE-S]	3
EGR 106	Foundations of Engineering II	2
MTH 142	Intermed Calc with Analytic Geom [GE-MQ]	4
OCE 101	Intro to Ocean Engineering	1
PHY 204	Elementary Physics II Lec [GE-N]	3
PHY 274	Elementary Physics II Lab [GE-N]	1
	General Education Elective*	3

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## Sophomore Year *Fall Semester*

Course Code	Description	Cr
MCE 262	Statics	3
MTH 243	Calculus for Functions of Several Vars	3
OCE 205	Ocean Engineering Design Tools	4
PHY 205	Elementary Physics III Lec [GE-N]	3
PHY 275	Elementary Physics III Lab [GE-N]	1

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## Sophomore Year *Spring Semester*

Course Code	Description	Cr
CVE 220	Mechanics of Materials	3
MCE 263	Dynamics	3
MTH 244	Differential Equations	3
OCE 206	Ocean Instrumentation	4
	Free Elective	3

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## Junior Year *Fall Semester*

Course Code	Description	Cr
MCE 354	Fluid Mechanics	3
OCE 301	Fundamentals of Ocean Mechanics	4
OCE 310	Basic Ocean Measurement	3
	Professional Elective**	3
	General Education Elective*	3

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## Junior Year *Spring Semester*

Course Code	Description	Cr
OCE 311	Coastal Measurements and Applications	4
OCE 408	Intro to Engineering Wave Mechanics and Littoral Processes	4
OCE 471	Underwater Acoustics	4
	Professional Elective**	3
	General Education Elective*	3

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## Senior Year *Fall Semester*

Course Code	Description	Cr
CHE 333	Engineering Materials	3
OCE 416	OCE Professional Practice	2
OCE 421	Marine Structure Design	3
OCE 495	Ocean Systems Design Project I***	3
	Professional Elective**	3

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## Senior Year *Spring Semester*

Course Code	Description	Cr
OCE 496	Ocean Systems Design Project II***	3
OCG 451	Oceanographic Science	3
	Professional Elective**	3
	Professional Elective**	3
	General Education Elective*	3

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\* **Note:** Refer to *specific* Ocean Engineering General Education *course requirements* (see 2018 OCE Check Sheet).

\*\* **Professional Electives:** Any 300-, 400-, or 500-level courses in engineering, MTH, PHY, or OCG.

*A minimum of two (2) professional electives must be in OCE.*

\*\*\* **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.

SPECIFIED MATHEMATICS, SCIENCE, AND ENGINEERING COURSES											
INTRODUCTORY ENGINEERING						ENGINEERING SCIENCE AND DESIGN					
Sem	Course	Cr	Grade	QP	Note	Sem	Course	Cr	Grade	QP	Note
	EGR 105	1					CHE 333	3			
	EGR 106	2					CVE 220	3			
		3					MCE 262	3			
MATHEMATICS							MCE 263	3			
	MTH 141 [GE-MQ]	4					MCE 354	3			
	MTH 142 [GE-MQ]	4					OCE 101	1			
	MTH 243	3					OCE 205	4			
	MTH 244	3					OCE 206	4			
		14					OCE 301	4			
NATURAL SCIENCES							OCE 310	3			
	CHM 101 [GE-N]	3					OCE 311	4			
	CHM 102	1					OCE 408	4			
	PHY 203 [GE-N]	3					OCE 416	2			
	PHY 273 [GE-N]	1					OCE 421	3			
	PHY 204 [GE-N]	3					OCE 471	4			
	PHY 274 [GE-N]	1					OCE 495* [capstone]	3			
	PHY 205 [GE-N]	3					OCE 496* [capstone]	3			
	PHY 275 [GE-N]	1						54			
						**PROFESSIONAL ELECTIVES					
								3			
								3			
								3			
								3			
								3			
		16						3			
OCEANOGRAPHY								15			
	OCG 451	3									
GENERAL EDUCATION [GE] COURSES											
BREADTH At least one course in <i>each</i> of the Gen Ed Areas						DEPTH At least one additional course in <i>3 different</i> Gen Ed Areas Remainder are taken in <i>any</i> Gen Ed Area/Area					
Sem	Course	Cr	Grade	QP	Note	Sem	Course	Cr	Grade	QP	Note
***English Communication-Writing [GE-ECw]						Natural Sciences [GE-N]					
	WRT	3				✓	<i>Satisfied by Required Courses</i>	12	---	---	---
Mathematical and Quantitative Reasoning [GE-MQ]						Mathematical and Quantitative Reasoning [GE-MQ]					
✓	<i>Satisfied by</i> MTH 141	4	---	---	---	✓	<i>Satisfied by</i> MTH 142	4	---	---	---
Fine Arts & Literature [GE-A]						***One additional course from: EC/ECw; A; FC; L; S					
		3					[GE-ECw; A; FC; L; S]	3			
Foreign Language/Culture [GE-FC]						Free Elective					
		3						3			
Letters [GE-L]						Other Courses ( <i>not for degree credit</i> )					
		3									
Natural Sciences [GE-N]											
✓	<i>Satisfied by</i> CHM 101	3	---	---	---						
Social Sciences [GE-S]											
	ECN 201	3									

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\* 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.

\*\* Professional Electives: Any 300-, 400-, or 500-level courses in engineering, MTH, PHY, or OCG.

*A minimum of two (2) professional electives must be in OCE.*\*\*\* Note the following *specific* requirements and restrictions for General Education [GE] electives:-[GE-ECw] Requirement: *Must* take at least *one (1)* General Education course in *writing* [GE-ECw].-[GE-ECw] Restriction: Can only take *one (1)* of the following **100-level** writing courses for General Education credit [GE-ECw]: WRT 104, WRT 105, WRT 106.