

## BS Coastal & Marine Science (Fall 2018 & Later)

### Minimum 120 credits required for Bachelor's degree Foundational Core (30-32 Credits)

		Grade
FYXX 125 <sup>1</sup>	First Year Seminar	
CTL 125	Critical Thinking	
MA 140	Precalculus	
Choose 1 course from each area *		
<sup>2</sup> Science		
Literature		
History		
Arts/Design/Comm		
Philosophy		
Theology/Relig		
Social Science		

### Human Journey Seminars: Great Books in CIT (6 Credits)

CIT 201	Human Journey CIT I	
CIT 202	Human Journey CIT II	

### Liberal Arts Explorations (LAE) (9 Credits)

Humanistic Inquiry (3 Credits)*	
Social and Global Awareness (3 Credits)	
Scientific Literacy (3 Credits)	

\* See list of courses. Courses must be in correct "Explorations" category

<sup>1</sup>(Requires Grade C or higher)

<sup>2</sup>Science/Natural Science courses includes

approved Math and Computer Science courses. Students are required to take at least one course in Biology, Chemistry, or Physics in the Foundational or Liberal Arts Explorations Core. CS and MA courses may be used as a Science/Natural Science in either the Foundational Core or as an Exploraion requirement in the LAE Core but not in both categories.

Note: MA 006 and ESL courses **will not** count towards the 120 credit graduation requirement.

Approved Study Abroad courses may be used to satisfy requirements for the foundational core or a Liberal Arts Explorations Core.

### Required Curriculum for Degree in Major 42 credits required

Biology Core		Grade
BI 111	Concepts in Biology I	
BI 112	Concepts in Biology II	
BI 113	Concepts in Biology I Laboratory	
BI 114	Concepts in Biology II Laboratory	
BI 201	Genetics & Evolution: Org. to Pop.	
BI 202	Ecology: Pop. to Eco.	
BI 203	Genetics & Evolution: Org. to Pop. Laboratory	
BI 204	Ecology: Pop. to Eco. Laboratory	
BI 399	Senior Seminar	

### Coastal & Marine Science Core

BI 274	Coastal Management	
BI 278	Coastal Ecology	
BI 303	GIS for Environmental Applications	
BI 390 or BI 360	Supervised Research (3 credits) or Internship (3 credits)	

Three additional Biology courses comprising at least two in the Environmental area, and one in the Organismal area. One of the 3 courses must be at the 300 level. Two of the 3 courses must include labs (including one at the 300 level).

200/300+Lab		
200/300		
300+Lab		

### Required Supporting Courses (32 credits)

		Grade
CH 151	General Chemistry I	
CH 152	General Chemistry II	
CH 153	General Chemistry Laboratory I	
CH 154	General Chemistry Laboratory II	
CH 221/223	Organic Chemistry I with Lab	
MA ____	Statistics (131/132/133)	
MA ____	PreCalculus, Calculus	
PY ____	Physics 100 level with Lab	
HI 251	History of Fishing and Coastal Development	
SO 258	Society and the Environment	
EC 203	Principles of Macroeconomics	

Free Electives (to total 120 credits)		Grade

<b>SACRED HEART UNIVERSITY</b> <b>COLLEGE OF ARTS &amp; SCIENCES</b> <b>BS Coastal &amp; Marine Science (Fall 2018 &amp; Later)</b>
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The Coastal & Marine Science concentration in the Biology major combines a rigorous grounding in the foundational principles of biological science at all scales of organization from molecules to ecosystems with significant coursework in coastal science, marine science, ecology, conservation biology, environmental restoration, and related areas of the biological sciences. The curriculum offers students the opportunity for "real world" experiences through fieldwork in courses, independent research projects, and internships with outside partner organizations. Majors are well prepared for numerous job opportunities in coastal/marine/ecological research and environmental management. In addition, students in this track are very well prepared to continue their education in numerous graduate programs.

Students majoring in the Coastal & Marine Science concentration are required to complete 42 credits in Biology: 18 credits in the Biology core, 24 credits in the Coastal & Marine Science core electives. Twenty-three credits are required in the supporting areas of Chemistry, Mathematics, and Physics

**SUGGESTED FOUR YEAR SEQUENCE OF STUDY:**

YEAR 1	SEMESTER I (18 cr)	YEAR 1	SEMESTER 2 (14cr)
FYXX 125 or	First Year Seminar	FYXX 125 or	First Year Seminar or
CTL 125	Critical Thinking	CTL 125	Critical Thinking
BI 111/BI 113	Concepts in BiologyI with Laboratory	BI112/BI114	Concepts in Biology II with Laboratory
CH 151/153	General Chemistry I with Laboratory	CH 152/154	General Chemistry II with Laboratory
MA140/151	PreCalculus, Calculus	MA ____	Statistics (131/132/133)
_____	Elective (Foundational Core)		
YEAR 2	SEMESTER 3 (17 cr)	YEAR 2	SEMESTER 4 (16 cr)
BI202/204	Ecology: Pop. to Eco. with Laboratory	BI201/203	Genetics & Evolution: Org. to Pop. with Laboratory
CH 221/223	Organic Chemistry I with Lab	CIT 202	Human Journey CIT II
CIT 201	Human Journey CIT I	_____	Elective (Foundational Core)
_____	Elective (Foundational Core)	_____	Elective (Foundational Core)
_____	Elective (Foundational Core)	_____	Elective (Foundational Core)
YEAR 3	SEMESTER 5 (14 cr)	YEAR 3	SEMESTER 6 (14 cr)
BI3XX	GIS for Environmental Applications	BI 278	Coastal Ecology
BI ____	Environmental Biology elective	BI274	Coastal Management
_____	LAE Elective	_____	LAE Elective
_____	LAE Elective	BI390	Supervised Research
_____		BI 398	Senior Seminar Prep
YEAR 4	SEMESTER 7 (16 cr)	YEAR 4	SEMESTER 8 (14 cr)
BI ____	Environmental Biology elective	BI ____	Organismal Biology elective
BI 390	Supervised Research	BI 399	Senior Seminar
PY 1XX	Physics With Lab	_____	Elective (Free)
_____	Elective (Free)	_____	Elective (Free)
_____	Elective (Free)	_____	Elective (Free)

**Note: Foundational Core should be completed by the end of the Junior Year**

**Note: LAE Core should be completed by the end of the 1st semester of the Senior Year**

**Note: Students must average 15 or more credits/semester to graduate on an 8 semester schedule.**