

## BS Coastal & Marine Science Major (Fall 2024 & Later)

**Minimum 120 credits required for Bachelor's degree**

### Foundational Core (27-29 Credits)

Grade

FYWS-125 <sup>1</sup>	First Year Seminar	
MA _____	Foundational Core Math course	
Choose 1 course from each area *		
<sup>2</sup> Natural/Physical Science		
Literature		
History	HI-100,102,110, or 115	
Arts/Design/Comm.		
Philosophy		
Theology/Relig		
Social/Behavioral Science		

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

CIT 201	CIT Seminar I	
CIT 202	CIT Seminar II	

### Liberal Arts Explorations (LAE) (12 Credits Total)

**Student must complete 4 courses from at least 2 different subjects and one course in each area. (see list on Registrar's Website - checksheets)**

Humanistic Inquiry (3 credits)		
Social and Global Awareness (3 credits)		
Scientific Literacy (3 credits)		
LAE in any area (3 credits)		

\* See list of courses.

<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 Exploration Core. CS and MA courses may be used as a Science/Natural Science in either the Foundational Core **or** as a 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 Exploration

A maximum of 8 Applied Music credits may be applied towards graduation

### Required Curriculum for Degree in Major

### Coastal & Marine Science major (42 credits)

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	
BI 202	Ecology & Evolution	
BI 203	Genetics & Evolution Laboratory	
BI 204	Ecology & Evolution Laboratory	
BI 399	Senior Seminar	

### Coastal & Marine Science Core

BI 274	Coastal Management	
BI 278 or	Coastal Ecology	
BI 260	Marine Biology	
BI 303	GIS for Environmental Science	
BI 390 or	Supervised Research (3 credits) or	
BI 360	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 w/lab		
200/300		
300 w/lab		

### Required Supporting courses

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 131	Statistics	
MA 140 or 151	PreCalculus or Calculus	
PY	Physics 100 level with Lab	
HI 251	Coastal Communities	
SO 254 or	Society & Economic Change	
SO 258	Society & the Environment	
EC 203	Principles of Macroeconomics	

### General Electives (number of credits vary)

Grade


### Checksheet Key

T	Course transferred & requirement satisfied
W	Requirement waived
TW	Course transferred & requirement waived

<b>SACRED HEART UNIVERSITY</b> <b>COLLEGE OF ARTS &amp; SCIENCES</b> <b>BS Coastal &amp; Marine Science (Fall 2024 &amp; Later)</b>
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The Coastal and Marine Science 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 requires students to participate in "real world" experiences through fieldwork in courses, independent research projects, and/or internships with outside partner organizations. Students also have the opportunity to study abroad in Ireland during spring of their junior year.

The Coastal & Marine Science major provides the intellectual and technical skills necessary for a wide range of productive careers in a rapidly changing world. Majors are well prepared for numerous job opportunities in coastal/marine/ecological research and environmental management. Likewise, students are very well prepared to pursue graduate studies in a wide range of fields.

Students majoring in Coastal & Marine Science are required to complete 42 credits in Biology: 18 credits in the Biology core and 24 credits in the Coastal & Marine Science core. 32 credits are also required in the supporting areas of Chemistry, Mathematics, Physics, History, Sociology, and Economics.

***SUGGESTED FOUR YEAR SEQUENCE OF STUDY:***

<b>YEAR 1</b>	<b>SEMESTER 1</b>	<b>YEAR 1</b>	<b>SEMESTER 2</b>
XX	First Year Writing Seminar or Elective (Foundational Core)	FYWS 125 or XX	First Year Writing Seminar or Elective (Foundational Core)
BI 111/BI 113	Concepts in Biology I 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 or 151	PreCalculus or Calculus Elective (Foundational Core)	MA 131	Statistics Elective (Foundational Core)

<b>YEAR 2</b>	<b>SEMESTER 3</b>	<b>YEAR 2</b>	<b>SEMESTER 4</b>
BI202/204	Ecology & Evolution with Laboratory	BI201/203	Genetics & Evolution 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)	SO 254 or SO 258	Sociology required course (LAE) Elective (Foundational Core) Elective (Foundational Core)

<b>YEAR 3</b>	<b>SEMESTER 5</b>	<b>YEAR 3</b>	<b>SEMESTER 6</b>
BI ____	Environmental Biology elective	BI 303	GIS for Environmental Applications
BI ____	Organismal Biology elective	BI ____	Environmental Biology elective
HI 251	History required course (LAE)	BI 278/279	Coastal Ecology
EC 203	Economics required course (LAE) Elective (Free)		Elective (Free) Elective (Free)

<b>YEAR 4</b>	<b>SEMESTER 7</b>	<b>YEAR 4</b>	<b>SEMESTER 8</b>
BI 390 or BI 360	Research or Internship	BI 274	Coastal Management
PY 1XX	Physics With Lab Elective (Free) Elective (Free) Elective (Free)	BI 399	Senior Seminar Elective (Free) Elective (Free) Elective (Free)

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