**MARINE SCIENCES - BS**

**Program Requirements**

### First Year

**Fall**
- CHEM 119: Fundamentals of Chemistry I 4
- ENGL 104: Composition and Rhetoric 3
- MARS 102: Earth and Ocean Science 4
- MATH 147: Calculus I for Biological Sciences or MATH 151: Engineering Mathematics I 4

#### Semester Credit Hours
15

### Second Year

**Fall**
- BIOL 111: Introductory Biology I 4
- CHEM 120: Fundamentals of Chemistry II 4
- MARB 101: Succeeding in Science 3
- Select one of the following:
  - MATH 148: Calculus II for Biological Sciences 4
  - MATH 150: Functions, Trigonometry and Linear Systems 4
  - MATH 152: Engineering Mathematics II 4

#### Semester Credit Hours
15

**Spring**
- BIOL 112: Introductory Biology II or GEOL 106: Historical Geology 4
- MARS 210: Marine Geography 3
- MARS 281: Sophomore Seminar in Marine Sciences 3
- Select one of the following:
  - PHYS 201: College Seminar 4
  - PHYS 206: Newtonian Mechanics for Engineering and Science 4
  - PHYS 226: Physics of Motion Laboratory for the Sciences 4

#### Professional elective 3

#### Semester Credit Hours
15

### Third Year

**Fall**
- MARS 325: Introduction to GIS for Marine Sciences 3
- MARS 410: Physical Oceanography 3
- MARS 420: Biological Oceanography 3
- POLS 206: American National Government 3
- Professional elective 1,3 3

#### Semester Credit Hours
15

**Spring**
- MARS 430: Marine Geology 3
- MARS 440: Chemical Oceanography or MARS 340: Global Biogeochemical Cycles 3
- American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) 3
- Creative arts (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts) 3
- Professional elective 1,3 3

#### Semester Credit Hours
16

### Fourth Year

**Fall**
- MARS 460: Capstone Undergraduate Research Experience I 2
- MARS 481: Seminar 3
- MARS 491: Research in Marine Sciences 2
- Language, philosophy and culture (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture) 3
- Professional elective 1,3 3
- General elective 4 3
- General elective 4 3

#### Semester Credit Hours
16

**Spring**
- MARS 461: Capstone Undergraduate Research Experience II 2
- MARS 491: Research in Marine Sciences 2
- American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) 3
- Professional elective 1,3 3
- General elective 4 3

#### Semester Credit Hours
12

**Total Semester Credit Hours**
120

1. Course counts towards major GPR.
2. Writing intensive course.
3. Professional Electives include: ATMO 363; CHEM 227, CHEM 237, CHEM 238, CHEM 316, CHEM 318; FSCI 360, GEOG 331; MATH 470; MARB 300-499; MARS 303, MARS 305, MARS 306, MARS 330, MARS 340, MARS 370/GEOG 370, MARS 408, MARS 410, MARS 412, MARS 415, MARS 425, MARS 426, MARS 432, MARS 435, MARS 440, MARS 470, MARS 484, MARS 489, MARS 491; MATH 251, MATH 308, POLS 347; STAT 303, OCEN 201, OCEN 213, OCEN 265, OCEN 300, OCEN 311.
Select any 100-499 course not used elsewhere.

The Graduation requirements include a requirement for 3 hours of International and Cultural Diversity courses and 3 hours of Cultural Discourse courses. A course satisfying a Core category, a college/department requirement, or a free or directed elective can be used to satisfy this requirement.