

# BS, Marine Science Major Check Sheet

Online version : <http://www.uhh.hawaii.edu/academics/degrees/>

Name \_\_\_\_\_ I.D. \_\_\_\_\_

## Curriculum requirements for graduation:

General Education Basic Requirements: 18 hours.			
Course	Hours	Grade	Term
<u>GF. Composition</u> ENG/ ESL 100, 100T, ENG 100H	3		
<u>GL. Language Arts</u> Select one course from list _____	3		
<u>GQ. Quantitative Reasoning</u> Select two courses from list. <i>Requirement fulfilled in Marine Science Major (Math 205,206).</i>	6		
<u>World Cultures</u> Select two courses from list. _____	6		

**Notes:**

- Assumes students are qualified at the ENG/ESL 100 level. If not, students may be required to take other courses as specified after taking the English Writing Placement Test
- Students are required to review requirements for courses in catalog, such as pre-requisites or co-requisites for each course.
- MARE 250 counts for Quant. Reasoning (need Mod. Acad. Req. form)

WI. Writing Intensive Course Requirement			
The number of WI courses required depends on your class standing and year matriculated. Freshman and Sophomores will need to take <u>3 WI courses</u> , Juniors: <u>2 WI courses</u> , Seniors: <u>1 WI course</u> . One WI course must be numbered 300 or above. At least 2 WI courses are covered by MARE requirements: ENG 225/287; MARE 480, MARE 470/471. Please refer to catalog for information. WI courses are listed online: <a href="http://www.uhh.hawaii.edu/academics/wi/">http://www.uhh.hawaii.edu/academics/wi/</a>			
Course	Hours	Grade	Term

HPP. Hawai'i Pan-Pacific Requirement			
One course is required in this area for graduation. There is a large list of courses to choose from in the catalog. The course used to fulfill this requirement may also be used to satisfy a General Education, Writing Intensive, or major/ minor requirement. <i>Four courses in Marine Science (Mare 140, 140L, 156 and 310) may be counted in this area.</i>			
Course	Hours	Grade	Term
	3		

General Education Area Requirements: 19 hours.			
Course	Hours	Grade	Term
<u>GH. Humanities Disciplines</u> Select 2 courses from 2 different disciplines _____	6		
<u>GS. Social Sciences Disciplines</u> Select 2 courses from 2 different disciplines _____	6		
<u>GN. Natural Sciences Electives</u> Two courses and one lab. <i>Requirement fulfilled in Marine Science Major.</i>	7		

GCC. Global and Community Citizenship Requirement			
One course from the approved list in this area is required for graduation. The course used to fulfill this requirement may also be used to satisfy a General Education, Writing Intensive, or major/ minor requirement.			
<i>Requirement satisfied by MARE471 or MARE 480</i>	3		

**Note:** Additional requirements for graduation are continued on next page.

General Electives: Variable elective courses/hours necessary to total 120 hours.			
Course	Hours	Grade	Term

**2016/17 Catalog: Marine Science Major Requirements  
(90 hours)**

Biology & Marine Science Core: 38 hours.			
Course	Hours	Grade	Term
MARE 171, 171L* Marine Biology – Diversity	4		
MARE 172 Marine Biology – Cellular Processes	3		
MARE 201-201L* Oceanography	5		
MARE 250* Statistical Applications in Marine Science	3		
MARE 265* Marine Ecology and Evolution	3		
MARE 350, 350L Coastal Methods and Analyses <b>OR</b> MARE 353, 353L Pelagic Methods and Analyses	5		
MARE 425 Chemical Oceanography	3		
MARE 440 Physical Oceanography	3		
MARE 461 Geological Oceanography	3		
<b>**Choose one sequence:</b> MARE 470 (3) Senior Thesis Research & MARE 471 (3) Senior Thesis Report  MARE 480 (3) Senior Internship + 3 credits of MARE electives at 300-400 level  MARE 495 (3) Senior Seminar + 3 credits of MARE electives at 300-400 level	6		

Required Courses from Related Fields: 43 hours.			
Course	Hours	Grade	Term
CHEM 161, 161L General Chemistry I	4		
CHEM 162, 162L General Chemistry II	4		
CHEM 241, 241L Organic Chemistry I	4		
CHEM 242, 242L Organic Chemistry II	4		
GEOL 111 Understanding the Earth	3		
PHYS 170, 170L General Physics I	5		
PHYS 171, 171L General Physics II	5		
MATH 205 Calculus I	4		
MATH 206 Calculus II	4		
COM 251 Public Speaking	3		
ENG 225 Writing for Science and Technology Or ENG 287 Introduction to Rhetoric	3		

\*Prerequisites for most 300/400-level MARE courses

Marine Science Electives: 9 hours. Select 9 semester hours from the course listed below. 6 hours must be courses numbered MARE 300 and above (note any prerequisites in the catalog).			
Course	Hours	Grade	Term

MARE 240 (3) Small Boat Operations in Research  
MARE 264 (3) Quantitative Underwater Ecological Survey Techniques (QUEST)  
MARE 282 (3) Global Change  
MARE 310 (3) The Atoll Ecosystem  
MARE 325 (3) Coral Reef Ecology  
MARE 350, 350L (5) Coastal Methods and Analysis  
or 353, 353L (5) Pelagic Methods and Analysis  
MARE 360 (3) Marine Resources  
MARE 364 (3) Advanced QUEST  
MARE 366 (3) Tropical Marine Research Investigations  
MARE 371, 371L (4) Biology of Marine Invertebrates and Lab  
MARE 372, 372L (4) Biology of Marine Plants and Lab  
MARE 390, 390L (4) Biology of Marine Mammals and Lab  
MARE 394A-Z (1-3) Special Topics in Marine Science  
MARE 405 (3) Watersheds  
MARE 410 (3) Marine Debris in the Pacific  
MARE 434 (3) Teaching Marine Science  
MARE 435 (3) Marine Field Experience for Teachers  
MARE 444 (3) Biological Oceanography  
MARE 445 (3) Marine Microbial Ecology  
MARE 446, 446L (4) Phytoplankton Ecology  
MARE 460 (3) Marine Conservation  
MARE 484 (3) Biology of Fishes  
MARE 484L (1) Biology of Fishes Lab  
MARE 488 (3) Ku'ula: Integrated Science  
MARE 490, 490L (4) Marine Reptile Conservation and Ecology and Lab  
MARE 494A-Z (1-3) Special Topics in Marine Science  
AGEN 400 (4) Aquacultural Engineering  
AQUA 262 (3) Introduction to Aquaculture  
AQUA 425, 425L (4) Water Quality and Aquatic Productivity  
AQUA 466 (3) Fisheries Science  
ECON 380 (3) Natural Resource and Environmental Economics  
GEOG 340 (3) Principles of Land Use Planning  
GEOG 440 (3) Advanced Environmental Planning  
GEOG 470 (3) Remote Sensing and Air Photo Interpretation  
GEOG 480 (3) Geographic Information Systems and Computer Mapping  
GEOL 344 (3) Coastal Geology  
POLS 335 (3) Environmental Politics and Policy

**Notes:**

- Electives should be chosen by the student in consultation with a marine science advisor.
- MARE 399, 499 – Directed Reading/Directed Studies does not count toward the major but as credits toward graduation. Only 6 hrs/semester; maximum of 12 toward degree.
- **All courses in the major, including pre-requisites and courses from related fields require a grade of 'C-' or higher.**

Additional General Requirements for all Baccalaureate Degrees. Indicate with "(√)" that requirement is met.	
120 hours(minimum) required for degree	( )
30 hours must be in the College of Arts and Sciences	( )
9 hours in major elective courses 300 level or above must be completed	( )
Cum 2.00 GPA in all coursework	( )
Cum 2.00 GPA in major area coursework	( )
Cum 2.00 GPA in minor area coursework	( )