# Recommended Coursework Strategy for B.S. Biology, Concentration in Marine Biology & Limnology - 4 year plan

*MEET WITH YOUR MARINE BIOLOGY MAJOR ADVISOR EVERY SEMESTER!*

Students who are “Undeclared with an Interest in Biology – BS” should be taking COURSES IN THE MAJOR in YEAR 1.

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*Lower Division Requirement includes 16 – 17 units selected from:

MATH 226 Calculus I (4)  
MATH 227 Calculus II (4)  
PHYS 111/112 General Physics I/Laboratory (3/1)  
PHYS 121/122 General Physics II/Laboratory (3/1)  
CHEM 215/216 General Chemistry II (3/2) Prereq: C or better in CHEM 115 and C- or better in: PHYS 111 or PHYS 220

**Upper Division Requirement includes 3 – 5 units selected from (courses offered different semesters):

BIOL 534 Wetland Ecology (4)  
BIOL 580 Limnology (3)  
BIOL 582 Biological Oceanography (4)  
BIOL 585/586 Marine Ecology/Laboratory (3/2)

***Upper Division Requirement of 14 – 17 Elective units: obtain approval from major advisor before taking elective classes.

Elective courses include courses from the alternates not used in fulfilling the requirements listed above or from below:

BIOL 502 Biology of the Algae  
BIOL 526 Plant Physiology Laboratory (2)  
BIOL 532 Restoration Ecology (3)

Updated 1/30/15
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BIOL 555    Marine Invertebrate Zoology (4)
BIOL 556    Natural History of Marine Invertebrates (4)
BIOL 570 GW Biology of Fishes (4)
BIOL 575    Fisheries Biology
BIOL 584    Marine Microbial Ecology Laboratory (1)
BIOL 585    Marine Ecology
BIOL 586    Marine Ecology Laboratory (2)
BIOL 631 GW Animal Physiology Laboratory (2)
CHEM 680    Chemical Oceanography
GEOL 642    Watershed Assessment (4)
OCN 410     Coastal Processes
MSCI 312-375 Any without duplicating courses taken at SFSU

Students are required to complete the Upper Division Graduate Writing Assessment Requirement (GWAR) within the major. http://biology.sfsu.edu/content/gwar

This is a RECOMMENDATION only. It is designed so that two majors science classes are taken each semester (except in Year 4). It is certainly possible to take three science courses, if you can manage your time appropriately. Check the prerequisites of courses to see if you can take a course earlier in this scheme. Also, note that there is flexibility in the lower division requirements so that it is possible to schedule physics or calculus during the 3rd or 4th year—consult major advisor to customize this course plan.

Updated 1/30/15