

MARINE BIOLOGY: MAJORS

First & Second Year:

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|-----------------------------------|--|--|---|--|---|
| First Year (34 credits) | <input type="checkbox"/> BIOL 112 <input type="checkbox"/> BIOL 121 & 140 | <input type="checkbox"/> CHEM 121 & 123 or <input type="checkbox"/> CHEM 111 & 113 | <input type="checkbox"/> PHYS 101 or 121 <input type="checkbox"/> Electives (3 credits) | <u>Two of MATH:</u> <input type="checkbox"/> 100, 102, 104, 120, 180, or 184 <input type="checkbox"/> 101, 103, 105, 121 | <input type="checkbox"/> ENGL (6 credits of 100 level English) - ENGL 112 recommended |
| Second Year (31 to 32 credits) | <input type="checkbox"/> BIOL 200 <input type="checkbox"/> BIOL 201 | <input type="checkbox"/> BIOL 205 <input type="checkbox"/> BIOL 209 | <input type="checkbox"/> CHEM 233 <input type="checkbox"/> CHEM 235 <input type="checkbox"/> CHEM 205 | <input type="checkbox"/> Electives (6 credits) -BIOL 204 & 210 recommended | <input type="checkbox"/> Arts Electives (6 credits) |

Registration Notes for 1st & 2nd year Biology:

1. BIOL 112,121, and 140 are prerequisites to the Major or Honours program options in the Biology Program. Students who have completed Biology 12 may enter into these courses directly. Students with Biology 11 may enter BIOL 112 if they have Chem 12. BIOL 112 is acceptable as the sole prerequisite for BIOL 121. Students without high school biology must take BIOL 111 before registering in BIOL 112,121, and 140.
2. Students without Physics 12 must replace elective with PHYS 100 (prior to PHYS 101).
3. Three credits of first-year English courses may be deferred to second year.

Third & Fourth Year:

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| Third Year (31 credits) | <u>One of BIOL:</u> <input type="checkbox"/> 351 and 352 <input type="checkbox"/> 353 | <input type="checkbox"/> BIOL 334 <input type="checkbox"/> BIOL 335 or 336 | <input type="checkbox"/> BIOL 300 <input type="checkbox"/> BIOL 320 | <input type="checkbox"/> BIOL 302 (3) <input type="checkbox"/> BIOL 303 (3) | <input type="checkbox"/> Arts Electives (6 credits) |
| Fourth Year (30 credits) | <input type="checkbox"/> Marine Biology Electives 300 level or higher (6 Credits) | <input type="checkbox"/> Marine Biology Electives 300 level or higher (6 Credits) | <input type="checkbox"/> Marine Biology Electives (3) <input type="checkbox"/> Breadth Elective (3 credits) | <input type="checkbox"/> Breadth Electives (6 credits) | <input type="checkbox"/> Electives (6 credits) |

Registration Notes for 3rd & 4th year Biology:

1. Students **must take** their physiology course (BIOL 350,351/352, or 353) **in third year**. If other constraints require that you take this course in 4th year you need the permission of your program advisor and let the Biology Office know.
2. Students are encouraged to undertake 3 to 6 credits of **Directed Studies** (BIOL 448). Three credit of BIOL 448 may be counted as a Biology Program Elective with the permission of either their supervisor (if in Botany/Zoology) or a Marine Biology Program Advisor.
3. Breadth Electives – 9 credits must be in Arts or in Science outside the field of major
4. Marine Biology Electives ~ See list on reverse side

For further information please see the Biology Program website <http://www.zoology.ubc.ca/bpg/index.html> or visit the Biology Program Office Rm. 2521!!!

Marine Biology Program Electives

Some courses listed here may not be available in the current year. Please check the UBC Course Schedule website for current course availability <http://courses.students.ubc.ca!!>

BIOL 301 - Biomathematics
BIOL 305 - Biological Oceanography
BIOL 325 - Biomechanics
BIOL 331 - Animal Development
BIOL 332 - Protists
BIOL 402 - Aquatic Ecology
BIOL 403 - Biological Oceanographic Methods
BIOL 405 - Marine Ecology
BIOL 408 - Applied Ecology
BIOL 413 - Zoogeography
BIOL 428 - Invertebrate Aquaculture
BIOL 429 - Algal Aquaculture (not offered 2004/05)
BIOL 448 - Directed Studies
BIOL 465 - Biology of Fishes
MATH 361 - Introduction to Mathematical Biology
MATH 462 - Mathematical Biology
MRNE 400A - Directed Studies
MRNE 410 - Marine Invertebrate Embryology
MRNE 411 - Comparative Invertebrate Embryology
MRNE 412 - Fishes
MRNE 413 - Marine Molluscs
MRNE 415 - Structure and Function in Marine Animals
MRNE 420 - Marine Phycology
MRNE 425 - Ecological Adaptations of Seaweeds
MRNE 430 - Marine Ecology
MRNE 435 - Biological Oceanography
MRNE 437 - Population and Community Ecology of Marine Organisms
MRNE 445 - Marine Mammals
MRNE 450 - Principles of Aquaculture
MRNE 454 - Topics in Aquaculture
MRNE 460 - Topics in Aquacultural Applied Science
MRNE 470 - Directed Research in Aquaculture
EOSC 371 - (OCGY 308) Introduction to Biological and Geological Oceanography
EOSC 470 - (OCGY 405) Biological Oceanography
EOSC 471 - Dynamic Biological Oceanography
EOSC 474 - (OCGY 407) Marine Pollution
EOSC 475 - (OCGY 410) Marine Microbiology
EOSC 476 - (OCGY 412) Estuaries
EOSC 478 - (OCGY 413) Fisheries Science