

**BIOLOGY PROGRAM WORKSHEETS 2010-11**  
**MARINE BIOLOGY: MAJORS**

**First & Second Year:**

First Year (34 credits)	<input type="checkbox"/> BIOL 112  <input type="checkbox"/> BIOL 121 & 140	<input type="checkbox"/> CHEM 121 & 123  <b>OR</b> <input type="checkbox"/> CHEM 111 & 113	<input type="checkbox"/> PHYS 101  <input type="checkbox"/> Elective (3 credits) or <b>PHYS 100</b>	<b><u>Two of MATH</u></b> <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 (33 credits)	<input type="checkbox"/> BIOL 200  <input type="checkbox"/> BIOL 201	<b><u>Two of:</u></b> <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"/> <b>Elective (6 credits)</b> -BIOL 204, or 210 recommended	<input type="checkbox"/>  <b>Arts Elective (6 credits)</b>

**Registration Notes for 1<sup>st</sup> & 2<sup>nd</sup> 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 any of these courses directly. Students with Biology 11 may enter BIOL 112 if they have Chem 12; BIOL 112 is acceptable as 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:**

Third Year (30-31 credits)	<b><u>One of BIOL:</u></b>  <input type="checkbox"/> 351 and 352 <input type="checkbox"/> 361, 363, 364	<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 304 (3)  <input type="checkbox"/> BIOL 306 (3)	<input type="checkbox"/> <b>Arts Electives</b> (6 credits)
Fourth Year (30 credits)	<input type="checkbox"/> <b>Marine Biology Electives</b> 300 level or higher (6 Credits)	<input type="checkbox"/> <b>Marine Biology Electives</b> 300 level or higher (6 Credits)	<input type="checkbox"/> BIOL 326  <input type="checkbox"/> <b>Breadth Elective</b> (3 credits)	<input type="checkbox"/> <b>Breadth Electives</b> (6 credits)	<input type="checkbox"/> <b>Electives (6 credits)</b>

**Registration Notes for 3<sup>rd</sup> & 4<sup>th</sup> year Biology:**

1. Students **must take** their physiology course sequence (BIOL 351/352 or BIOL 361/363/364) **in third year**. If other constraints require that you take these courses in 4<sup>th</sup> year (i.e. Co-op or Exchange) you need to request permission to do so from Dr. Adamson, Director of Biology. Please submit all requests to the Biology Office.
2. Students are encouraged to take 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. **Marine Biology Electives** ~ See list on reverse side
4. **Faculty of Science Elective Requirements** (*May be any level as long as the upper level requirement of 48 upper level credits including at least 30 credits from the Faculty of Science is satisfied. Also, up to 18 credits of course work in a faculty other than Science or Arts may be taken for credit.*)
  - **Arts Electives** - 12 credits from the Faculty of Arts
  - **Breadth Electives** – 9 credits must be in Arts or in Science outside the field of major. *The field of major being Life Sciences breadth electives cannot be BIOC, BIOL, MICB, MRNE, EOSC 470, 471, 474, 475, 476, 478; PSYC 304, 306, PSYC (Science) and Science credit courses in the Faculties of Medicine and Land & Food Systems.*
  - **Electives** – May be from any faculty.

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