COMBINED MAJOR IN SCIENCE
http://www.cms.science.ubc.ca/home
Astronomy (ASTR), Chemistry (CHEM),
Earth and Environmental Sciences (EES)

First and Second Year

First Year

- MATH 100 (or equiv)
- CHEM 121 (111)
- PHYS 101 or 107
- *EES Elect —
- Communication (See page 2)

Second Year

- STAT 200
- CHEM 205
- PHYS 201 or 108
- MATH 200
- Arts (See page 2)

*EES Elective: one of ATSC 201, BIOL 111, BIOL 112, BIOL 121, GEOB 103, 200 or EOSC 110 and 111.

Students who do not have credit for Biology 11 or 12 take 3 credits of 100-level BIOL (usually BIOL 111).

Note: PHYS 210, ASTR 200, ASTR 205 are recommended.

Third and Fourth Year – See below for specific information on packages

3rd/4th Years

- SCIE 300
- CHEM pkg course
- PHYS 301
- EOSC 340
- Arts (See page 2)

- Generalist Requirement (see page 2)
- CHEM pkg course
- ASTR pkg course
- EES pkg course
- Lab Requirement (see page 2)

CMS PACKAGES:

1. ASTRONOMY (ASTR) CMS PACKAGE:
   - PHYS 301
   - 6 credits from ASTR 300, 333, 403, 406, 407

2. CHEMISTRY (CHEM) CMS PACKAGE:
   - CHEM 341 (3)
   - 6 credits CHEM courses 300- or 400-level

3. EARTH AND ENVIRONMENTAL SCIENCES (EES) CMS PACKAGE:
   - EOSC 340 (3)
   - 3 credits from EOSC 326+, 355, 372
   - 3 credits from Earth and Environmental Science courses 300- or 400-level: ATSC, ENVR, GEOB (except for GEOB 307, 407), EOSC (except for EOSC 310, 311, 312, 314, 315, 371, 470, 471, 474, 475, 478). Recommended: another one of EOSC 326+, 355, 372 or EOSC 324+, 329, 330+, 373 or GEOB 300.*

   Specific prerequisites required from the EES electives
LOWER LEVEL REQUIREMENTS:
Review lower level requirements for B.Sc.
http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,215,410,1465

LAB REQUIREMENT:
Must take 2 of the following:
- CHEM 315 (1 cr) - Prerequisites: CHEM 233, 235, 205
- EOSC 442 (1 cr) - Prerequisites: EOSC 340 and one of (CPSC 110, CPSC111, CPSC 301, EOSC 211, PHYS 210, MATH 210), and one of STAT 200, STAT241, BIOL300
- BIOL 342 (2 cr) - Prerequisite: BIOL 121, 140. (BIOL112/BIOL200 recommended)
- PHYS 309 (3 cr) - Prerequisite: PHYS 209

CORE COURSES:
- MATH 100/101 (or equivalent)
- STAT 200 - can be replaced with STAT 241 or BIOL 300 in program
  Note: BIOL 300 will not count as a life science elective.
- SCIE 300 (Communicating Science)
- Computing Requirement: one of: CPSC 110 (or 111), CPSC 301, EOSC 211, MATH 210, PHYS 210
- Generalist Requirement: One course (at least 3 cr) from:
  Mathematical Sciences: MATH 200-level, MATH 360 or 300-level MATH
  Life Sciences: BIOL 121, 343, 345, 346, 438

GRADUATION CHECKLIST TABLE FOR CMS

<table>
<thead>
<tr>
<th>CREDIT TOTALS</th>
<th>Completed</th>
<th>in Progress</th>
<th>Total</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Credits: includes all UBC courses, transfer credits &amp; advance credits. DO NOT count paired courses, COOP credits, or courses “not for credit in the Faculty of Science”.</td>
<td></td>
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<td>120</td>
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<tr>
<td>Science Credits: includes all required &amp; elective Science courses at all year levels.</td>
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<td>72</td>
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<tr>
<td>Communication Credits: six credits from ENGL 100, 110, 111, 112 (recommended), 120, 121; SCIE 113; SCIE 300 or CHEM 300; APSC 176; ASTU 100, 150; or WRDS 150; their equivalents</td>
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<td>Arts Credits: includes arts courses at all year levels.</td>
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<td>12</td>
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<tr>
<td>Upper-Level Credits: includes all courses at the 300-level and 400-level in any field (Arts, Science, and a maximum of 18 “Other” cr.).</td>
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<td></td>
<td>48</td>
</tr>
<tr>
<td>Upper-Level Science Credits: includes all Science courses at the 300-level and 400-level required for program.</td>
<td></td>
<td></td>
<td></td>
<td>32 – 38*</td>
</tr>
</tbody>
</table>

* Number of credits will depend on selection of lab requirement.

Review CMS information in Calendar:
http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,215,410,1474