## COMBINED MAJOR IN SCIENCE

**http://www.cms.science.ubc.ca/home**

Chemistry (CHEM), Earth and Environmental Sciences (EES), Life Sciences (LSC)

### First Year
- **Math (MATH)**
  - MATH 100 (or equiv.)
  - MATH 101 (or equiv.)
- **Chemistry (CHEM)**
  - CHEM 121 or 120+115 or CHEM 111 or 110+115
  - CHEM 123 or 130+135
- **Physics (PHYS)**
  - PHYS 101 or 107 or 117 or 131
  - *(EOSC 114 Recom)*
- **Biology (BIOL)**
  - BIOL 112
  - BIOL 121
  - BIOL 140/180
- **Communication** (See page 2)
- **Computing req.** (see page 2)

### Second Year
- **Math (MATH)**
  - STAT 200 (or equiv.)
- **Chemistry (CHEM)**
  - CHEM 233 +235 or CHEM 203 or 223+225
  - CHEM 205 or 208 or 213 or CHEM 211 or 210+215
- **Physics (PHYS)**
  - PHYS 101 or 107 or 117 or 131
  - *(EOSC 114 Recom)*
- **Biology (BIOL)**
  - BIOL 112
  - BIOL 121
  - BIOL 140/180
- **Communication** (See page 2)
- **Computer req.** (see page 2)

### Third and Fourth Year – See below for specific information on packages
- **Chemistry (CHEM)** CMS PKG courses:
  - 6 credits CHEM courses 300- or 400-level (except: CHEM 300, CHEM 348)
- **Earth and Environmental Sciences (EES)** CMS PKG courses:
  - Recommended: another one of EOSC 324, 326*, 329, 330, 355, 372, 373, or GEOS 300*
  - Specific prerequisites required from the EES electives*
- **Life Sciences (LSC)** CMS PKG courses:
  - Courses at the 300- or 400-level in CAPS, BIOC, BIOL (except: BIOL300, 344, 345, 346, 448), MICB, MRNE, MEDG, PCTH; as well as GEOS 307, 407, EOSC 470, 471, 474, 475, 478, PSYC 360-368 and 460, 461, 462.

### Third and Fourth Years
- **Chemistry (CHEM)** CMS PKG courses:
  - CHEM 341
  - CHEM pkg Course 1
  - CHEM pkg Course 2
  - Lab req. (See page 2)
- **Earth and Environmental Sciences (EES)** CMS PKG courses:
  - EOSC 326, or 355, or 372
  - EES pkg course
- **Life Sciences (LSC)** CMS PKG courses:
  - LSC pkg Course 1
  - LSC pkg Course 2
  - LSC pkg Course 3

*EES Elective: one of ATSC 201, BIOL 111, BIOL 112, BIOL 121, GEOB/GEOS 103, 200 or EOSC 110 and 111*
LOWER LEVEL REQUIREMENTS FOR BSC:
http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,215,410,1465

CMS LAB REQUIREMENT
Must take 2 of the following:
- **CHEM 315 or 355** (1 cr) - Prerequisites: one of CHEM 233+235, CHEM 203 or 223 + 225, CHEM 205, CHEM 208, CHEM 211 or CHEM 210+215.
- **EOSC 442** (1 cr) - Prerequisites: EOSC 340, and one of CPSC 103, CPSC 110, CPSC 111, CPSC 301, EOSC 211, PHYS 210, MATH 210, and one of STAT 200, STAT241, STAT251, BIOL300
- **BIOL 342** (2 cr) - Prerequisite: BIOL 121, 140 or 180
- **PHYS 309** (3 cr) - Prerequisite: PHYS 219 and PHYS 229 (PHYS 219 has multiple prerequisites). Please note that this course does not count as a PHYS package course unless you take two other lab courses to fulfill the lab requirement.

CMS CORE COURSES:
- **MATH 100/101** (or equivalent)
- **STAT 200** (or STAT 241 or STAT 251 or BIOL 300)
- **SCIE 300** (Communicating Science)
- **Computing Requirement**: one of: CPSC 100, CPSC 103, CPSC 110 (or 111), CPSC 301, EOSC 211, MATH 210, PHYS 210
- **Generalist Requirement**: only required for students who entered the CMS program prior to 2019S. These students take one (at least 3 cr) of MATH 200-level, any 300-level MATH, ASTR 200, PHYS 200, PHYS 305, PHYS 330, PHYS 333

CMS GRADUATION CHECKLIST TABLE:
Review Upper Level B.Sc. Requirements:

<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><strong>Total Credits</strong>: 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>
<td></td>
<td></td>
<td>120</td>
</tr>
<tr>
<td><strong>Science Credits</strong>: includes all required &amp; elective Science courses at all year levels.</td>
<td></td>
<td></td>
<td></td>
<td>72</td>
</tr>
<tr>
<td><strong>Communication Credits</strong>: six credits from ENGL 100, 110, 111, 120, 121; SCIE 113 (recommended); CHEM 300; APSC 176; ASTU 100, 150; or WRDS 150 (recommended); their equivalents; SCIE 300 (required)</td>
<td></td>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td><strong>Arts Credits</strong>: includes arts courses at all year levels.</td>
<td></td>
<td></td>
<td></td>
<td>12</td>
</tr>
<tr>
<td><strong>Upper-Level Credits</strong>: includes all courses at the 300-level and 400-level in any field (Arts, Science, and a maximum of 18 “Other” cr.).</td>
<td></td>
<td></td>
<td></td>
<td>48</td>
</tr>
<tr>
<td><strong>Upper-Level Science Credits</strong>: 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 and generalist requirements.

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