## COMBINED MAJOR IN SCIENCE

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

Life Sciences (LSC), Earth and Environmental Sciences (EES),
Mathematical Sciences – mathematics (MATH)

### First Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 100</td>
<td>(or equiv.)</td>
</tr>
<tr>
<td>MATH 101</td>
<td>(or equiv.)</td>
</tr>
<tr>
<td>BIOL 112</td>
<td></td>
</tr>
<tr>
<td>BIOL 121 + BIOL140</td>
<td></td>
</tr>
<tr>
<td>PHYS 101 or 107 or 117 or 131</td>
<td></td>
</tr>
<tr>
<td>CHEM 121 or 120+115 or CHEM 111 or 110+115</td>
<td></td>
</tr>
<tr>
<td>CHEM 123 or 130+135</td>
<td></td>
</tr>
</tbody>
</table>

Communication (See page 2)

### Second Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 200</td>
<td>(or equiv.)</td>
</tr>
<tr>
<td>BIOL 200</td>
<td></td>
</tr>
<tr>
<td>BIOL 200</td>
<td></td>
</tr>
<tr>
<td>EES* elective</td>
<td></td>
</tr>
<tr>
<td>MATH 200</td>
<td></td>
</tr>
<tr>
<td>MATH 221</td>
<td></td>
</tr>
</tbody>
</table>

Arts (See page 2)

### Third and Fourth Year

- **Third and Fourth Years**
  - SCIE 300
  - LSC pkg Course 1
  - EOSC 340
  - MATH pkg Course 1
  - SCIE 300
  - LSC pkg Course 2
  - EOSC 326, or 355, or 372
  - MATH pkg Course 2
  - Generalist req. (See page 2)
  - LSC pkg Course 3
  - EES pkg course
  - Lab req. (See page 2)

- **Fifth Year**
  - SCIE 300
  - LSC pkg Course 1
  - EOSC 340
  - MATH pkg Course 1
  - SCIE 300
  - LSC pkg Course 2
  - EOSC 326, or 355, or 372
  - MATH pkg Course 2
  - Generalist req. (See page 2)
  - LSC pkg Course 3
  - Lab req. (See page 2)

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

1. **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 GEOB 307, 407, EOSC 470, 471, 474, 475, 478, PSYC 360-471 and 460 - 472.

2. **EARTH AND ENVIRONMENTAL SCIENCES (EES) CMS PKG COURSES:**
   - Recommended: another one of EOSC 324, 326*, 329, 330, 355, 372, 373, or GEOB 300*

   Specific prerequisites required from the EES electives

3. **MATHEMATICAL SCIENCES – MATHEMATICS (MATH) CMS PKG COURSES:**
   - MATH courses at the 300- or 400-level; recommended: MATH 302, 307, 317, 340, 360
   - ! Some courses may have additional pre-requisites!
   - Pay particular attention to the credit-exclusion list (UBC calendar)
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 CHEM 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, STAT 241, STAT 251, BIOL 300.
- **BIOL 342** (2 cr) - Prerequisite: BIOL 121, 140
- **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) from: any CHEM 200-level or higher (except: CHEM300; ASTR 200; PHYS 200, 305, 330, 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 is required for the CMS program</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