# COMBINED MAJOR IN SCIENCE

http://www.cms.science.ubc.ca/home
Chemistry (CHEM), Earth and Environmental Sciences (EES), Mathematical Sciences – INTERFACE (any option)

### First Year

- **MATH 100** (or equiv.)
- **MATH 101** (or equiv.)
- **CHEM 121 or 120+115 or CHEM 111 or 110+115**
- **CHEM 123 or 130+135**
- **PHYS 101 or 107 or 117 or 131**
- **(EOSC 114 Recom)**
- **EES* elective**
- **CPSC 110 or 111 (Interface A, C, D)**
- **Communication (See page 2)**

### Second Year

- **STAT 200** (or equiv.)
- **Computing req. (see p. 2)**
- **CHEM 233 +235 or CHEM 203 or 223+225**
- **CHEM 205 or 205 or 213 or 211 or 210+215**
- **CPSC 121 AND 210 (Interface C only)**
- **MATH 200**
- **MATH 221**
- **Arts (See page 2)**

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

- **SCIE 300**
- **CHEM 341**
- **EOSC 340**
- **Interface pkg Course 1**
- **Interface pkg Course 2**
- **Arts (See page 2)**

### Generalist req. (see page 2)

- **CHEM pkg Course 1**
- **EOSC 326, or 355, or 372**
- **Interface pkg Course 2**
- **Interface pkg Course 3**
- **Arts (See page 2)**

- **Lab req. (See page 2)**
- **EES pkg course**
- **Interface pkg Course 3**
- **Arts (See page 2)**

1. **CHEMISTRY (CHEM) CMS PKG COURSES:**
   - 6 credits CHEM courses 300- or 400-level (except: CHEM 300, CHEM 348)

2. **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*

3. **MATHEMATICAL SCIENCES (MASC) – INTERFACES A – D CMS PKG COURSES:**
   - Select one of the following Interface options:
     - **Interface A** – Prerequisites: CPSC 110 or 111, MATH 200, 221; Package courses: two of: MATH/STAT 302, MATH 303, STAT 305; One of: CPSC 302, CPSC 303
• **Interface B** – Prerequisites: MATH 200, 221; Package courses: All of: MATH/STAT 302, MATH 303, STAT 305

• **Interface C** – Prerequisites: CPSC 110 or 111, 121, 210 or, 221, MATH 200, 221; Package courses: All of: CPSC 340, STAT 306, STAT 406

• **Interface D** – Prerequisites: CPSC 110 or 111, 121, 210 or, 221, MATH 200, 221; Package courses: All of: CPSC 302, 402, MATH 307

**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 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). 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, 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 BIOL 121, 343, 345, 346, 438, 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>
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<td>120</td>
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<tr>
<td><strong>Science Credits:</strong> 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><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>
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<td>6</td>
</tr>
<tr>
<td><strong>Arts Credits:</strong> includes arts courses at all year levels.</td>
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<td>12</td>
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<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>
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<td>48</td>
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<tr>
<td><strong>Upper-Level Science Credits:</strong> includes all Science courses at the 300-level and 400-level required for program.</td>
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<td></td>
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<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