### COMBINED MAJOR IN SCIENCE

[MATH 100 or MATH 101]

**First Year**

- **Mathematics**
  - MATH 100 (or equiv.)
  - MATH 101 (or equiv.)
  - CPSC 110 or CPSC 111 (Interface A, C, D)
  - CPSC 121 (Interface C only)
  - CHEM 121 (or 111)

- **Environmental Sciences (EES)**
  - EES* elective

- **Physics & Astronomy – Physics (PHYS)**
  - PHYS 101 or 107 or 117
  - PHYS 118 + 119 (or 102, or 108+109)

- **Communication** (See page 2)

**Second Year**

- STAT 200 (or equiv.)
- Computing req. (see p. 2) only Interface B

- CPSC 210 (Interface C only)
- MATH 217 (or 200)
- MATH 221
- PHYS 200

- **Arts** (See page 2)

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

- SCIE 300
- Interface pkg Course 1 or 2
- Interface pkg Course 3
- Lab req. (See page 2)

**Arts** (See page 2)

1. **MATHEMATICAL SCIENCES (MASC) – INTERFACES A – D CMS PKG COURSES:**

   - **Interface A** – Prerequisites: CPSC 110 or 111, MATH 200, 221
   - Two of: MATH/STAT 302, MATH 303, STAT 305
   - One of: CPSC 302, CPSC 303

   - **Interface B** – Prerequisites: MATH 200, 221
   - All of: MATH/STAT 302, MATH 303, STAT 305

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

   - **Interface D** – Prerequisites: CPSC 110 or 111, 121, 210 or, 221, MATH 200, 221
   - All of: CPSC 302, 402 (additional pre-requisites – check!), MATH 307

2. **EARTH AND ENVIRONMENTAL SCIENCES (EES) CMS PKG COURSES:**

   - Recommended: another one of EOSC 324, 326*, 329, 330, 355, 372, 373, or GEOB 300*

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*EES Elective: one of ATSC 201, BIOL 111, BIOL 112, BIOL 121, GEOB 103, 200 or EOSC 110 and 111
3. PHYSICS (PHYS) CMS PKG COURSES:
   - All PHYS courses at the 300- or 400-level, except PHYS 348

4. PHYSICS & ASTRONOMY (PHAS) CMS PKG COURSES:
   - All PHYS and ASTR courses at the 300- or 400-level, except PHYS 348
     ASTR 300, 333, 403, 406, 407 (*have additional pre-requisites)

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 205, CHEM 208, CHEM 211
   - EOSC 442 (1 cr) - Prerequisites: EOSC 340, and one of CPSC 103, CPSC 110, CPSC111, CPSC 301, EOSC 211, PHYS 210, MATH 210, and one of STAT 200, STAT241, STAT251, BIOL300
   - 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, 103, 110, 111, 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 CHEM 200 or higher (except: CHEM 300), or BIOL BIOL 121, 343, 345, 346, 438

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>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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<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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<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>48</td>
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<tr>
<td>Upper-Level Science Credits: includes all Science courses at the 300-level and 400-level required for program.</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