COMBINED MAJOR IN SCIENCE  
http://www.cms.science.ubc.ca/home  
Mathematical sciences – Mathematics (MATH), Earth and Environmental Sciences (EES), Physics & Astronomy – Astronomy (ASTR)

**First Year**

- □ MATH 100 (or equiv.)  
- □ MATH 101 (or equiv.)  
- □ CHEM 121 (or 111)  
- □ MATH 114 recom.  
- □ PHYS 101 or 107 or 117  
- □ PHYS 118 + 119 (or 102, or 108+109)  
- □ Communication (See page 2)

**Second Year**

- □ STAT 200 (or equiv.)  
- □ MATH 221  
- □ MATH 217 (or 200 + 317)  
- □ MATH 215  
- □ PHYS 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

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

**Third and Fourth Years**

- □ SCIE 300  
- □ MATH pkg Course 1  
- □ MATH pkg Course 2  
- □ MATH pkg Course 3  
- □ EOSC 340  
- □ EOSC 326, or 355, or 372  
- □ PHYS 216  
- □ ASTR pkg Course 1 (3 cr)  
- □ Arts (See page 2)

1. MATHEMATICAL SCIENCES (MASC) - 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)

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

   Specific prerequisites required from the EES electives

3. PHYSICS (PHYS) CMS PKG COURSES:
   - All PHYS courses at the 300- or 400-level, except PHYS 348

4. ASTRONOMY (ASTR) CMS PKG COURSES:
   - ASTR 300, 333, 403, 406, 407
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, 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 CHEM 200 or higher (except: CHEM 300), or 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><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, 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><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>
<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