# COMBINED MAJOR IN SCIENCE

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

Mathematical sciences - Statistics (STAT), Life Sciences (LSC), Physics & Astronomy – Astronomy (ASTR)

## 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
- □ BIOL 112
- □ BIOL 121 + BIOL 140/180
- □ PHYS 101 or 107 or 117 or 131
- □ PHYS 118 + 119 or 108+109
- □ Communication (See page 2)

## Second Year

- □ STAT 200 (or equiv.)
- □ MATH 215
- □ MATH 217 (or 200 + 317)
- □ BIOL 121 + BIOL 140/180
- □ CHEM 123 or 130+135
- □ CHEM 111 or 110+115
- □ PHYS 200
- □ PHYS 203
- □ Arts (See page 2)

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

### Third and Fourth Years

- □ SCIE 300
- □ STAT 300
- □ STAT 302 or MATH 302
- □ STAT 306 or STAT 344
- □ Lab req. (See page 2)
- □ LSC pkg Course 1
- □ LSC pkg Course 2
- □ LSC pkg Course 3
- □ Generalist req. (see page 2)
- □ Phys 216
- □ ASTR pkg Course 1 (3 cr)
- □ ASTR pkg Course 2 (3 cr)
- □ PHYS pkg Course 1
- □ Arts (See page 2)
- □ Computing req. (see page 2)
- □ Arts (See page 2)
- □ Lab req. (See page 2)

### 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 GEOS 307, 407, EOSC 470, 471, 474, 475, 478, PSYC 360-371 and 460 - 472

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

3. **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 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, 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/ 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 CHEM 200 or higher (except: CHEM 300), EOSC 340, 326, 477, 453, 354, 329

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>
</tr>
<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>
</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>
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<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