### COMBINED MAJOR IN SCIENCE

[http://www.cms.science.ubc.ca/home](http://www.cms.science.ubc.ca/home)

Chemistry (CHEM), Mathematical Sciences – Statistics (STAT), Life Sciences (LSC)

#### First Year

- **Mathematics (MATH)**
  - MATH 100 (or equiv.)
  - MATH 101 (or equiv.)
- **Chemistry (CHEM)**
  - CHEM 121 or 120+115 or CHEM 111 or 110+115
  - CHEM 123 or 130+135
- **Physics (PHYS)**
  - PHYS 101 or 107 or 117 or 131
- **Biology (BIOL)**
  - BIOL 112

#### Second Year

- **Statistics (STAT)**
  - STAT 200 (or equiv.)
  - Computing req. (See page 2)
- **Chemistry (CHEM)**
  - CHEM 233 +235 or CHEM 203 or 223+225
  - CHEM 205 or 208 or 213 or 211 or 210+215
- **Mathematics (MATH)**
  - MATH 152 OR 221 OR 223
- **Biology (BIOL)**
  - BIOL 200 (relevant BIOL 2XX recom.)

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

- **Science (SCIE)**
  - SCIE 300
  - Generalist req. (See page 2)
- **Chemistry (CHEM)**
  - CHEM 341
  - CHEM pkg Course 1
  - CHEM pkg Course 2
  - Lab req. (See page 2)
- **Statistics (STAT)**
  - STAT 300
  - STAT 302 OR MATH 302
  - STAT 306 OR STAT 344
- **Life Sciences (LSC)**
  - LSC pkg Course 1
  - LSC pkg Course 2
  - Lab req. (See page 2)

#### Courses

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

2. **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.

*MAKE SURE YOU FULFILL THE REQUIREMENTS FOR THE BSC (SEE PAGE 2)*
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 or 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 ASTR 200, PHYS 200, PHYS 305, PHYS 330, PHYS 333, EOSC340, 326, 477, 453, 354, 329, GEOS 400

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>
<td></td>
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<td>120</td>
</tr>
<tr>
<td>Science Credits: includes all required &amp; elective Science courses at all year levels.</td>
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<td></td>
<td>72</td>
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<tr>
<td>Communication Credits: 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>Arts Credits: includes arts courses at all year levels.</td>
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<td>12</td>
</tr>
<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>
</tr>
<tr>
<td>Upper-Level Science Credits: 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