### COMBINED MAJOR IN SCIENCE

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

Mathematical sciences – Computer science (CPSC)\(^1\), Life Sciences (LSC), Physics & Astronomy – Physics (PHYS)

<table>
<thead>
<tr>
<th>First Year</th>
<th>Second Year</th>
<th>Third and Fourth Year – See below for specific information on packages</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="#" alt="Mathematics Sciences" /></td>
<td><img src="#" alt="Computing Sciences" /></td>
<td><img src="#" alt="Life Sciences" /></td>
</tr>
<tr>
<td><img src="#" alt="Physics &amp; Astronomy" /></td>
<td><img src="#" alt="Communication" /></td>
<td><img src="#" alt="Arts" /></td>
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</tbody>
</table>

#### First Year
- **Mathematics Sciences:**
  - MATH 100 (or equiv.)
  - MATH 101 (or equiv.)

#### Second Year
- **Computing Sciences:**
  - STAT 200 (or equiv.)
  - CPSC 110 or CPSC 111
  - CPSC 121
  - Chem 121 (or 111)
  - CHEM 123
  - Phys 101 or 107 or 117
  - Phys 118 + 119 (or 102, or 108+109)
  - Communication (See page 2)

#### Third and Fourth Year
- **Life Sciences (LSC):**
  - SCIE 300 (PHYS 219 + 229 recom.)
  - CPSC 221
  - CPSC pkg course 1
  - LSC pkg Course 1
  - LSC pkg Course 2
  - Lab req. (See page 2)

- **Physics (PHYS):**
  - PHYS 200
  - MATH 217 (or 200)
  - BIOL 200
  - PHYS 200

- **Physics & Astronomy (PHAS):**
  - PHYS pkg Course 1 (3 cr)
  - PHAS pkg Course 1 (3 cr)
  - Arts (See page 2)

1. **Mathematical Sciences – Computer Science (CPSC) CMS PKG COURSES:**
   - 6 credits of CPSC courses 300- or 400-level (CPSC 302 and 303 have additional prerequisites!)

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

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

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\(^1\) All students planning to pursue the CPSC package should contact the CMS advisor/director as soon as possible.

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, CPSC 111, CPSC 301, EOSC 211, PHYS 210, MATH 210, and one of STAT 200, STAT 241, STAT 251, BIOL 300
- **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), 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>
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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>
<td></td>
<td></td>
<td>6</td>
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</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>
<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>
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<td>32 – 38*</td>
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* 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