### First Year

- **MATHEMATICAL SCIENCES (MASC)**
  - MATH 100 (or equiv.)
  - MATH 101 (or equiv.)
  - CHEM 121 (or 111)
  - CHEM 123
  - BIOL 112
  - BIOL 121 + BIOL 140
  - 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 152 OR 221 OR 223
- MATH 220 OR 226
- BIOL 112
- BIOL 200
- PHYS 101 or 107 or 117
- Computing req. (see page 2)

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

- SCIE 300
- STAT 300
- STAT 302 or MATH 302
- STAT 306 or STAT 344
- Lab req. (See page 2)

#### Third and Fourth Years

- LSC pkg Course 1
- LSC pkg Course 2
- LSC pkg Course 3
- PHAS pkg Course 1 (3 cr)
- PHAS pkg Course 2 (3 cr)
- Lab req. (See page 2)

### Generalist req. (see page 2)

#### Third and Fourth Years

### Third and Fourth Years

#### Arts

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. **LIFE SCIENCES (LSC) CMS PKG COURSES:**
   - Courses at the 300- or 400-level in CAPS, BIOL, 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

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, 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), 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>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>
<td></td>
<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></td>
<td>72</td>
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<tr>
<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>6</td>
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<tr>
<td>Arts Credits: includes arts courses at all year levels.</td>
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<td></td>
<td></td>
<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>
<td></td>
<td></td>
<td></td>
<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