

## COMBINED MAJOR IN SCIENCE

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

Chemistry (CHEM), Life Sciences (LSC),  
Mathematical Sciences - MATH

### First and Second Year

<b>First Year</b>	<input type="checkbox"/> MATH 100 (or equiv)	<input type="checkbox"/> CHEM 121 (111)	<input type="checkbox"/> PHYS 101 or PHYS 107	<input type="checkbox"/> BIOL 112	<input type="checkbox"/> Communication (See page 2)
	<input type="checkbox"/> MATH 101 (or equiv)	<input type="checkbox"/> CHEM 123 (113)	<input type="checkbox"/> _____	<input type="checkbox"/> BIOL 121 BIOL 140	<input type="checkbox"/> Communication (See page 2)
<b>Second Year</b>	<input type="checkbox"/> STAT 200	<input type="checkbox"/> CHEM 233, 235	<input type="checkbox"/> MATH 200	<input type="checkbox"/> BIOL 200	<input type="checkbox"/> Arts (See page 2)
	<input type="checkbox"/> Computing Requirement (see page 2)	<input type="checkbox"/> CHEM 205	<input type="checkbox"/> MATH 221	<input type="checkbox"/> _____	<input type="checkbox"/> Arts (See page 2)

Note: BIOL 201 and Math 215 recommended

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

<b>3<sup>rd</sup>/4<sup>th</sup> Years</b>	<input type="checkbox"/> SCIE 300	<input type="checkbox"/> CHEM 341	<input type="checkbox"/> MATH pkg course	<input type="checkbox"/> LSC pkg course	<input type="checkbox"/> Arts (See page 2)
	<input type="checkbox"/> _____	<input type="checkbox"/> CHEM pkg course	<input type="checkbox"/> MATH pkg course	<input type="checkbox"/> LSC pkg course	<input type="checkbox"/> Arts (See page 2)
	<input type="checkbox"/> Generalist Requirement (see page 2)	<input type="checkbox"/> CHEM pkg course	<input type="checkbox"/> MATH pkg course	<input type="checkbox"/> LSC pkg course	<input type="checkbox"/> _____
	<input type="checkbox"/> _____	<input type="checkbox"/> Lab Requirement (see page 2)	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____

### CMS PACKAGES:

#### 1. CHEMISTRY (CHEM) CMS PACKAGE:

- CHEM 341 (3)
- 6 credits CHEM courses 300- or 400-level

#### 2. LIFE SCIENCES (LSC) CMS PACKAGE:

- 9 credits Life Science courses 300- or 400-level  
Life Science courses include: CAPS 301, 390, 391, BIOC, BIOL (except BIOL 300), GEOB 307, 407, MRNE, MEDG, MICB, PCTH, PHYL, PSYC 360-368, PSYC 460-462, and EOSC 470, 471, 474, 475, 478

#### 3. MATHEMATICAL SCIENCES (MASC) – MATH CMS PACKAGE:

- 9 credits 300- and 400-level MATH  
Highly Recommended: MATH 302, 307, 317, 340, 360  
Recommended\*: MATH 303, 316, 345, 361, 441, 442, 445  
\* additional prerequisites

## **LOWER LEVEL REQUIREMENTS:**

<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,215,410,1465>

## **LAB REQUIREMENT:**

Must take 2 of the following:

- **CHEM 315** (1 cr) - Prerequisites: CHEM 233, 235, 205
- **EOSC 442** (1 cr) - Prerequisites: EOSC 340 and one of (CPSC 110, CPSC111, CPSC 301, EOSC 211, PHYS 210, MATH 210), and one of STAT 200, STAT241, BIOL300)
- **BIOL 342** (2 cr) - Prerequisite: BIOL 121, 140. (BIOL112/BIOL200 recommended)
- **PHYS 309** (3 cr) - Prerequisite: PHYS 209

## **CORE COURSES:**

- **MATH 100/101** (or equivalent)
- **STAT 200** - can be replaced with STAT 241 or BIOL 300 in program  
*Note:* BIOL 300 does not count as a life science elective.
- **SCIE 300** (Communicating Science)
- **Computing Requirement:** one of: CPSC 110 (or 111), CPSC 301, EOSC 211, MATH 210, PHYS 210
- **Generalist Requirement:** One course (at least 3 cr) from:  
Earth and Environmental Science: EOSC 340, 326, 477, 453, 354, 329, GEOB 400;  
Physics and Astronomy: ASTR 200, PHYS 200, 305, 330, 333.

## **GRADUATION CHECKLIST TABLE FOR CMS:**

### **Review Upper Level B.Sc. Requirements:**

<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,215,410,1466>

<b>CREDIT TOTALS</b>	<b>Completed</b>	<b>in Progress</b>	<b>Total</b>	<b>Required</b>
<b>Total Credits:</b> includes all UBC courses, transfer credits & advance credits. DO NOT count paired courses, COOP credits, or courses “not for credit in the Faculty of Science”.				<b>120</b>
<b>Science Credits:</b> includes all required & elective Science courses at all year levels.				<b>72</b>
<b>Communication Credits:</b> 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				<b>6</b>
<b>Arts Credits:</b> includes arts courses at all year levels.				<b>12</b>
<b>Upper-Level Credits:</b> includes all courses at the 300-level and 400-level in any field (Arts, Science, and a maximum of 18 “Other” cr.).				<b>48</b>
<b>Upper-Level Science Credits:</b> includes all Science courses at the 300-level and 400-level, both required and elective credits for program.				<b>32 - 38*</b>

\* Number of credits will depend on selection of lab requirement.

### **Review CMS information in Calendar:**

<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,215,410,1474>