

## COMBINED MAJOR IN SCIENCE

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

Chemistry (CHEM), Earth and Environmental Sciences (EES),  
Life Sciences (LSC)

### 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 107	<input type="checkbox"/> BIOL 112	<input type="checkbox"/> ENGL 1 <sup>st</sup>
	<input type="checkbox"/> MATH 101 (or equiv)	<input type="checkbox"/> CHEM 123 (113)	<input type="checkbox"/> (EOSC 114 Recom)	<input type="checkbox"/> BIOL 121 BIOL 140	<input type="checkbox"/> Arts
<b>Second Year</b>	<input type="checkbox"/> STAT 200	<input type="checkbox"/> CHEM 233, 235	<input type="checkbox"/> EES* elective	<input type="checkbox"/> BIOL 200	<input type="checkbox"/> Arts
	<input type="checkbox"/> Computing Requirement (see page 2)	<input type="checkbox"/> CHEM 205	<input type="checkbox"/> _____	<input type="checkbox"/> (Biol 201 Recom.)	<input type="checkbox"/> Arts

\*EES Elective: one of ATSC 201, BIOL 111, BIOL 112, BIOL 121, GEOB 103, 200 or EOSC 110 and 111  
Note: Alternative for CHEM 233, 235 and 205 is CHEM 203, 204

### 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"/> EOSC 340	<input type="checkbox"/> LSC pkg course	<input type="checkbox"/> Arts
	<input type="checkbox"/> _____	<input type="checkbox"/> CHEM pkg course	<input type="checkbox"/> EOSC 326, 355, or 372	<input type="checkbox"/> LSC pkg course	<input type="checkbox"/> Arts
	<input type="checkbox"/> Generalist Requirement (see page 2)	<input type="checkbox"/> CHEM pkg course	<input type="checkbox"/> EES pkg course	<input type="checkbox"/> LSC pkg course	<input type="checkbox"/> _____
	<input type="checkbox"/> _____	<input type="checkbox"/> Lab Requirement	<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. EARTH AND ENVIRONMENTAL SCIENCES (EES) CMS PACKAGE:

EOSC 340 (3)  
3 credits from EOSC 326\*, 355, 372  
3 credits from Earth and Environmental Science courses 300- or 400-level: ATSC, ENVR,  
GEOB (except for GEOB 307, 407), EOSC (except for EOSC 310, 311, 312, 314, 315,  
371, 470, 471, 474, 475, 478).  
Recommended: another one of EOSC 324, 326\*, 329, 330, 355, 372, 373 or GEOB 300\*  
Specific prerequisites required from the EES electives\*

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

9 credits Life Science courses 300- or 400-level  
Life Science courses include: ANAT 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

## **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** (1 cr) - Prerequisites: CHEM 233, 235, 205

**EOSC 442** (1 cr) - Prerequisites: EOSC 340 and one of (EOSC 211, PHYS 210, CPSC 301)

**BIOL 342** (2 cr) - Prerequisite: BIOL 200

**PHYS 309** (3 cr) - Prerequisite: PHYS 209

**Note:** Labs can be counted as part of the 9 credits in appropriate packages

### **CMS 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 LSC package course.

**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:

Mathematical Sciences: MATH 200-level, MATH 360 or 300-level MATH

Physics and Astronomy: ASTR 201, PHYS 305, 330, 333

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

**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>Arts Credits:</b> includes arts courses at all year levels.				<b>18</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 required for program.				<b>32 – 38*</b>

\* 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>