COMBINED MAJOR IN SCIENCE

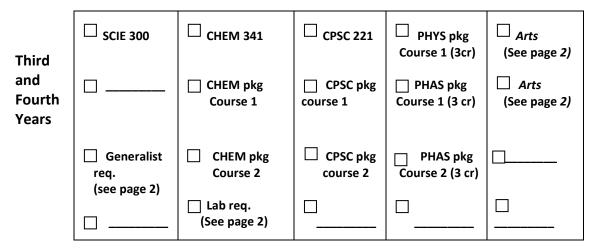
http://www.cms.science.ubc.ca/home

Chemistry (CHEM), Mathematical Sciences – Computer science (CPSC)¹,

Physics & Astronomy – Physics (PHYS)

First Year	 MATH 100 (or equiv.) MATH 101 (or equiv.) 	 CHEM 121 or 120+115 or CHEM 111 or 110+115 CHEM 123 or 130+135 	CPSC 110 or CPSC 111	 PHYS 101 or 107 or 117 or 131 PHYS 118 + 119 or 108+109 	Communication (See page 2)
Second Year	□ STAT 200 (or equiv.) □ (MATH 215 recom.)	CHEM 233 +235 or CHEM 203 or 223+225 CHEM 205 or 208 or 213 or 211 or 210+215	CPSC 121	□ PHYS 200 □ (PHYS 219 + 229 recom.)	☐ Arts (See page 2) ☐ Arts (See page 2)

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



1. CHEMISTRY (CHEM) CMS PKG COURSES:

• 6 credits CHEM courses 300- or 400-level (except: CHEM 300, CHEM 348)

2. PHYSICS (PHYS) CMS PKG COURSES:

All PHYS courses at the 300- or 400-level, except PHYS 348

3. PHYSICS & ASTRONOMY (PHAS) CMS PKG COURSES:

All PHYS and ASTR courses at the 300- or 400-level, except PHYS 348
 Recommended: PHYS 301*, 304, 305, 309*, 312*, 314*, 315*, 318, 319*, 330, 333, 404, 405, 420;
 ASTR 300, 333, 403, 406, 407 (*have additional pre-requisites)

4. MATHEMATICAL SCIENCES – COMPUTER SCIENCE (CPSC) CMS PKG COURSES:

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

- 6 credits of CPSC courses 300- or 400-level
- ! CPSC 302 and 303 have additional prerequisites

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:** student who pursue the CPSC package automatically fulfill their computing requirement by virtue of completing their CPSC pre-requisites
- Generalist Requirement: only required for students who entered the CMS program prior to 2019S. These
 students take one (at least 3 cr) of BIOL 112, 121, 345, 346, 438, EOSC 340, 326, 477, 453, 354, 329, GEOS400

CMS GRADUATION CHECKLIST TABLE:

Review Upper Level B.Sc. Requirements:

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

CREDIT TOTALS	Completed	in Progress	Total	Required
Total Credits: includes all UBC courses, transfer				120
credits & advance credits. DO NOT count paired				
courses, COOP credits, or courses "not for credit in				
the Faculty of Science".				
Science Credits: includes all required & elective				72
Science courses at all year levels.				
Communication Credits: six credits from ENGL 100,				
110, 111, 120, 121; SCIE 113 (recommended);				
CHEM 300; APSC 176; ASTU 100, 150; or WRDS 150				6
(recommended); their equivalents; SCIE 300 is				
required for the CMS program				
Arts Credits: includes arts courses at all year levels.				12
Upper-Level Credits: includes all courses at the				48
300-level and 400-level in any field (Arts, Science,				
and a maximum of 18 "Other" cr.).				
Upper-Level Science Credits: includes all Science				32 – 38*
courses at the 300-level and 400-level required for				
program.				

* 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