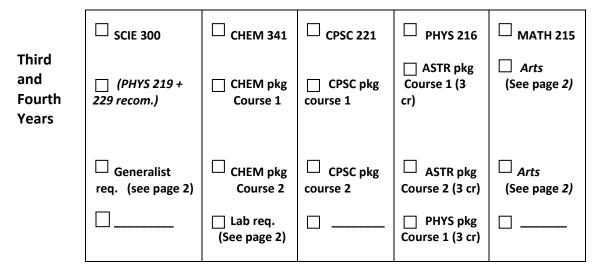
# **COMBINED MAJOR IN SCIENCE**

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

Chemistry (CHEM), Mathematical Sciences – Computer science (CPSC)<sup>1</sup>, Physics & Astronomy – Astronomy (ASTR)<sup>2</sup>

First Year	<ul> <li>MATH 100 (or equiv.)</li> <li>MATH 101 (or equiv.)</li> </ul>	CHEM 121 or 120+115 or CHEM 111 or 110+115 CHEM 123 or CHEM 130+135	CPSC 110 or CPSC 111	<ul> <li>PHYS 101</li> <li>Or 131 or 107</li> <li>or 106 or 117</li> <li>PHYS</li> <li>118+119 or</li> <li>108+109</li> </ul>	Communication (See page 2) Arts (See page 2)
Second Year	□ STAT 200 (or equiv.)	CHEM 233, 235 or CHEM 203 or 223+225	CPSC 121	PHYS 200	□ MATH 221 or 223
	☐ MATH 217 (or 200 + 317)	CHEM 205 or 208 or CHEM 211 or 210+215 or 213 or CHEM 203 or 223+225	CPSC 210 or CPSC 211	☐ PHYS 203	└─ 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. ASTRONOMY (ASTR) CMS PKG COURSES:

ASTR 300, 333, 403, 406, 407

<sup>&</sup>lt;sup>1</sup> All students planning to pursue the CPSC package should contact the CMS advisor/director as soon as possible.

<sup>&</sup>lt;sup>2</sup> The CHEM/CPSC/ASTR is a very heavy and ambitious combination.

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

- 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 355 or 315 (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:** students 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

# 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 or WRDS 150				6
(recommended); SCIE 300 (required) or CHEM 300;				
APSC 176; ASTU 100, 150; their equivalents				
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