# **COMBINED MAJOR IN SCIENCE**

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

Chemistry (CHEM), Mathematical Sciences – INTERFACE (any option),
Physics & Astronomy – Astronomy (ASTR)

First Year	MATH 101 (or equiv.)	CHEM 121 or 120+115 or CHEM 111 or 110+115	Computing req. (see p. 2) only Interface B  CPSC 110 or 111 (Interface A, C, D)	PHYS 101 or 107 or 117 or 131  PHYS 118 + 119 or 108+109	Communication (See page 2)  Communication
Secon d Year	STAT 200 (or equiv.)	130+135  CHEM 233 +235 or CHEM 203 or 223+225	☐ MATH 217 (or 200 + 317) ☐ CPSC 121 AND 210	☐ PHYS 200	(See page 2)  Arts (See page 2)  MATH 215
Third and		CHEM 205 or 208 or 213 or 211 or 210+215 See below for specif	(Interface C only) ic information on	packages	
Third and Fourth Years	☐ SCIE 300 ☐ (PHYS 219 + 229 recom.)	CHEM 341  CHEM pkg Course 1	Interface pkg Course 1  Interface pkg Course 2	PHYS 216  ASTR pkg Course 1 (3 cr)	☐ Arts (See page 2) ☐ Arts (See page 2)
	Generalist req. (see page 2)	☐ CHEM pkg Course 2 ☐ Lab req. (See page 2)	☐ Interface pkg Course 3	☐ ASTR pkg Course 2 (3 cr) ☐ PHYS pkg Course 1 (3 cr)	☐ Arts (See page 2)

# 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

# 4. MATHEMATICAL SCIENCES (MASC) – INTERFACES A – D CMS PKG COURSES:

### Select one of the following Interface options:

- Interface A Prerequisites: CPSC 110 or 111, MATH 200, 221; Package courses: two of: MATH/STAT 302, MATH 303, STAT 305; one of: CPSC 302, CPSC 303
- Interface B— Prerequisites: MATH 200, 221; Package courses: all of: MATH/STAT 302, MATH 303, STAT 305
- Interface C Prerequisites: CPSC 110 or 111, 121, 210 or, 221, MATH 200, 221; Package courses: all of: CPSC 340, STAT 306, STAT 406

 Interface D – Prerequisites: CPSC 110 or 111, 121, 210 or, 221, MATH 200, 221; Package courses: all of: CPSC 302, 402, MATH 307

#### 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: 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 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 (recommended);				
CHEM 300; APSC 176; ASTU 100, 150; or WRDS 150				6
(recommended); their equivalents; SCIE 300 is				
required for the CMS				
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.				

<sup>\*</sup> 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