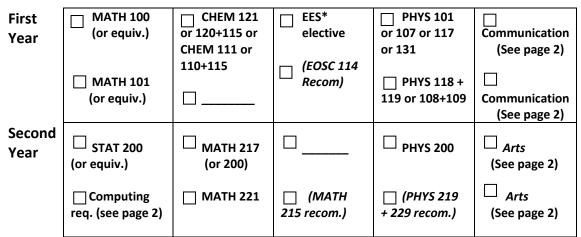
# COMBINED MAJOR IN SCIENCE

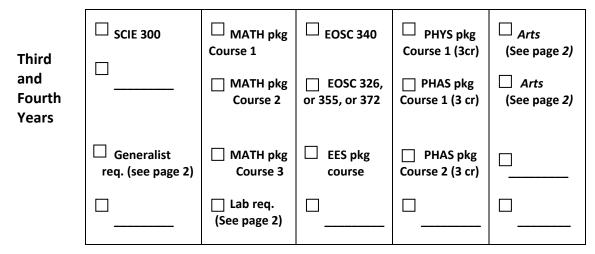
## http://www.cms.science.ubc.ca/home

Mathematical sciences - Mathematics (MATH), Earth and Environmental Sciences (EES), Physics & Astronomy – Physics (PHYS)



\*EES Elective: one of ATSC 201, BIOL 111, BIOL 112, BIOL 121, GEOB 103, 200 or EOSC 110 & 111

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



#### 1. MATHEMATICAL SCIENCES (MASC) - MATH CMS PKG COURSES:

- MATH courses at the 300- or 400-level; recommended: MATH 302, 307, 317, 340, 360
- I Some courses may have additional pre-requisites!
- Pay particular attention to the credit-exclusion list (UBC calendar)

#### 2. EARTH AND ENVIRONMENTAL SCIENCES (EES) CMS PKG COURSES:

Earth and Environmental Science courses 300- or 400-level: ATSC, ENVR, GEOB (except: GEOB 307, 407), EOSC (except: 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. PHYSICS (PHYS) CMS PKG COURSES:

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

#### 4. 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)

## 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
- 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 CHEM 200 or higher (except: CHEM 300), or BIOL 121, 343, 345, 346, 438

#### 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, 112 , 120, 121; SCIE 113 (recommended);				
CHEM 300; APSC 176; ASTU 100, 150; or WRDS				6
150(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