

New program: BSc Climate Sciences

The University of Victoria will be launching a new BSc Climate Science in the 2023/24 academic year, as a Combined Program between the School of Earth and Ocean Sciences and the Department of Geography. The program will be listed in the May 2023 Calendar.

This document is to provide advanced information about program to prospective students, especially those already at UVic who may want to transfer into the program. If you need specific advice about your situation information, you can contact the Academic Advising Centre (<https://www.uvic.ca/services/advising/>) or the Unit Academic Advisor in the School of Earth and Ocean Sciences (seosadvisor@uvic.ca) or Department of Geography (geogadvising@uvic.ca).

The program has two streams, Physical Climate Science and Impacts, Adaptation and Mitigation. Students must select one of these streams, in addition to completing the core program requirements.

The program is accredited by the United Nations Institute for Training and Research (UNITAR).

Program requirements: Core requirements

Year 1

- Complete all of the following
 - Complete all of:
 - BIOL184 - Evolution and Biodiversity (1.5)
 - CHEM101 - Fundamentals of Chemistry from Atoms to Materials (1.5)
 - CHEM102 - Chemical Reactivity Fundamentals with Environmental Applications (1.5)
 - MATH100 - Calculus I (1.5)
 - MATH101 - Calculus II (1.5)
 - PHYS110 - Introductory Physics I (1.5)
 - PHYS111 - Introductory Physics II (1.5)
 - Complete 1 of:
 - EOS110 - Oceans and Atmosphere (1.5)
 - EOS130 - Climate Change (1.5)
 - GEOG130 - Climate Change (1.5)
 - GEOG103 - Introduction to Physical Geography (1.5)
 - Complete 3 units of electives

Year 2

- Complete all of the following
 - Complete 1 of:
 - EOS220 - Weather and Climate (1.5)

- GEOG220 - Weather and Climate (1.5)
- Complete 1 of:
 - EOS230 - Scientific Computing and Environmental Data Analysis (1.5)
 - GEOG230 - Scientific Computing and Environmental Data Analysis (1.5)
- Complete all of:
 - GEOG209 - Introduction to Environmental Management (1.5)
 - GEOG272 - Introduction to Climatology and Hydrology (1.5)
- Complete 6 units of:
Year 2 stream requirements (see below)
- Complete 3 units of electives

Years 3 and 4

- Complete all of the following
 - Complete 18 units of:
Year 3 and 4 stream requirements (see below)
 - Complete 12 units of electives

Physical Climate Sciences Stream

Year 2

- Complete all of the following
 - Complete all of:
 - EOS261 - The Climate System (1.5)
 - MATH200 - Calculus III (1.5)
 - MATH204 - Calculus IV (1.5)
 - Complete 1 of:
 - PHYS317 - Thermodynamics (1.5)
 - CHEM245 - Introduction to Thermodynamics (1.5)

Years 3 and 4

- Complete all of the following
 - Complete all of:
 - EOS325 - Earth System Modelling (1.5)*
 - EOS340 - Atmospheric Physics (1.5)
 - EOS365 - Climate and Society (1.5)
 - EOS433 - The Physics of Climate (1.5)
 - GEOG370 - Hydrology (1.5)
 - GEOG489 - Climate Solutions (1.5)
 - Complete 2 of:
 - GEOG313 - Field Studies in Mountain Meteorology (1.5)
 - GEOG373 - Applied Climatology (1.5)
 - GEOG405 - Dynamics of the Cryosphere (1.5)
 - GEOG484 - Advanced Topics in Weather and Climate (1.5)
 - Complete 1 course(s) from:
300- or 400-level GEOG or 300 or 400-level EOS
 - **Oceanography**
 - Complete 2 of the following

- Complete all of:
 - EOS312 - Introductory Chemical Oceanography (1.5)
- Complete all of:
 - EOS401 - Oceanographic Field School (1.5)
- Complete 1 of:
 - EOS314 - Descriptive Physical Oceanography (1.5)
 - EOS431 - Physical Oceanography (1.5)
- Students taking the Minor in Ocean Sciences may replace this requirement with two courses from Impacts, Adaptations and Mitigation elective group.

Impacts, Adaptations and Mitigation electives

- Complete 1 of:
 - ADMN311 - Introduction to Public Administration (1.5)
 - ADMN316 - Public Sector Communications (1.5)
 - ADMN420 - The Public Policy Process (1.5)
 - ANTH302 - Globalization, Health, and the Environment (1.5)
 - CIVE315 - Environmental Policy (1.0)
 - CIVE411 - Resilient Smart Cities (1.5)
 - ECON383 - Climate Economics (1.5)
 - ES301 - Political Ecology (1.5)
 - ES314 - Philosophy and the Environment (1.5)
 - ES405 - Climate, Energy and Politics (1.5)
 - GEOG301 - Environmental Impact Assessment (1.5)
 - GEOG314 - Global Environment Change and Human Response (1.5)
 - GEOG323 - Cartography (1.5)
 - GEOG328 - GIS Analysis (1.5)
 - GEOG371 - Water Resources Management (1.5)
 - GEOG450 - Environment and Sustainability in Practice (1.5)
 - HDCC300 - Climate Change for Social Transformation (1.5)
 - HDCC390 - Special Topics in the Human Dimensions of Climate Change (1.5)
 - PHIL333 - Philosophy and the Environment (1.5)
 - POLI350 - Introduction to Public Administration (1.5)
 - POLI351 - Public Policy Analysis (1.5)
 - POLI357 - Canadian Environmental Politics (1.5)
 - STAT359 - Data Analysis (1.5)

Impacts, Adaptations and Mitigations Stream

Year 2

- Complete all of the following
 - Complete all of:
 - GEOG222 - Introduction to Maps and GIS (1.5)
 - GEOG228 - Introduction to Remote Sensing (1.5)
 - STAT260 - Introduction to Probability and Statistics I (1.5)
 - Complete 1 of:
 - CIVE210 - Sustainability in Civil Engineering (1.5)
 - ES200 - Introduction to Environmental Studies (1.5)
 - HDCC200 - Introduction to Human Dimensions of Climate Change (1.5)

Years 3 and 4

- Complete all of the following

- Complete 1 of:
 - EOS365 - Climate and Society (1.5)
 - GEOG314 - Global Environment Change and Human Response (1.5)
- Complete all of:
 - GEOG301 - Environmental Impact Assessment (1.5)
 - GEOG328 - GIS Analysis (1.5)
 - GEOG370 - Hydrology (1.5)
 - GEOG371 - Water Resources Management (1.5)
 - GEOG373 - Applied Climatology (1.5)
 - GEOG489 - Climate Solutions (1.5)
 - STAT359 - Data Analysis (1.5)
 - GEOG323 - Cartography (1.5)
 - GEOG450 - Environment and Sustainability in Practice (1.5)
- Complete 1 of:**
 - ANTH302 - Globalization, Health, and the Environment (1.5)
 - ADMN311 - Introduction to Public Administration (1.5)
 - ADMN316 - Public Sector Communications (1.5)
 - ADMN420 - The Public Policy Process (1.5)
 - CIVE315 - Environmental Policy (1.0)
 - CIVE411 - Resilient Smart Cities (1.5)
 - ECON383 - Climate Economics (1.5)
 - ES301 - Political Ecology (1.5)
 - ES314 - Philosophy and the Environment (1.5)
 - ES405 - Climate, Energy and Politics (1.5)
 - HDCC300 - Climate Change for Social Transformation (1.5)
 - HDCC390 - Special Topics in the Human Dimensions of Climate Change (1.5)
 - PHIL333 - Philosophy and the Environment (1.5)
 - POLI350 - Introduction to Public Administration (1.5)

Physical Climate Science electives

- Complete 1.5 units from:
 - EOS312 - Introductory Chemical Oceanography (1.5)
 - EOS314 - Descriptive Physical Oceanography (1.5)
 - GEOG313 - Field Studies in Mountain Meteorology (1.5)
 - GEOG484 - Advanced Topics in Weather and Climate (1.5)
 - GEOG405 - Dynamics of the Cryosphere (1.5)

* Appears as EOS 225 in May 2023 Calendar, but will change to EOS 325 in September 2023 Calendar.

** This is listed as “*Complete 2 of*” in May 2023 Calendar, but will change to “*Complete 1 of*” in September 2023 Calendar.