

# UNIVERSITY STUDIES | ASSOCIATE OF SCIENCE ENVIRONMENTAL GEOSCIENCE SPECIALIZATION

**In 2021/2022 sections may offered in-person or via Distributed Learning. Learn more about** Distributed Learning (<https://can01.safelinks.protection.outlook.com?url=https%3A%2F%2Fwww.coastmountaincollege.ca%2Fprograms%2Fdiscover%2Fdistributed-learning&data=04%7C01%7CESuderman%40coastmountaincollege.ca%7C71d435c61acc486e4bf608d9247112d4%7C455d8376ff8b4f7fbf3a0b460a00e158%7C0%7C0%7C637580890324238390%7CUnknown%7CTWFpbGZsb3d8eyJWljiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTil6Ik1haWw%3D&reserved=0>) **at CMTN. Individual sections may vary, please contact info@coastmountaincollege.ca if you have any questions.**

The Environmental Geoscience program provides a balance of theoretical and applied course work designed to challenge students to think critically, analyze problems, and seek resolutions; strengthen communication skills; and deliver a range of other employable skills. Environmental Geoscience students will enhance their theoretical learning with applied skills in scientific communication, environmental analysis, and biogeography. In addition, students have the opportunity to take a wide variety of field school courses within the program that provide a range of experiences and training in a field environment.

The Environmental Geoscience program aligns with CMTN's institutional priorities, including the college's Strategic Plan and the three core values of CMTN: Adventurous, Transformative and Integrity.

## ADVENTUROUS

We explore and take calculated risks to engage in learning. We are innovative in finding new ways to move courses into the field. We explore adventurous career paths with our students. We seek to discover new ways to apply pedagogy to our teaching processes. We are actively engaged in finding unique ways to partner in our field-based research. We take advantage of our geography and climate in order to provide field-based education to all learners.

## TRANSFORMATIVE

We enrich lives through learning. We include experiential learning in our program renewal. In addition, we transform our learning spaces to respond to an ever-changing educational landscape. We help others improve their lives, families and communities through education. We also help others in the communities we serve, to seek new career opportunities to improve their lives. We recognize how many of our alumni have transformed their lives through education. We take education to our communities when we

engage in field-based pedagogy research. We embed our curriculum in a cultural context relating to the rich First Nations cultural diversity of our region.

## INTEGRITY

We are respectful, transparent and accountable to our learners. Our faculty live by example and we conduct ourselves in an ethical manner. We communicate with clarity so everyone can understand our intent. We promote the concept of sustainability where social, environmental, and economic values must all be considered.

## Apply to CMTN

Visit Apply to CMTN (<https://www.coastmountaincollege.ca/admissions/apply-to-cmtn/>) for an Admissions Checklist and to apply online.

Our Educational Advisors (<https://www.coastmountaincollege.ca/student-services/student-support/educational-advising/>) are here to help if you have any questions or need guidance along the way.

## Dates and locations

**International students interested in taking University Credits Science options are encouraged to apply to the fall intake.**

Intake	Location
September and January	Prince Rupert Campus and Terrace Campus

Field School (<https://coastmountaincollege.ca/programs/explore/field-schools/>) courses available in the spring and summer.

Study on a full or part-time basis. Some courses are available online (<https://coastmountaincollege.ca/programs/programs/>) and by teleconference.

Note: not all courses are offered at every campus. Speak with an Educational Advisor (<https://coastmountaincollege.ca/advisors/>) for assistance with course selection.

## Faculty

Faculty Member	Campus Location
Gordon Weary ( <a href="https://coastmountaincollege.ca/about-cmtn/department-contacts/details/gordon-weary/">https://coastmountaincollege.ca/about-cmtn/department-contacts/details/gordon-weary/</a> )	Terrace Campus
Matthew Beedle ( <a href="https://coastmountaincollege.ca/about-cmtn/department-contacts/details/matthew-beedle/">https://coastmountaincollege.ca/about-cmtn/department-contacts/details/matthew-beedle/</a> )	Terrace Campus

The Environmental Geoscience Specialization encompasses a broad range of disciplines that allow students to develop an understanding of Earth's related natural systems and processes. Graduates will be well versed in atmospheric, biological, geographical, hydrological, ecological, and geological studies and may go on to complete degrees in subject areas



related to environmental sciences, earth sciences, geography, or biology. Alternatively, students may choose to directly enter the workforce in a variety of fields, such as environmental consulting, mining, mineral exploration, fisheries, wildlife and land management, climate modelling or green energy production. Fieldwork and field-based methods are an integral part of this Associate Degree. For more information please contact the Program Coordinator, Gordon Weary (<https://coastmountaincollege.ca/about-cmntn/department-contacts/faculty/>).

This credential also provides you with the first two years required for a B.Sc (Integrated) degree (<http://unbc.ca/calendar/undergraduate/bsc-integrated/>) at the Terrace Campus of the University of Northern BC.

This program is designed specifically to provide CMTN Environmental Geoscience students with a full Bachelor of Science degree in two more years with an emphasis on aquatic sciences and environmental remediation.

This program has also been designed to facilitate maximum transferability to other institutions within BC and North America. Most of the courses listed below can also be applied towards the Professional Geoscientist (P.Geo) designation with the Association of Professional Engineers and Geoscientists of BC (<https://www.egbc.ca/>).

**In order to obtain an Associate of Science - Environmental Geosciences Degree students must first complete the courses below.**

Year One		Credits
BIOL 101	Introductory Biology I - Cells, Diversity & Physiology	3
BIOL 102	Introductory Biology II - Genetics, Evolution & Ecology	3
CPSC 111	Introduction to Computer Science	3
or		
MATH 115	Precalculus	
ENGL 101	Introduction to Composition	3
ENGL 102	Introduction to Literature	3
or		
ENGL 151	Technical Writing I	
GEOG 110	People and the Environment	3
GEOG 150	Physical Geog I: Biogeography, Meteorology and Climatology	3
GEOG 160	Physical Geography II: Geology, Geomorphology and Soils	3
or		
GEOL 157	Intro to Northwest Geology	
GEOG 203	Geomorphology	3
or		
OCCY 208	Intro Physical, Chemical and Geological Oceanography	
GEOG 207	Hydrology/Soils	3
or		
OCCY 209	Introduction to Biological Oceanography	
<b>Credits</b>		<b>30</b>

**Year Two**

BIOL 201	Invertebrate Zoology	3
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BIOL 202	Vertebrate Zoology	
or		
BIOL 208	The Biology of Plants	
or		
BIOL 235	Ichthyology	
BIOL 211	Principles of Ecology	3
or		
GEOG 202	Geography of Ecosystems	
GEOG 201	Environmental Climatology	3
or		
GEOG 210	Environments and Society	
GEOG 202	Geography of Ecosystems	3
or		
GEOG 204	Spatial Analysis and Geographic Information Systems (GIS)	
MATH 101	Calculus I: Differential Calculus <sup>1</sup>	3
or		
MATH 141	Calculus I for Social Sciences	3
MATH 131	Introduction to Statistics	3
Two of the Following:		6
CHEM 111	Fundamentals of Chemistry I	
CHEM 122	Principles of Chemistry II	
MATH 102	Calculus II: Integral Calculus	
PHYS 101	Introduction to Physics I	
PHYS 121	Advanced Physics I	
PHYS 102	Introductory Physics II	
PHYS 122	Advanced Physics II	
Any 2 ( 3 Credit Arts Course ) Field School Courses Recommended		6
<b>Credits</b>		<b>33</b>
<b>Total Credits</b>		<b>63</b>

1. Apply (<https://apply.educationplannerbc.ca/cmntn/>) directly to the Associate of Science - Environmental Geoscience Specialization Program
2. Submit proof of English Studies 12 or English First People's 12 or equivalent
3. Once admitted, register in the courses required for this specialization

Course prerequisites include:

- Life sciences 11 or equivalent
- Chemistry 11 or equivalent
- Pre-calculus 11 or equivalent

The prerequisites for individual courses are outlined in the course descriptions. Students missing prerequisites may enroll in Career & College Preparation (CCP) (<https://coastmountaincollege.ca/programs/discover/upgrading/>) upgrading courses while completing the program.

English proficiency is required for all students entering CMTN programs. Please visit our English Language Alternatives (<https://coastmountaincollege.ca/admissions/requirements/language->



requirements/domestic-english-language-requirements/) page to see how this requirement can be met.

Need help with the application process? Contact an Educational Advisor (<https://coastmountaincollege.ca/student-services/academic-support/educational-advising/>).

Fees	Domestic	International
Full-time	30 Credits	30 Credits
Tuition	\$2,964.90	\$12,602.10
Mandatory fees	\$226.50	\$274.44
Lab fees (16.49 per credit) <sup>1</sup>	\$49.47	\$49.47
Student Union fees <sup>2</sup>	\$83.98	\$83.98
Health and Dental Insurance <sup>4,5</sup>	\$250	\$548.75
<b>Total Tuition:</b>	<b>\$3,575.15</b>	<b>\$13,558.74</b>
Books & supplies <sup>2</sup>	\$2,000.00	\$2,000.00
Field School fees <sup>3</sup>	\$900.00	\$900.00
<b>Total:</b>	<b>\$6,475.15</b>	<b>\$16,458.74</b>

**Tuition and fees effective August 1, 2021 for the 2021/22 Academic Year.**

<sup>1</sup>Lab fees are mandatory. All associate degrees require a minimum of 3 credits in laboratory science, and students may take up to 42 lab credits.

<sup>2</sup>Costs are approximate and may vary depending on courses taken. Student union fees are term based.

<sup>3</sup>Field schools have additional costs between \$100 - \$900 per field school, depending on the location and the activities. Field schools are not a mandatory component of all associate degrees, however, students are strongly encouraged to attend a field school during the spring/summer semester. Associate Degrees specializing in Environmental Geoscience are encouraged to attend a minimum of two field schools. Field schools are subject to different deposit requirements and refund rules.

<sup>4</sup>The Coast Mountain Students Union (CMSU) is pleased to announce that Extended Health and Dental Insurance has been approved by student referendum held in March 2021. Additional information will be provided by CMSU July 2021, including details of the coverage and directions for the opt out process for students with equivalent coverage. For any inquiries about the plan or referendum, please contact Golnoosh Namazi, [organiser@mycmsu.ca](mailto:organiser@mycmsu.ca)

<sup>5</sup>Basic Health insurance is mandatory for all international students. Health insurance costs will be charged every term until students provide proof of MSP.

### Career opportunities

The Environmental Geosciences encompasses a broad range of disciplines that allow students to develop an understanding of Earth's related natural systems and processes. Students graduating in the Environmental

Geosciences will be well versed in atmospheric, hydrological, ecological and geological studies.

Students who obtain this associate degree may go on to complete a specific degree in Environmental Science, Geography, Geology, or Biology, or may find employment in a variety of fields including:

- Mineral and Resource Exploration
- Parks and Recreation Planning
- Fish, Wildlife and Freshwater Management
- Forestry
- Climate Modeling
- Geotechnical Surveying
- Community Planning
- Conventional and Alternative Energy Projects
- Any other profession that requires an individual with a knowledge of Earth and Earth's processes

