

# APPLIED COASTAL ECOLOGY (ACE) POST-DEGREE DIPLOMA

View on YouTube (<https://www.youtube.com/watch?v=ufaA3tsp9RE>)

## Earn a Post-Degree Diploma in 1 year

The Applied Coastal Ecology (ACE) program readies students for careers in coastal natural resources management, ecosystem restoration, environmental monitoring, and many others. ACE balances foundational learning in areas such as biology, geography, chemistry and oceanography with applied courses in areas such as salmon, ground fish and shellfish management, stream habitat restoration, rainforest ecology, wildlife management, and more.

ACE students get important technology training in computer database management, GIS mapping, surveying, technical writing, and presentation. Students participate in real-world, community-based projects to gain employment-ready experience and ultimately gain a strong sense of how coastal ecosystems react to the stresses imposed on them by human activity, and how to apply procedures to mitigate impacts and restore healthy ecosystems.

## ACE field studies

At Coast Mountain College we are always exploring new ways to move our courses into the field. Our rugged geography and variable climates enhance our classrooms. Learn about our collaborative field day on Digby Island, view samples of our project work and check out the Applied Coastal Ecology photo gallery.

Applied Coastal Ecology field studies (<https://www.coastmountaincollege.ca/programs/study/science/ace-field-studies/>)

## 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

Intake	Location
Fall 2024	Prince Rupert

Study on a full or part-time basis. Some courses are available online and by video conference.

Note: not all courses are offered at every campus. Speak with an Educational Advisor (<https://coastmountaincollege.ca/student-services/academic-support/educational-advising/>) for assistance with course selection.

The ACE Post Degree Diploma requires the completion of a total of **30 credits** according to the categories shown below. Students will select courses from the suggested list below depending on scheduling and the student's area of specialization. Contact the ACE Program Coordinator ([kshaw@coastmountaincollege.ca](mailto:kshaw@coastmountaincollege.ca)) or an Educational Advisor (<https://coastmountaincollege.ca/student-services/academic-support/educational-advising/>) to develop your personalized study program.

**ACE Program Questions?** Email us ([info@coastmountaincollege.ca](mailto:info@coastmountaincollege.ca))

## ACE Post-Degree Diploma Requirements

The ACE Post-Degree Diploma requires the completion of a total of **30 credits** according to the categories shown below. Students will select courses from the suggested list below depending on scheduling and the student's area of specialization. Contact the ACE Program Coordinator ([kshaw@coastmountaincollege.ca](mailto:kshaw@coastmountaincollege.ca)) or an Educational Advisor (<https://coastmountaincollege.ca/student-services/academic-support/educational-advising/>) to develop your personalized study program.

Code	Title	Credits
12 Credits CMTN 2nd year Science and Geography Course		12
OCGY 208	Intro Physical, Chemical and Geological Oceanography	
OCGY 209	Introduction to Biological Oceanography	
BIOL 201	Invertebrate Zoology	
BIOL 202	Vertebrate Zoology	
BIOL 203	Non-Vascular Plants & Fungi	
BIOL 208	The Biology of Plants	
BIOL 211	Principles of Ecology	
GEOG 201	Environmental Climatology	
GEOG 202	Geography of Ecosystems	
GEOG 203	Geomorphology	
GEOG 207	Hydrology and Soils	
GEOG 210	Environments and Society	
GEOG 215	Geography of Food	
3 Credits in GIS		
GEOG 204	Spatial Analysis and Geographic Information Systems (GIS)	3
12 Credits ACE		12
ACE 101	Applied Service Learning	
ACE 134	Fishes of the Pacific Northwest Rearing	
ACE 141	Monitoring & Measuring Aquatic and Intertidal Zone Habitats	
ACE 142	Coastal Forest Measurements	
ACE 154	Surveying	
ACE 175	Wildlife Conservation & Monitoring Population Management	
ACE 182	Stream Habitat Assessment & Restoration	
ACE 190	Temperate Rainforest Ecology	
ACE 197	Environmental Monitoring Techniques	



3 Credits ACE or other CMTN course	3
SUST 120 Permaculture Design	
<b>Total Credits</b>	<b>30</b>

Please contact the ACE Program Coordinator (kshaw@cmtn.bc.ca) to work out details and timing of your specific program of studies.

In order to meet the changing demands of the industry, the ACE program periodically makes small course modifications and adjustments to the timing of course offerings.

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/>).

## ACE Post-Degree Diploma

Students holding a B.Sc degree ; or a B.A. in Environmental Studies from an accredited post-secondary institution

Grade 12 English Studies, Grade 12 English First Peoples or equivalent

The B.Sc degree or the B.A. in Environmental Studies must include 6 credits of University Biology.

Students can complete the Post-Degree Diploma in 1 year.

Fees	Domestic	International
Full Time:	30 credits	30 credits
Tuition:	\$3,146.70	\$13,373.40
Student Union Fees	\$109.28	\$109.28
Mandatory Fees (includes 24 credits of required lab fees):	\$660.00	\$710.88
Health Insurance*	\$285.00	\$604.02
Tuition and Mandatory Fees Total:	\$4,200.98	\$14,795.60
Books:	\$800.00	\$800.00
Tools/ Equipment/ Supplies:	\$600.00	\$600.00
Field School Fees (Cost will vary depending)	\$1,000.00	\$1,000.00
Estimated Program Cost	\$6,600.98	\$17,195.60

**Fees are effective as of August 1, 2024 for the 2024/25 Academic Year.**

The Coast Mountain Students Union (CMSU) is pleased to offer Extended Health and Dental Insurance to all qualifying members. The plan is mandatory for all students enrolled in 6 or more credits or a trades program of 26 weeks or longer. Some students, including those studying

overseas and those with existing extended health coverage, are eligible to opt out. Visit <https://cmsu.studenthealthbc.ca/> to learn more about the plan or request to opt out. You will also receive a detailed introductory email no later than 6 weeks after your semester starts. For any inquiries about the plan, please contact the Students' Union Organiser : Golnoosh Namazi, [organiser@mycmsu.ca](mailto:organiser@mycmsu.ca)

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

## University transfer agreements

### Start here, finish anywhere!

ACE Diploma graduates are able to move onto University Degree completion with a number of transfer pathways. The majority of courses within the program transfer directly to colleges and universities in British Columbia through the BC Transfer System. The ACE program also has a number of specific transfer agreements with institutions that facilitate a seamless transfer between programs.

Explore our pathways to degree completion:

### BC Transfer System

The BC Transfer Guide (<http://www.bctransferguide.ca/>) is the main resource to look up the transfer of courses between institutions within the province.

### Royal Roads Transfer Agreement

Transfer direct into the third-year of a Royal Road's Bachelor of Science degree (<https://www.coastmountaincollege.ca/programs/explore/degree-partnerships/transfer-agreements/royal-roads-bachelor-of-science-in-env-science-or-env-management/>) and graduate with a degree in Environmental Science or Environmental Management.

### UBC Transfer Agreement

Transfer directly into the third-year of UBC's Natural Resources Conservation Bachelor of Science (BSc) (<https://www.coastmountaincollege.ca/programs/explore/degree-partnerships/transfer-agreements/ubc-bachelor-of-science-in-natural-resources-conservation/>) and major in Science and Management or Global Perspectives.

In addition to these pathways, more general agreements exist for degree completion within Canada and internationally. Prospective and current students should check out the Degree Partnership (<https://www.coastmountaincollege.ca/programs/explore/degree-partnerships/>) page for more specific details and consult with the ACE Program Coordinator (kshaw@cmtn.bc.ca) in planning their program.

## Career opportunities

Students gain the knowledge and practical skills to acquire employment with a large variety of employers including, Environmental Organizations, Federal Government (i.e. Fisheries and Oceans Canada and others), Provincial Government, Environmental Consulting Firms, First Nations Governments, Government Funded Programs, Mariculture and Forestry Industries, Eco-tourism, and International Development projects.



**Example jobs:**

- DFO Stock Assessment Technician
- Nisgaa Fisheries Management
- Northcoast Skeena First Nations Stewardship Society Creel Survey
- Oona River Fish Hatchery
- Archipelago Marine Research
- Babine Lake Stock Assessment
- Assistant Forester
- SFU Fisheries Environmental Toxicology Lab

**Program graduates**

The ACE program was first initiated in 1996, under the name Coastal Integrated Resources Management (CIRM). It was created in response to growing demands from employers for locally trained experts in the environmental field. In the fall of 2005, the program was expanded and renamed Applied Coastal Ecology to better reflect the new program model.

The ACE program has attracted students from as far away as Japan and Africa, as well as a host of Canadian cities and provinces spanning from coast to coast. A significant portion of our enrolment comes from outside of Prince Rupert.

ACE graduates are generally well-known for their passion and commitment to the environment and the sustainable management of the great wealth of natural resources found in coastal ecosystems across the planet.

**Employment & career prospects**

Graduates have had exceptional professional and academic opportunities.

- 100% of graduates have found meaningful employment or have gone on to further their education following completion of the program
- 83% of graduates who found employment did so in a field related to their studies

We find our graduates engaged in employment across a wide range of related fields:

**Consultant Firms:**

- Archipelago Marine
- J.O. Thomas and Associates
- Oona River Resources Association
- Triumph Timber
- First Nations
- Self-employed contracting

Consulting firms generally look for employees that have both the foundational academic training needed to solve problems, as well as the practical hands-on skills needed to carry out consulting contracts in both field and office settings. Many consulting firms have stated that they prefer to hire graduates who possess hands-on experience/skills as well as the necessary academic training. The ACE program has deliberately included a well-integrated mix of both academic and hands-on courses

which together create a balance and prepare graduates to be effective and efficient and hit the ground running.

**Government:**

- Fisheries and Oceans Canada
- Ministry of Air, Land and Water
- First Nations governments
- Local municipal governments
- Teaching institutions

The ACE program utilizes various government agencies. Government representatives are used as guest lecturers and also serve as expert advisors on the program's advisory committee. The committee has representation from several levels of government - from local to federal. This ensures the program's curriculum remains up to date with governmental policies and procedures and makes ACE grads an attractive prospect to these agencies.

**Private Industry:**

- Technologists and biologists at mariculture operations ranging from Marine Harvest Canada to smaller-scale private operations
- BC Hydro and any other organization that requires environmental monitoring as part of their business
- Wildlife protection and fish-stream enhancement offices
- Non-governmental environmental organizations such as World Wildlife Fund, T Buck Suzuki Foundation, and EcoTrust Canada
- Guiding or working as wildlife interpreters for eco-tourism operations
- Various forestry operations
- Laboratory technicians
- A variety of international placements

The growth of coastal ecology-related opportunities with private industry has experienced a significant increase in recent years. Graduates have done exceptionally well in these settings, and in some cases make up the bulk of the technical expertise for such employers.