

# ENVIRONMENTAL ENGINEERING MINOR (B.ENG.) (21 CREDITS)

**Offered by:** Civil Engineering (Faculty of Engineering)

**Degree:** Bachelor of Engineering

**Program credit weight:** 21

## Program Description

The Minor program is designed to focus on the principles of environmental engineering in all engineering disciplines providing a specialization at the undergraduate level.

The Environmental Engineering Minor is offered by the Department of Civil Engineering for all students in Engineering and in the Department of Bioresource Engineering wishing to pursue studies in this area.

Note: Not all courses listed are offered every year. Students should see the "Courses" section of this Course Catalogue to know if a course is offered.

A maximum of 12 credits of coursework in the student's major may be double-counted with the Minor.

**Note:** For information about Fall 2025 and Winter 2026 course offerings, please check back on May 8, 2025. Until then, the "Terms offered" field will appear blank for most courses while the class schedule is being finalized.

## Complementary Courses (21-22 credits)

3-4 credits from the following list:

Expand allContract all

Course	Title	Credits
BREE 327	Bio-Environmental Engineering.	3
CIVE 225	Environmental Engineering.	4

18 credits from Stream A or Stream B:

### Stream A

15 credits from the Engineering Course List and 3 credits from the Non-Engineering Course List below

<sup>1</sup> A minimum of 6 credits must be from outside the student's department. A maximum of 6 credits of research project courses may be counted toward this category, provided the project has sufficient environmental engineering content (project requires approval of project supervisor and coordinator of the Minor).

### Stream B

9 credits of courses specified from the "Barbados Interdisciplinary Tropical Studies (BITS)" field semester below, provided the project has sufficient environmental engineering content (project requires approval of the Coordinator of the Minor):

Expand allContract all

Course	Title	Credits
AEBI 425	Tropical Energy and Food.	3
AEBI 427	Barbados Interdisciplinary Project.	6

9 credits chosen from the Engineering Course List below, excluding CHEE 496 Environmental Research Project..

## Engineering Course List

Courses offered at the MacDonald campus:

Expand allContract all

Course	Title	Credits
BREE 217	Hydrology and Water Resources.	3
BREE 322	Organic Waste Management. <sup>1</sup>	3
BREE 416	Engineering for Land Development.	3
BREE 518	Ecological Engineering.	3
BREE 533	Water Quality Management.	3

<sup>1</sup> Not open to students who have passed CIVE 323 Hydrology and Water Resources..

Courses offered at the Downtown campus:

Expand allContract all

Course	Title	Credits
ARCH 377	Energy, Environment, and Buildings 1.	3
ARCH 515	Sustainable Design.	3
CHEE 351	Separation Processes.	3
CHEE 370	Elements of Biotechnology.	3
CHEE 496	Environmental Research Project.	3
CHEE 591	Environmental Bioremediation.	3
CHEE 593	Industrial Water Pollution Control.	3
CIVE 225	Environmental Engineering.	4
CIVE 323	Hydrology and Water Resources. <sup>1</sup>	3
CIVE 421	Municipal Systems.	3
CIVE 428	Water Resources and Hydraulic Engineering.	3
CIVE 430	Water Treatment and Pollution Control.	3
CIVE 520	Groundwater Hydrology.	3
CIVE 550	Water Resources Management.	3
CIVE 555	Environmental Data Analysis.	3
CIVE 557	Microbiology for Environmental Engineering.	3
CIVE 561	Greenhouse Gas Emissions.	3
CIVE 572	Computational Hydraulics.	3
CIVE 573	Hydraulic Structures.	3
CIVE 574	Fluid Mechanics of Water Pollution.	3
CIVE 577	River Engineering.	3
CIVE 584	Mechanics of Groundwater Flow.	3
MECH 447	Combustion.	3
MECH 534	Air Pollution Engineering.	3
MECH 535	Turbomachinery and Propulsion.	3

MECH 560	Eco-design and Product Life Cycle Assessment .	3	GEOG 321	Climatic Environments.	3
MIME 422	Mine Ventilation.	3	GEOG 404	Environmental Management 2.	3
MIME 428	Environmental Mining Engineering.	3	MIMM 211	Introductory Microbiology.	3
MIME 512	Corrosion and Degradation of Materials.	3			
MIME 556	Sustainable Materials Processing.	3			
MPMC 328	Environnement et gestion des rejets miniers.	3			
SEAD 515	Climate Change Adaptation and Engineering Infrastructure .	3			
SEAD 520	Life Cycle-Based Environmental Footprinting .	3			
SEAD 550	Decision-Making for Sustainability in Engineering and Design.	3			
URBP 506	Environmental Policy and Planning.	3			

<sup>1</sup> Not open to students who have passed BREE 217 Hydrology and Water Resources..

## Non-Engineering Course List

Courses offered at the MacDonald campus:

Expand allContract all

Course	Title	Credits
ENVB 210	The Biophysical Environment.	3
LSCI 230	Introductory Microbiology. <sup>1</sup>	3
MICR 331	Microbial Ecology.	3
MICR 341	Mechanisms of Pathogenicity.	3
RELG 270	Religious Ethics and the Environment.	3
SOIL 331	Environmental Soil Physics.	3

<sup>1</sup> Not open to students who have passedCHEE 370 Elements of Biotechnology..

Courses offered at the Downtown campus:

Expand allContract all

Course	Title	Credits
ANTH 206	Environment and Culture.	3
BIOL 205	Functional Biology of Plants and Animals.	3
BIOL 432	Limnology.	3
CMPL 580	Environment and the Law.	3
ECON 225	Economics of the Environment.	3
ECON 326	Ecological Economics.	3
ECON 347	Economics of Climate Change.	3
EPSC 549	Hydrogeology.	3
GEOG 200	Geographical Perspectives: World Environmental Problems.	3
GEOG 201	Introductory Geo-Information Science.	3
GEOG 203	Environmental Systems.	3
GEOG 205	Global Change: Past, Present and Future.	3
GEOG 302	Environmental Management 1.	3
GEOG 308	Remote Sensing for Earth Observation.	3