BREE 533. WATER QUALITY MANAGEMENT.

Credits: 3

Offered by: Bioresource Engineering (Faculty of Agric Environ Sci)

Terms offered: Fall 2026

View offerings for Fall 2026 (https://vsb.mcgill.ca/vsb/criteria.jsp?term=202609&courses=BREE-533) in Visual Schedule Builder.

Description

The water phases of terrestrial ecological systems and the processes that link them. Physical, chemical, and biological properties of water, and water quality standards. The fate and transport of pollutants in rivers and streams, lakes, and wetlands. Methods to quantify soil carbon and nitrogen cycle to predict nutrient leaching. Impacts of human activities (e.g., agricultural drainage) on water quality and measures to improve drainage water quality. Assess the effectiveness of proposed engineering measures or management practices in improving or maintaining water quality of a real site/water body using numerical methods or a computer modelling approach.

- Restriction: Not open to students who have taken BREE 625 (formerly ABEN 625).
- Management of water quality for sustainability. Cause of soil degradation, surface and groundwater contamination by agricultural chemicals and toxic pollutants. Screening and mechanistic models. Human health and safety concerns. Water table management. Soil and water conservation techniques will be examined with an emphasis on methods of prediction and best management practices.
- This course carries an additional charge of $61.80 to cover the cost of transportation with respect to a field trip. The fee is refundable only during the withdrawal with full refund period.

Most students use Visual Schedule Builder (VSB) to organize their schedules. VSB helps you plan class schedules, travel time, and more.

Launch Visual Schedule Builder (https://vsb.mcgill.ca/vsb/criteria.jsp)