Environmental Specialization

There are numerous environmental issues faced by society. The environmental specialization provides engineers with the knowledge to predict environmental impacts due to human developments and to solve problems associated with the environment (soil contamination, pollution of rivers and lakes, air pollution, wastewater treatment).

Students who obtain a grade of “C” or better in the courses listed below will receive a notation of “environmental specialization” on their transcript at the time of graduation.

**Group A: Science Electives** (2 courses to complete)
*Must complete the following course:*
SOIL 4060 Physical Properties of Soil
*and*
*Must choose one of the following courses:*
AGEC 2370 Principles of Ecology
BIOL 2300 Principles of Ecology

**Group B: Biosystems Engineering Design Electives** (choose 3 from the list)
BIOE 4412 Design of Light-Frame Building Systems
BIOE 4460 Air Pollution Assessment and Management
BIOE 4590 Management of By-Products from Animal Production
BIOE 4600 Design of Water Management Systems
BIOE 4620 Remediation Engineering

**Group C: Complementary Studies** (choose 1 from the list)
ABIZ 2390 Introduction to Environmental Economics (or equivalent)
ENVR 1000 Environmental Science 1 – Concepts
ENVR 2000 Environmental Science 2 - Issues
ENVR 2270 Environmental Problem Solving and Scientific Thinking
ENVR 3160 Environmental Responsibilities and the Law
ENVR 3400 Introduction to Environment and Health
ENVR 3750 Green Building and Planning
ENVR 3850 Sustainable Manitoba
ENVR 4050 Ecosystem Management
ENVR 4400 Advanced Issues in Environment and Health
GEOG 2520 Geography of Natural Resources
PHIL 2750 Environmental Ethics

**Group D: Free Electives** (choose 2 from the list)
*(Note: additional courses from Group B or C can be used to fulfill Group D electives.)*
AGEC 2370 Principles of Ecology (or equivalent)
CIVL 3690 Environmental Engineering Analysis
CIVL 3700 Environmental Engineering Design
CIVL 4350 Hazardous Waste Treatment
ENVR 2550 Environmental Chemistry
ENVR 3110 Environmental Conservation and Restoration
GEOG 3730 Geographic Information Systems

Note: Special permission may be granted by the Head of Department for courses not appearing on the list for Group C or Group D.