

**GEOGRAPHY 368/PLANNING 341
Winter Term 2017**

CONSERVATION & RESOURCE MANAGEMENT OF THE BUILT ENVIRONMENT

LECTURE: 10:00 – 11:20 AM Wed & Fri OPT 347

INSTRUCTOR: Dr. M. Stone

OFFICE HOURS: EV1 Rm. 112, Thurs 9:30 – 11:00 AM

COURSE CONTENT AND ORGANIZATION

The objective of this course is to provide a practical understanding of basic biophysical processes operating within the built environment and to understand their relationship to the planning and management of urban environments and associated landscape resources. Specifically, the course addresses the following five questions:

1. How do natural landscapes (ecosystems) function?
2. What are the essential physical and biogeochemical processes for healthy ecosystems?
3. How does landscape change (i.e. agriculture, urbanization, resource extraction, natural disturbance) alter the rate and magnitudes of these processes?
4. What are the environmental impacts of landscape change?
5. What are the planning/management/engineering opportunities to maintain important environmental resources?

TEXTBOOK

Marsh, W.M. (2010) Landscape Planning, Environmental Applications. 5th Edition, John Wiley & Sons.

STUDENT EVALUATION

Two Quizzes @ 30% each	60%
Final Exam	40%
Total	100%

COURSE OUTLINE:

4-Jan	Course Introduction (Ch 1)
6-Jan	Landscape Form, Function and Change (Ch 2, 3)
11-Jan	Watersheds, Ecosystem Management and Cumulative Effects (Ch 9)
13-Jan	Topography, Slopes and Land Use Planning (Ch 4)
18-Jan	Film - The Underlying Threat
20-Jan	Soil, Land Use and Waste Disposal (Ch 5, 6)

25-Jan	Groundwater Systems, Land Use Planning, and Aquifer Protection (Ch 7)
27-Jan	Runoff and Stormwater Management in a Changing Landscape (Ch 8)
1-Feb	Quiz 1
3-Feb	Hydrologic Cycle and Water Balance (Ch 9)
8-Feb	Film - Rivers of Destiny
10-Feb	Streamflow, Floodplains, Flood Hazard, and Land Use Planning (Ch10)
15-Feb	Water Quality and Runoff Considerations in Landscape Management (Ch 11)
17-Feb	Soil Erosion, Land Use and Stream Sedimentation (Ch12)
20-Feb	Reading week - no classes
1-Mar	Streams, Channel Forms and the Riparian Landscape (Ch 14)
3-Mar	Stream response to land disturbance
8-Mar	Wetlands, Habitat, and Land Use Planning (Ch 21)
10-Mar	Best Management Practices (Ch 13)
15-Mar	Quiz 2
17-Mar	The Coastal Landscape: Shoreline Systems, Landforms, and Management Considerations (Ch 15)
21-Mar	Radiation Balance, solar heating and landscapes (Ch 16)
22-Mar	Microclimate, Climate Change and Urban Landscapes (Ch17)
24-Mar	Ground frost, permafrost and Landuse (Ch 18)
29-Mar	Framing the Land Use Plan: a Systems Approach (Ch 22)
31-Mar	Course Review

Important Information

1. Login info for students:

Users can login to LEARN via:

<http://learn.uwaterloo.ca/>

use your WatIAM/Quest username and password

2. When are my courses activated and disabled for the term?

By default, courses that use LEARN are activated the first day of classes for the term in which they are being taught. Courses from the previous term are disabled on that day as well (e.g. courses from Fall 2010).

Students will have access to this course until the first day of class of the Spring Term (May 1, 2012).

3. Student Add/Drops

Student Add/Drops are processed daily using data from the Registrar's Office. If a student adds a course via Quest, it could take up to 24-48 hours to be processed and added to LEARN. If paper forms are signed, it could take longer.

Additional Information

Academic Integrity: To create and promote a culture of academic integrity, the behaviour of all members of the University of Waterloo is based on honesty, trust, fairness, respect and responsibility.

Grievance: A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70 - Student Petitions and Grievances, Section 4, <http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm>

Discipline: A student is expected to know what constitutes academic integrity, to avoid committing academic offenses, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offense, or who needs help in learning how to avoid offenses (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to Policy 71 - Student Discipline, <http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm>

Appeals: A student may appeal the finding and/or penalty in a decision made under Policy 70 - Student Petitions and Grievances (other than regarding a petition) or Policy 71 - Student Discipline if a ground for an appeal can be established. Read Policy 72 - Student Appeals, <http://secretariat.uwaterloo.ca/Policies/policy72.htm>