# Course Outline: Fall 2017

## General Information

**Course Code: ENVS3080**

**Course Title: Soil and Water Conservation**

**Course Description:**

|  |  |
| --- | --- |
| **This course examines the processes leading to deterioration of soil and water quality, the impact of deterioration on use, and preventative or corrective measures: soil erosion by water and wind, soil compaction and salinization, drainage channel maintenance, sedimentation and nutrient enrichment of water, conservation programs and policies, and reclamation of severely disturbed soils and saline-sodic soils. Emphasis will be on concepts and solutions to problems in a systems approach.** | |
| ***Offering(s):*** | **Offered through Distance Education format only.** |
| ***Prerequisite(s):*** | **1 of**[**AGR\*2320**](https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c12/c12agr.shtml#AGR2320)**,**[**ENVS\*2060**](https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c12/c12envs.shtml#ENVS2060)**,**[**SOIL\*2010**](https://www.uoguelph.ca/registrar/calendars/undergraduate/current/includes/discontinued.shtml) |
| ***Equate(s):*** | [**SOIL\*3080**](https://www.uoguelph.ca/registrar/calendars/undergraduate/current/includes/discontinued.shtml) |

**Credit Weight: 0.50**

**Academic Department (or campus): School of Environmental Sciences**

**Campus: Guelph**

**Semester Offering: Fall 2017**

**Class Schedule and Location: NA**

## Instructor Information

Instructor Name: C. FitzGibbon

Instructor Email: cfitzgib@uoguelph.ca

Instructor Phone and Extension: 519-824-4120 X54802

Office location and office hours: Alexander Hall Rm 205 or Landscape Architecture Rm 103b

## GTA Information

GTA Name: TBA

GTA Email:

GTA office location and office hours:

## Course Content

### Specific Learning Outcomes:

By the end of this course, you should be able to:

1. Identify, describe and explain the processes and factors that contribute to deterioration of soil and water quality;
2. Recognize and understand the nature and range of corrective and management approaches and policies in use today and identify the most appropriate solutions for a particular situation;
3. Analyze field soil deterioration and erosion conditions;
4. Recommend and suggest appropriate management options to protect from soil erosion and deterioration; and
5. Recognize and understand appropriate mitigation for soil salinization and to restore extremely disturbed soil.

### Lecture Content:

This course is conducted entirely online and thus has no lectures of labs. The course is divided into 10 units as follows:

Unit 01: Introduction

Unit 02: Erosion Processes

Unit 03: Measuring and Modelling

Unit 04: RUSLEFAC

Unit 05: Preventive and Corrective Measures – Biological, Tillage and Cropping

Unit 06: Preventive and Corrective Measures – Buffer Strips

Unit 07: Preventive and Corrective Measures – Surface Drainage and Erosion Control Structures

Unit 08: Preventive Measures for Wind Erosion and Best Management Practices for Overall Erosion Control

Unit 09: Restoration of Degraded Soils and Saline/Sodic Soils

Unit 10: Restoration of Areas of Extreme Disturbance

For each unit, students will work through a set of guided readings from the textbook and other sources where appropriate. This will assist students in preparing notes, identifying key points and relationships and summarizing the required scientific and technical soil conservation knowledge for the course. Together, the text and the reading assignments will lead students to an understanding of soil and water conservation.

Students will gain practical experience in analyzing data, assessing existing situations and recommending appropriate conservation management plans through completion of a practical field case study and also through the use of conservation scenarios.

### Labs: NA

### Seminars: NA

### Course Assignments and Tests:

| **Assignment or Test** | **Due Date** | **Contribution to Final Mark (%)** | **Learning Outcomes Assessed** |
| --- | --- | --- | --- |
| Online Multiple Choice Quiz 1 | Thur/Fri Week 3 | 5 % | 1,2,3 |
| Short Written Paper 1 | Mon Week 5 | 10% | 1,2,3 |
| Online Multiple Choice Quiz 2 | Thur/Fri Week 7 | 5% | 1,2,3 |
| Short Written Paper 2 | Mon Week 9 | 10% | 1,2,3 |
| RUSLEFAC assignment | Mon Week 10 | 25% | 1,2,3,4 |
| Final Exam | Fri Dec 8 8:30 – 10:30 | 45% | 1,2,3,4,5 |

Additional Notes (if required):

### Final examination date and time: Friday Dec 8, 2017, 8:30 – 10:30

### Final exam weighting: 45%

## Course Resources

### Required Texts:

**Title:** Principles of Soil Conservation and Management

**Author(s):** Humberto-Canqui Blanco and Rattan Lal

**Edition / Year:** 2008

**Publisher:** Springer

**ISBN:** 978-9048185290 (Print) or 978-1402087097 (Online)

**Note:** The online version of this textbook is available online through the University of Guelph Library at no charge.

### Recommended Texts:

### Lab Manual: NA

### Other Resources: as indicated on the course website

### Field Trips: NA

### Additional Costs: NA

## Course Policies

### Grading Policies:

A late penalty of 10% per day will be applied unless an extension has been granted by the instructor. Extensions will be considered for medical reasons or other extenuating circumstances. If you require an extension, discuss this with the instructor as soon as possible. Barring exceptional circumstances, extensions will not be granted once the due date has passed. These rules are not designed to be arbitrary, nor are they inflexible. They are designed to keep you organized, to ensure that all students have the same amount of time to work on assignments, and to help to return marked materials to you in the shortest possible time.

### Course Policy on Group Work:

### Course Policy regarding use of electronic devices and recording of lectures:

## University Policies

### Academic Consideration:

The University of Guelph is committed to supporting students in their learning experiences and responding to their individual needs and is aware that a variety of situations or events beyond the student's control may affect academic performance. Support is provided to accommodate academic needs in the face of personal difficulties or unforeseen events in the form of Academic Consideration.

Information on regulations and procedures for Academic Consideration, Appeals and Petitions, including categories, grounds, timelines and appeals can be found in [Section VIII (Undergraduate Degree Regulations and Procedures) of the Undergraduate Calendar](https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml).

### Academic Misconduct:

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community, faculty, staff, and students to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring.

University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection. Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

Detailed information regarding the Academic Misconduct policy is available in [Section VIII (Undergraduate Degree Regulations and Procedures) of the Undergraduate Calendar](https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml).

### Accessibility:

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact the Student Accessibility Services (SAS), formerly Centre for Students with Disabilities (CSD), as soon as possible.

For more information, contact SAS at 519-824-4120 ext. 56208 or email sas@uoguelph.ca or visit the [Student Accessibility Services website (http://www.uoguelph.ca/csd/)](http://www.uoguelph.ca/csd/).

### Course Evaluation Information:

End of semester course and instructor evaluations provide students the opportunity to have their comments and opinions used as an important component in the Faculty Tenure and Promotion process, and as valuable feedback to help instructors enhance the quality of their teaching effectiveness and course delivery.

While many course evaluations are conducted in class others are now conducted online. Please refer to the [Course and Instructor Evaluation Website](https://courseeval.uoguelph.ca/) **for more information.**

### Drop period:

The drop period for single semester courses starts at the beginning of the add period and extends to the Fortieth (40th) class day of the current semester (the last date to drop a single semester courses without academic penalty) which is listed in [Section III (Schedule of Dates) of the Undergraduate Calendar](https://www.uoguelph.ca/registrar/calendars/).

The drop period for two semester courses starts at the beginning of the add period in the first semester and extends to the last day of the add period in the second semester.

Information about Dropping Courses can be found in [Section VIII (Undergraduate Degree Regulations and Procedures) of the Undergraduate Calendar](https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml).

## Additional Course Information