# Course Outline Form: Fall 2015

## General Information

**Course Title:** Introduction to Environmental Sciences ENVS\*1030

**Course Description:** This course introduces students to what it means to think critically from an environmental sciences perspective. It covers an introduction to: philosophy of science, philosophy of the environment, the evaluation of scientific evidence, and scientific arguments. The course focuses on how we understand and recognize environmental problems, how we decide what to do about them, and what role science can and should play in these discussions.

**Credit Weight:** 1.00

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

**Campus:** Guelph

**Semester Offering:** F

**Class Schedule and Location:** Lecture - Mon, Weds, Fri 3:30pm-4:20pm RICH 2520

 Lab section 1: Thurs 8:30am-11:20am MCKN 304

 Lab section 2: Tues 2:30pm-5:20pm MCKN 305

 Lab section 3: Tues 8:30am-11:20am, MCKN 316

 Lab section 4: Tues 11:30am-2:20pm, MCKN 306

 Lab section 5: Thurs 2:30pm-5:20pm, MCKN 314

 Lab section 6: Tues 2:30pm-5:20pm MCKN 306

## Instructor Information

Instructor Name: Dr. Neil Rooney and Dr. Shelley Hunt

Instructor Email: nrooney@uoguelph.ca and shunt@uoguelph.ca

Office location and office hours: Dr. Rooney – Rm. 2107 E.C. Bovey Building

 Dr. Hunt - Rm. 220 Alexander Hall

 Office Hours by appointment.

## GTA Information

GTA Name:

GTA Email:

GTA office location and office hours:

Lab Co-ordinator: Dr. Kim Bolton

Lab Co-ordinator Email: kbolton@uoguelph.ca

Lab Co-ordinator office location and office hours:

## Course Content

### Specific Learning Outcomes:

Students will ***begin to develop*** their understanding of:

* what it means to think critically from an environmental perspective (LO1);
* what science is and is not (LO2);
* what is the nature of scientific evidence (LO3);
* what role science does or ought to play in the development of policy (LO4);
* whether environmental issues are ethical issues (LO5);
* how to engage critically and in a scholarly manner, in public arguments about the environment (LO6);
* experimental design and the practice of science (LO7).

In the process we will address a number of the University’s Learning Objectives (see the Undergraduate Calendar), especially ***literacy* (ULO1)**, ***independent thought* (ULO9)**, and ***moral maturity* (ULO5)**.

### Lecture Content:

Approximate schedule of lecture topics:

|  |  |  |
| --- | --- | --- |
| **From** | **To** | **Lecture Topic** |
| 14 September | 25 September | Experiment design |
| 28 September | 9 October | How science is done |
| 12 October | 23 October | Philosophy of science |
| 26 October | 6 November | Environmental ethics |
| 9 November | 20 November | Case studies |
| 23 November | 27 November | Poster presentations |
| 30 November | 4 December | Course wrap-up |

### Labs:

Approximate schedule of lab topics:

|  |  |
| --- | --- |
| **Week of** | **Topic** |
| 14 September | No lab |
| 21 September | Experiment design 2 |
| 28 September | Experiment design presentation |
| 5 October | Experiment set-up |
| 26 October | Wind Power Problem Introduction |
| 2 November | Poster workshop and drop-in |
| 9 November | Experiment completion  |
| 16 November | Wind Power Hearings |

### Seminars:

None.

### Course Assignments and Tests:

| **Assignment or Test** | **Due Date** | **Contribution to Final Mark (%)** | **Learning Outcomes Assessed** |
| --- | --- | --- | --- |
| Experimental Design Presentation | In lab, week of Sept. 28th  | 4 | LO7 |
| Essay #1 | Friday, October 9th  | 8 | LO1, LO2, LO3, LO6, ULO1, ULO9 |
| Midterm exam | Wednesday, October 21st in class | 20 | LO1, LO2, LO3, ULO1, ULO9 |
| Essay #2 | Friday, November 13th  | 8 | LO1, LO4, LO6, ULO1 ULO9 |
| Wind Power Problem presentation | In lab, week of Nov. 16th  | 10 | LO1, LO3, LO4, LO5, LO6, ULO1, ULO5, ULO9 |
| Poster paper | Nov. 23th, 25th or 27th (depending on your group’s assigned date) | 14 | LO1, LO3, LO7, ULO1, ULO9 |
| Peer review of posters | Nov. 23th, 25th or 27th (depending on your group’s assigned date) | 3 | LO1, LO3, ULO1, ULO9 |
| Essay #3 | Friday, December 4th  | 8 | LO1, LO5, LO6, ULO1, ULO5, ULO9 |
| Final exam | Friday, December 18th, 2:30pm-4:30pm | 25 | LO1, LO2, LO3, LO4, LO5, LO6, ULO1, ULO5, ULO9 |

Additional Notes (if required):

None.

### Final examination date and time:

Friday, December 18th, 2:30pm-4:30pm

### Final exam weighting:

25%

## Course Resources

### Required Texts:

* Schick Jr., T. & L. Vaughn. 2011. *How to Think About Weird Things: Critical Thinking for a New Age*, 6th or 7th Edition. McGraw Hill.
* OUP Course Package (includes):
	+ Weston, A. & B. Stoyles. 2010. *Creativity for Critical Thinkers*. Oxford University Press.
	+ Northey, M. et al. 2012. *Making Sense in Geography and Environmental Sciences, 5th Edition.* Oxford University Press.
	+ Williston, B. 2012. *Environmental Ethics for Canadians*. Oxford University Press.
	+ Ruxton, G.D. & N. Colegrave. 2006. *Experimental Design for the Life Sciences*. Oxford University Press.

### Recommended Texts:

None.

### Lab Manual:

None.

### Other Resources:

Lecture notes and other course materials will be available via D2L.

### Field Trips:

None.

### Additional Costs:

None.

## Course Policies

### Grading Policies:

Written assignments will be submitted via Dropbox on D2L, before midnight on the due date. Oral presentations and poster assignments will be due during the appropriate lab period or otherwise as assigned. All late assignments will receive a 10% deduction for each day, or part thereof, that they are late. See Dr. Bolton if you wish to request an extension. Keep paper and/or reliable electronic back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

### Course Policy on Group Work:

You are authorized to work as a group only for the lab assignments (Wind Power Problem and the plant growth experiment/poster assignment).

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

Electronic recording of classes is expressly forbidden without consent of the instructor. When recordings are permitted they are solely for the use of the authorized student and may not be reproduced, or transmitted to others, without the express written consent of the instructor.

## 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/).

## Additional Course Information

None.