# Course Outline Form: Fall 2016

## 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 ROZH 103

Lab section 1: Thursdays 8:30 to 11:20 AM MINS 101

Lab section 2: Tuesdays 2:30 to 5:20 PM CRSC 403

Lab section 3: Tuesdays 8:30 to 11:20 AM MINS 128

Lab section 4: Tuesdays 11:30 AM to 2:20 PM MCKN 313

Lab section 5: Thursdays 2:30 to 5:20 PM MACS 301

Lab section 6: Tuesdays 2:30 to 5:20 PM MACS 301

Lab section 7: Fridays 8:30 to 11:20 PM MINS 128

## Instructor Information

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

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

Office location and office hours: Dr. Hunt - Rm. 220 Alexander Hall

Office Hours: T, Th 2:00pm-3:30pm

Dr. Rooney – Rm. 2107 E.C. Bovey Building

Office Hours by appointment.

## GTA Information

TA Name: Nichelle Lomas

GTA Email: nlomas@uoguelph.ca

GTA Name: Justin Vanslingerland

GTA Email: jvanslin@uoguelph.ca

GTA Name: Andrea Roebuck

GTA Email: aroebuck@uoguelph.ca

GTA Name: Kimberly Zupfer

GTA Email: kzupfer@uoguelph.ca

GTA office hours: By appointment

Lab Co-ordinator: Dr. Kim Bolton

Lab Co-ordinator Email: kbolton@uoguelph.ca

Lab Co-ordinator office location and office hours:

Rm. 2446, Summerlee Science Complex

Office Hours by appointment

## 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** |
| 12 September | 23 September | Experiment design |
| 26 September | 7 October | How science is done |
| 12 October | 21 October | Philosophy of science |
| 24 October | 4 November | Environmental ethics |
| 7 November | 25 November | Case studies and guest lectures |
| 28 November | 2 December | Course wrap-up |

### Labs:

Approximate schedule of lab topics:

|  |  |
| --- | --- |
| **Week of** | **Topic** |
| 12 September | No lab |
| 19 September | Experiment design (Assignment introduction) |
| 26 September | Experiment design presentation |
| 3 October | Experiment set-up |
| 10 October | No lab |
| 17 October | No lab |
| 24 October | Mock Hearing Assignment Introduction & Poster Workshop |
| 31 October | No lab |
| 7 November | Experiment Completion |
| 14 November | Mock Hearings |
| 21 November | Experiment Poster Presentations |

### 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. 26th | 5 | LO7 |
| Essay #1 | Friday, October 7th | 10 | LO1, LO2, LO3, LO6, ULO1, ULO9 |
| Midterm exam | Friday, October 21st in class | 20 | LO1, LO2, LO3, ULO1, ULO9 |
| Essay #2 | Friday, November 11th | 10 | LO1, LO4, LO6, ULO1 ULO9 |
| Mock Hearing presentation | In lab, week of November 14th | 10 | LO1, LO3, LO4, LO5, LO6, ULO1, ULO5, ULO9 |
| Poster paper | In lab, week of November 21rd | 15 | LO1, LO3, LO7, ULO1, ULO9 |
| Peer review | Friday, December 2nd | 5 | LO1, LO3, ULO1, ULO9 |
| Final exam | Monday, December 5th, 7:00-9:00pm | 25 | LO1, LO2, LO3, LO4, LO5, LO6, ULO1, ULO5, ULO9 |

Additional Notes (if required):

None.

### Final examination date and time:

### Monday, December 5th, 7:00-9:00pm

### 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. *Creativity for Critical Thinkers*. Oxford University Press.
  + Williston, B. *Environmental Ethics for Canadians*. 2nd edition. Oxford University Press.
  + Ruxton, G.D. & N. Colegrave. *Experimental Design for the Life Sciences*. 3rd edition. Oxford University Press.

## Course Resources (continued)

### Recommended Texts:

None.

### Lab Manual:

None.

### Other Resources:

**Top Hat**

We will be using the Top Hat ([www.tophat.com](http://t.yesware.com/tt/29bd862d00778ce7c84f157a74306813268718d3/66af4ca6833f5657573301f78b0a0288/a0546ae907b8eb7aed38100b9baa289c/www.tophat.com/)) classroom response system in class. You will be able to submit answers to in-class questions using Apple or Android smartphones and tablets, laptops, or through text message.

You can visit the Top Hat Overview ([https://success.tophat.com/s/article/Student-Top-Hat-Overview-and-Getting-Started-Guide](https://t.yesware.com/tt/29bd862d00778ce7c84f157a74306813268718d3/66af4ca6833f5657573301f78b0a0288/c67e457497282900d0b3fbb8f1ae92ac/success.tophat.com/s/article/Student-Top-Hat-Overview-and-Getting-Started-Guide)) within the Top Hat Success Center which outlines how you will register for a Top Hat account, as well as providing a brief overview to get you up and running on the system.

An invitation will be sent to you by email, but if you don’t receive this email, you can register by simply visiting our course website: [**https://app.tophat.com/e/206011**](https://t.yesware.com/tt/8978c54925750359e3df6300a9712d49fcc7983b/71c66dd5514005a1d2e93c78c011a45c/c8e2acb98dad59137c8a2d10aa49a18b/app.tophat.com/e/206011)  
Note: our Course Join Code is **206011**

Top Hat will require a paid subscription. A full breakdown of all subscription options available can be found here: [www.tophat.com/pricing](http://t.yesware.com/tt/29bd862d00778ce7c84f157a74306813268718d3/66af4ca6833f5657573301f78b0a0288/6b17d0cacd9b8669e549098c875bd264/www.tophat.com/pricing).

Should you require assistance with Top Hat at any time, due to the fact that they require specific user information to troubleshoot these issues, please contact their Support Team directly by way of email ( [support@tophat.com](mailto:support@tophat.com)), the in app support button, or by calling [1-888-663-5491](tel:1-888-663-5491).

**Courselink**

Course materials will also be available on Courselink.

### 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.