# Course Outline Form: Fall 2015

## General Information

**Course Title:** ENVS\*3040 Natural Chemicals in the Environment

**Course Description:** This course explores the roles of naturally occurring chemicals in the inter-relationships of organisms, and the historical and current uses of natural chemicals by humans for agricultural and medicinal purposes.

**Credit Weight:** 0.5

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

**Campus:** Distance Education

**Semester Offering:** Fall 2015

**Class Schedule and Location:** DE

## Instructor Information

Instructor Name: Dr. Simone Härri

Instructor Email: shaerri@uoguelph.ca

Office location and office hours: Bovey 2216. Office hours by appointments only.

## GTA Information

GTA Name: TBD

GTA Email:

GTA office location and office hours:

## Course Content

### Specific Learning Outcomes:

1. Recognize and explain the ecological roles of natural chemicals.
2. Describe and assess the application of natural chemicals in agriculture and medicine.
3. Explain the pharmacological basis of the effects of certain natural chemicals.
4. Analyse and debate issues concerning the use of natural chemicals.
5. Construct arguments relating natural chemicals to conservation issues.

### Lecture Content:

*Unit 01: Chemicals in the Natural World*

This unit will introduce the terms and concepts important to the field of chemical ecology. In this unit, we will investigate the ways in which chemicals are used by plants, insects, and animals for finding food or mates and for defense. This unit will take three weeks to complete.

*Unit 02: Agricultural Uses of Natural Chemicals*

This unit will examine the ways in which insect pheromones, plant defense compounds, and microbial toxins have been used in agriculture for pest management. This unit will take four weeks to complete.

*Unit 03: Clinical Uses of Natural Chemicals*

This unit will examine the history of herbal medicine and the development of drugs important to contemporary medicine that are derived from plant, microbial, or marine compounds. This unit will take three weeks to complete.

*Unit 04: From Forest to Pharmacy*

In this unit, we will examine the future of natural chemicals for human use, and we will look at the importance of habitat preservation and conservation of biodiversity and indigenous knowledge in light of our reliance on natural chemicals. This unit will take two weeks to complete.

### Labs:

N/A

### Seminars:

N/A

### Course Assignments and Tests:

| **Assignment or Test** | **Due Date** | **Contribution to Final Mark (%)** | **Learning Outcomes Assessed** |
| --- | --- | --- | --- |
| Literature assignment | October 4, 2015 | 5% | 1, 2 |
| Group debate Unit 2 | *Initial position paper:* September 20, 2015  *Debate paper:*  November 8, 2015 | 14% | 1, 2, 4 |
| Group debate Unit 3 | *Initial position paper:* September 20, 2015  *Debate paper:*  December 4, 2015 | 14% | 2, 3, 4, 5 |
| Q & A Assignment Unit 1 | October 11, 2015 | 9% | 1 |
| Q & A Assignment Unit 2 | November 1, 2015 | 9% | 2 |
| Q & A Assignment Unit 3 | November 29, 2015 | 9% | 3 |
| Final exam | December 18, 2015, 19:00 – 21:00 | 40% | 1, 2, 3, 4, 5 |

Dropbox submission time is **before 23:59** the day of the due date.

Additional Notes (if required):

N/A

### Final examination date and time: December 18, 2015, 19:00 – 21:00

### Final exam weighting: 40%

## Course Resources

### Required Texts:

Each unit consists of several required readings all from different sources. You will find links to all the readings on CourseLink in the eReserve section.

### Recommended Texts:

N/A

### Lab Manual:

N/A

### Other Resources:

N/A

### Field Trips:

N/A

### Additional Costs:

N/A

## Course Policies

### Grading Policies:

Assignments are to be submitted online via Dropbox before midnight (by 23:59) on the due date. Assignments handed-in late, for which an extension has not been granted ahead of time, will lose 10% of the total marks for every day (or part thereof) that it is late. If you require an extension on an assignment, you must have a valid reason and contact Dr. Härri (shaerri@uoguelph.ca) in advance of the due date.

### Course Policy on Group Work:

This course encourages group work and collaborative problem solving. The “Literature Assignments” and the “Q & A assignments” should be written entirely by the student alone, should reflect the opinion of the student alone and should be the original work of the student. For the “Group debates”, the completed assignment should contain only work which has been produced by members of the group in question.

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

N/A

## 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/).