



# ENVS\*3040 Natural Chemicals in the Environment

Fall 2022

Section: DE 01

School of Environmental Sciences

Credit Weight: 0.50

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## Course Details

### Calendar 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.

**Pre-Requisite(s):** BIOL\*1040 or (2 of BIOL\*1050, BIOL\*1070, BIOL\*1080, BIOL\*1090)

**Co-Requisite(s):** None

**Equate(s):** ENVB\*3040

**Restriction(s):** None

**Method of Delivery:** Online

**Note:** For more information about how to effectively study and learn via a self-directed, instructor-facilitated Distance Education course, see **Start Here** on the course site, and the Open Ed resource [About Distance Education - UofG OpenEd \(uoguelph.ca\)](https://uoguelph.ca/about-distance-education)

### Final Exam

#### Take-Home Final Exam

**Date released:** Friday, December 2, 2022 via E-mail

**Due Date and Time:** Monday, December 12, 2022 by 11:59pm ET

**Location:** Take-home final exam to be submitted via the **Dropbox** tool in CourseLink

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# Instructional Support

## Instructor

**Dr. Simone Härrri (she/her)**

**Email:** [shaerri@uoguelph.ca](mailto:shaerri@uoguelph.ca)

I completed my PhD with a focus on community ecology in 2007 at the Institute of Environmental Sciences at the University of Zürich in Switzerland. After my PhD, I moved to Guelph and started working as a post-doctoral fellow in the lab of Dr. Jonathan Newman in the School of Environmental Sciences here at the University of Guelph. My research focused primarily on the ecological and evolutionary consequences of microbes in food webs. Some of my later work also contains aspects of climate change, i.e., effects of climate change on microbe-plant-herbivore interactions.

Over the past several years, my main interest has shifted from research to teaching. I have been teaching several different ENVS courses over the last decade. I thoroughly enjoy teaching and interacting with my students. My goal is for you to engage with the material and remember the most important aspects for a long time. And at the same time, I hope to transfer some of my passion about environmental science onto you, and I am always striving to further your critical thinking skills.

**Office Hours via Zoom:** Please contact your instructor Dr. Härrri to set up a meeting time. See also **Communicating with Your Instructor**.

## Teaching Assistant(s)

**Name:**

**Email:**

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# Learning Resources

## Required Textbook

There is no required textbook.

## Course Website

[CourseLink](#) (powered by D2L's Brightspace) is the course website and will act as your classroom. It is recommended that you log in to your course website every day to check for announcements, access course materials, and review the weekly schedule and assignment requirements.

<https://courselink.uoguelph.ca/shared/login/login.html>

## Ares

For this course, you may be required to access course reserve materials through the University of Guelph McLaughlin Library. To access these items, select **Ares** on the navbar in CourseLink. Note that you will need your Central Login ID and password in order to access items on reserve.

For further instructions on accessing reserve resources, visit [How to Get Course Reserve Materials](#).

If at any point during the course you have difficulty accessing reserve materials, please contact the e-Learning Operations and Reserve Services staff at:

Tel: 519-824-4120 ext. 53621

Email: [libres2@uoguelph.ca](mailto:libres2@uoguelph.ca)

Location: McLaughlin Library, First Floor, University of Guelph

<https://www.lib.uoguelph.ca/find/course-reserves-ares>

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## Learning Outcomes

### Course Learning Outcomes

Welcome to Natural Chemicals in the Environment!

Most chemicals in nature exist for purposes of communication, attraction, and defense. We will explore the ecological relationships between organisms and the ways in which they use chemicals in their lives -- to attract mates, to ward off enemies and to protect themselves from predators. In some cases, these compounds have found application in pest and wildlife management or the modification of human behaviour. Most organisms also produce a diversity of defensive compounds to ward off or poison predators and parasites. These toxins act on a variety of physiological targets and many have been used by humans for medicinal or religious purposes. We will look at how we have come to use these chemicals for our own purposes -- such as the development of medicines, and the protection of agricultural crops. The course will conclude with a discussion of the importance of maintaining indigenous knowledge and natural ecosystems that may serve as reservoirs of important undiscovered compounds.

We hope that this course will help you to develop an appreciation for the diversity of chemicals found in nature and their functions.

The main objectives of this course are to help you to:

1. Become familiar with the field of chemical ecology;
2. Recognize the origin of the many chemicals that you use in your daily lives;
3. Recognize how and why natural chemicals have come to play important roles in human life; and
4. Develop critical thinking and analytical skills.

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

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. Analyze and debate issues concerning the use of natural chemicals; and
5. Construct arguments relating natural chemicals to conservation issues.

In addition, the following skills will be developed or enhanced:

1. Conducting a search of the scientific literature;
2. Summarizing a piece of scientific research or body of knowledge;
3. Creating higher order questions by synthesizing content from each unit knowledge and providing constructive feedback to your peers;
4. Following proper formatting and styles for citing scientific literature; and
5. Development of a logical argument based on scientific evidence.

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## Teaching and Learning Activities

### Course Structure

There are four units in this course, each with additional sections. Each unit begins with an overview before the section content and concludes with a summary and checklist.

- Unit 01: Chemicals in the Natural World
  - Unit 01 Overview
  - Section 01: Introduction to Chemical Ecology
  - Section 02: Communication with Pheromones
  - Section 03: Allelochemicals
  - Unit 01 Conclusion
- Unit 02: Agricultural Uses of Natural Chemicals
  - Unit 02 Overview
  - Section 01: Introduction to the Application of Semiochemicals
  - Section 02: Natural Source Insecticides
  - Section 03: Issues Associated with Natural Chemicals in Agriculture
  - Unit 02 Conclusion
- Unit 03: Clinical Uses of Natural Chemicals
  - Unit 03 Overview

- Section 01: Herbalism and the History of Medicine
- Section 02: Opium and Analgesia
- Section 03: Environmentally Sustainable Production of Plant-Derived Medicines
- Unit 03 Conclusion
- Unit 04: From Forest to Pharmacy
  - Unit 04 Overview
  - Section 01: Conservation of Healing Knowledge
  - Section 02: Conservation of Biodiversity and Ecosystems
  - Unit 04 Conclusion

## What to Expect in this Course

This is a distance education (DE) course which means there is material presented on the course website (written and video) rather than formal lectures. It also means you can read and engage on your own terms and on your own time.

Follow the **Schedule** in this course outline: it is a vital resource for you, and you should refer to it regularly. Each week, you are expected to read a set of unit materials and the required weekly readings.

Review the schedule in full in the first week of the course. Make note of all assessment due dates and enter these dates into a calendar of some sort. To succeed in this sort of course it is important to stay organized and keep track of upcoming due dates. The schedule (below) is your guide.

There is flexibility regarding the days and times that you work on each unit, but **to succeed in the course** you do need to keep up to date with each week's material. The University of Guelph's Academic Calendar suggests that students should spend 10-12 hours per week on studying for every 0.50 credit course.

You are responsible for reading in full the weekly reading list and making note of the most important/visible themes, concepts, and arguments from these readings—applying them to examples highlighted in the units *but also* to examples you have located yourself. This requires more than memorization: the course as a whole will encourage you to think actively and critically.

Be sure to check the **Announcements** area on the front page of the course site each week for important updates/course news.

## Schedule

### UNIT 01: CHEMICALS IN THE NATURAL WORLD

#### Section 01: Introduction to Chemical Ecology

**Week 1 - Thursday, September 8 to Sunday, September 18**

#### Readings

- Website: Unit 01 Overview and Section 01 content
- Ares:
  - Grasswitz, T. R. & Jones, G. R. (2002). Chemical Ecology. *Encyclopedia of Life Science*.
  - Wyatt, T. (2003). Chapter 1. Animals in a chemical world. pp. 1-22. In *Pheromones and Animal Behaviour*.

## Activities

- Familiarize yourself with the course website by reviewing the **Start Here** section of the course.
- Review the **Outline** and **Assessments** sections on the course website to learn about course expectations, assessments, and due dates.
- Confirm your access to the course reserve materials by selecting **Ares** on the navbar.

## Assessments

- **Initial Position Statements for Group Debates**  
Due: Sunday, September 18 by 11:59 pm ET
- **Unit 01 Section 01 Quiz** (accessed through the **Quizzes** tool)  
Opens: Thursday, September 8 at 12:01 am ET  
Closes: Sunday, September 18 by 11:59 pm ET

## Section 02: Communications with Pheromones

### Week 2 - Monday, September 19 to Sunday, September 25

#### Readings

- Website: Unit 01 Section 02 content
- Ares:
  - Wyatt, T. (2009). Fifty Years of Pheromones. *Nature*. 457:262-263.
  - Wyatt, T. (2003). Chapter 2. Discovering pheromones. pp. 23-36. In *Pheromones and Animal Behaviour*.
  - Wyatt, T. (2003). Appendix A1. An introduction to pheromones for non-chemists. pp. 302-303. In *Pheromones and Animal Behaviour*.
  - Wyatt, T. (2003). Appendix A2. Isomers and Pheromones. pp. 304-308. In *Pheromones and Animal Behaviour*.
  - Wertheim et al. (2005). Pheromone-mediated aggregation in nonsocial arthropods. *Annual Review of Entomology*, 50:321-346.

## Assessments

- **Literature Assignment**  
Due: Sunday, September 25 by 11:59 pm ET
- **Unit 01 Section 02 Quiz** (accessed through the **Quizzes** tool)  
Opens: Monday, September 19 at 12:01 am ET  
Closes: Sunday, September 25 by 11:59 pm ET

### Section 03: Allelochemicals

#### Week 3 – Monday, September 26 to Sunday, October 2

##### Readings

- Website: Unit 01 Section 03 and Conclusion content
- Ares:
  - Dicke, M. (2000). Chemical ecology of host-plant selection by herbivorous arthropods: a multitrophic perspective. *Biochemical Systematics and Ecology*, 28: 601-617.
  - Wink, M. (2001). Secondary Metabolites: Deterring Herbivores. *Encyclopedia of Life Sciences*.
  - Hylwka, J. J., Stephenson, G. R., Sears, M. K., & Yada, R. Y. (1994). Effects of insect damage on glycoalkaloid content in potatoes (*Solanum tuberosum*). *Journal of Agricultural and Food Chemistry*, 42:2545-2550.
  - Whitney, H. M. & Glover, B. J. (2007). Coevolution: Plant-Insect. *Encyclopedia of Life Sciences*.

##### Assessments

- **Unit 01 Section 03 Quiz** (accessed through the **Quizzes** tool)  
Opens: Monday, September 26 at 12:01 am ET  
Closes: Sunday, October 2 by 11:59 pm ET
- **Unit 01 Quiz** (accessed through the **Quizzes** tool)  
Opens: Monday, September 8 at 12:01 am ET  
Closes: Sunday, October 2 by 11:59 pm ET

### UNIT 02: AGRICULTURAL USES OF NATURAL CHEMICALS

#### Section 01: Introduction to the Application of Semiochemicals

#### Week 4 – Monday, October 3 to Sunday, October 9

##### Readings

- Website: Unit 02 Overview and Section 01 content
- Ares:
  - Wyatt, T. (2003). Chapter 12. Using pheromones: applications. pp. 251-269. In *Pheromones and Animal Behaviour*.

- Hallett, R.H., Oehlschlager, A. C, & Borden, J. H. (1999). Pheromone trapping protocols for the Asian palm weevil, *Rhynchophorus ferrugineus* (Coleoptera: Curculionidae). *International Journal of Pest Management*, 45: 231-237.
- Turlings, T.C.J., & Jurriaan., T (2006). Exploiting scents of distress: the prospect of manipulating herbivore-induced plant odours to enhance the control of agricultural pests. *Current Opinion in Plant Biology*, 9:421-427.

### Assessments

- **Unit 02 Section 01 Quiz** (accessed through the **Quizzes** tool)  
Opens: Monday, October 3 at 12:01 am ET  
Closes: Sunday, October 9 by 11:59 pm ET

## Section 02: Natural Source Insecticides

### Week 5 – Monday, October 10 to Sunday, October 16

#### Readings

- Website: Unit 02 Section 02 content
- Ares:
  - Nester, E.W., et al. (2002). 100 Years of *Bacillus thuringiensis*: A Critical Scientific Assessment. pp. 1-18. (Eugene W. Nester, Linda S. Thomashow, Matthew Metz and Milton Gordon, eds.) Copyright 2002. *American Academy of Microbiology*.
  - Regnault-Roger, C. & Philogene, B. (2008). Past and current prospects for the use of botanicals and plant allelochemicals in integrated pest management. *Pharmaceutical Biology*, 46: 41-52.

### Assessments

- **Unit 02 Group Debate** – Introduce yourself to your groups  
Opens: Monday, October 10 at 12:01 am ET  
Closes: Sunday, October 30 at 11:59 pm ET

**Unit 02 Section 02 Quiz** (accessed through the **Quizzes** tool)  
Opens: Monday, October 10 at 12:01 am ET  
Closes: Sunday, October 16 by 11:59 pm ET

## Section 03: Issues Associated with Natural Chemicals in Agriculture

### Weeks 6 & 7 – Monday, October 17 to Sunday, October 30

#### Readings

- Website: Unit 02 Section 03 and Conclusion content



- Ares:
  - Ames, B. N. & Gold L. S. (1990). Chemical carcinogenesis: Too many rodent carcinogens. *Proceedings of the National Academy of Science, USA*, 87: 7772-7776.
  - Ames, B. N., Profet, M. & Gold, L. S. (1990). Dietary pesticides (99.99% all natural). *Proceedings of the National Academy of Science, USA*, 87: 7777-7781.
  - Ames, B. N., Profet, M. & Gold, L. S. (1990). Nature's Chemicals and Synthetic Chemicals: Comparative Toxicology. *Proceedings of the National Academy of Science, USA*, 87: 7782-7786.

### Assessments

- **Unit 02 Group Debate** – Post a minimum of 4 posts, at least two of them must be made during Week 6  
 Opens: Monday, October 10 at 12:01 am ET  
 Closes: Sunday, October 30 at 11:59 pm ET
- **Unit 02 Section 03 Quiz** (accessed through the **Quizzes** tool)  
 Opens: Monday, October 17 at 12:01 am ET  
 Closes: Sunday, October 30 by 11:59 pm ET
- **Unit 02 Quiz** (accessed through the **Quizzes** tool)  
 Opens: Monday, October 3 at 12:01 am ET  
 Closes: Sunday, October 30 by 11:59 pm ET

## UNIT 03: CLINICAL USES OF NATURAL CHEMICALS

### Section 01: Herbalism and the History of Medicine

**Week 8 – Monday, October 31 to Sunday, November 6**

#### Readings

- Website: Unit 03 Overview and Section 01 content
- Ares:
  - Huffman, M. A. (2003). Animal self-medication and ethno-medicine: exploration and exploitation of the medicinal properties of plants. *Proceedings of the Nutrition Society*, 62:371-381.
  - Mann, J. (2000). Medicine: Introduction: A history of pharmacy. pp. 129-143. In *Murder, Magic & Medicine*.

### Assessments

- **Unit 02 Debate Paper**  
 Due: Sunday, November 6 at 11:59 pm ET

- **Unit 03 Section 01 Quiz** (accessed through the **Quizzes** tool)  
Opens: Monday, October 31 at 12:01 am ET  
Closes: Sunday, November 6 by 11:59 pm ET

## Section 02: Opium and Analgesia

### Week 9 – Monday, November 7 to Sunday, November 13

#### Readings

- Website: Unit 03 Section 02 content
- Ares:
  - Mann, J. (2000). Drugs affecting the central nervous system. pp. 190-206. In *Murder, Magic & Medicine*.
  - Brown, M. (2002). Killer snails ease the pain. *Drug Discovery Today*, 7(17):885-886.
  - Garber, K. (2005). Peptide leads new class of chronic pain drugs. *Nature Biotechnology*, 23(4):399.

#### Assessments

- **Unit 03 Group Debate** – Introduce yourself to your group  
Opens: Monday, November 7 at 12:01 am ET  
Closes: Sunday, November 27 at 11:59 pm ET

**Unit 03 Section 02 Quiz** (accessed through the **Quizzes** tool)  
Opens: Monday, November 7 at 12:01 am ET  
Closes: Sunday, November 13 by 11:59 pm ET

## Section 03: Environmentally Sustainable Production of Plant-Derived Medicines

### Week 10 – Monday, November 14 to Sunday, November 20

#### Readings

- Website: Unit 03 Section 03 and Conclusion content
- Ares:
  - Nicolaou, K.C., Guy, R.K., and P. Potier. (1996). Taxoids: New Weapons against Cancer. *Scientific American*, 274(6): 94-98.
  - Government of Canada (2013) *Taxus brevifolia* Nutt. (Pacific Yew). Agriculture and Agri-Food Canada.
  - Noland, T. and M. Abou-Zaid. (2008). Canada yew: Developing a value-added crop for Northern Ontario. *Ontario Ministry of Natural Resources Forest Research Report No. 172*.

- Pinto, F. and D. Herr. (2005). Autecology of Canada Yew (*Taxus canadensis* Marsh.). *Ontario Ministry of Natural Resources Southern Science and Information Section Technical Note #12*.

### Assessments

- **Unit 03 Group Debate** – Post a minimum of 2 posts  
Opens: Monday, November 7 at 12:01 am ET  
Closes: Sunday, November 27 at 11:59 pm ET
- **Unit 03 Section 03 Quiz** (accessed through the **Quizzes** tool)  
Opens: Monday, November 14 at 12:01 am ET  
Closes: Sunday, November 20 by 11:59 pm ET
- **Unit 03 Quiz** (accessed through the **Quizzes** tool)  
Opens: Monday, October 31 at 12:01 am ET  
Closes: Sunday, November 20 by 11:59 pm ET

## UNIT 04: FROM FOREST TO PHARMACY

### Section 01: Conservation of Healing Knowledge

**Week 11 – Monday, November 21 to Sunday, November 27**

#### Readings

- Website: Unit 04 Introduction and Section 01 content
- Ares:
  - McClatchey, WC, Mahady, GB, Bennett, BC, Shiels, L, and V. Savo. (2009). Ethnobotany as a pharmacological research tool and recent developments in CNS-active natural products from ethnobotanical sources. *Pharmacology & Therapeutics*, 123: 239-254.

### Assessments

- **Unit 03 Group Debate** – Post a minimum of 2 posts  
Opens: Monday, November 7 at 12:01 am ET  
Closes: Sunday, November 27 at 11:59 pm ET
- **Unit 04 Section 01 Quiz** (accessed through the **Quizzes** tool)  
Opens: Monday, November 21 at 12:01 am ET  
Closes: Sunday, November 27 by 11:59 pm ET

### Section 02: Conservation of Biodiversity and Ecosystems

**Week 12 – Monday, November 28 to Friday, December 2**

#### Readings

- Website: Unit 04 Section 02 and Conclusion content

- Ares:
  - Tuxill, J. (1999). Appreciating the Benefits of Plant Biodiversity. *State of the World 1999: A Worldwatch Institute Report on Progress towards a Sustainable Society*.
  - World Resources Institute. (2005). Ecosystems and Human Well-being: Biodiversity Synthesis. *Millennium Ecosystem Assessment*.

## Assessments

- **Unit 03 Debate Paper**  
Closes: Friday, December 2 at 11:59 pm ET
- **Unit 04 Section 02 Quiz** (accessed through the **Quizzes** tool)  
Opens: Monday, November 28 at 12:01 am ET  
Closes: Friday, December 2 by 11:59 pm ET
- **Unit 04 Quiz** (accessed through the **Quizzes** tool)  
Opens: Monday, November 21 at 12:01 am ET  
Closes: Friday, December 2 by 11:59 pm ET

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## Assessment

The grade determination for this course is indicated in the following table. A brief description of each assessment is provided below. Select **Content** on the navbar to locate **Assessments** in the table of contents panel to review further details of each assessment. Due dates can be found under the Schedule heading of this outline.

**Table 1: Course Assessment**

Assessment Item	Weight
Literature Assignment	7.5%
Weekly Section Quizzes (1.5% * 10) (11 quizzes; lowest mark deleted)	15%
Unit Quizzes (2.5% * 3) (4 quizzes, lowest mark deleted)	7.5%
Group Debate Assignments (2 X 20%)	40%
Take-home Final Exam	30%
<b>Total</b>	<b>100%</b>

## Assessment Descriptions

### Literature Assignment

The Literature Assignment will help to familiarize you with the process of locating relevant scientific literature. Through this assignment, you will learn how to concisely summarize the important elements of a piece of scientific research while applying important concepts from the course content.

### Weekly Section Quizzes

At the end of each section, there is an online quiz due (see **Schedule** above for exact times and dates when they are due). You get up to four attempts for each quiz (by only redoing the incorrect questions). There are a total of 11 Section Quizzes, but the lowest grade will not count towards your final grade. Each quiz consists mostly of multiple choice, select-all and true/false questions.

### Unit Quizzes

At the end of each of the four units, there will be a short unit quiz with exam-style short to long-answer questions. The lowest of the four marks will be dropped.

### Group Debate Assignments

Multi-part assignments associated with Units 02 & 03 that will allow you to explore and debate issues concerning the use of natural chemicals. Each Group Debate Assignment consists of three components: a statement of your initial position on each topic (due at the end of Week 1); participation in the group debates; and a debate paper.

### Take-home Final Exam

This course requires you to submit a take-home final exam to the **Dropbox** tool in CourseLink. The final exam covers material from the entire course and focuses mainly on the understanding and application of the material. The majority of questions will require short written answers. Select **Content** on the navbar to locate **Assessments** in the table of contents panel to review further details of the final exam.

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## Course Technology Requirements and Technical Support

### CourseLink System Requirements

You are responsible for ensuring that your computer system meets the necessary [system requirements](#). Use the [browser check](#) tool to ensure your browser settings are compatible and up to date. (Results will be displayed in a new browser window).

<https://opened.uoguelph.ca/student-resources/system-and-software-requirements>

<https://courselink.uoguelph.ca/d2l/systemCheck>

## Zoom Requirements

This course may use **Zoom** as a video communication tool. A Webcam, headphones/speakers may be needed. Review the [Zoom information for students \(uoguelph\)](#) to ensure that your computer meets the technical requirements.

<https://support.opened.uoguelph.ca/students/courselink/tools/content/zoom>

## Technical Skills

As part of your online experience, you are expected to use a variety of technology as part of your learning:

- Manage files and folders on your computer (e.g., save, name, copy, backup, rename, delete, and check properties);
- Install software, security, and virus protection;
- Use office applications (e.g., Word, PowerPoint, Excel, or similar) to create documents;
- Be comfortable uploading and downloading saved files;
- Communicate using email (e.g., create, receive, reply, print, send, download, and open attachments);
- Navigate the CourseLink learning environment and use the essential tools, such as **Dropbox**, **Discussions**, and **Grades** (the instructions for this are given in your course);
- Access, navigate, and search the Internet using a web browser (e.g., Firefox, Internet Explorer); and
- Perform online research using various search engines (e.g., Google) and library databases.

## Technical Support

If you need any assistance with the software tools or the CourseLink website, contact CourseLink Support.

### CourseLink Support

University of Guelph

Day Hall, Room 211

Email: [courselink@uoguelph.ca](mailto:courselink@uoguelph.ca)

Tel: 519-824-4120 ext. 56939

Toll-Free (CAN/USA): 1-866-275-1478

### Walk-In Hours (Eastern Time):

Monday thru Friday: 8:30 am–4:30 pm

### Phone/Email Hours (Eastern Time):

Monday thru Friday: 8:30 am–8:30 pm

Saturday: 10:00 am–4:00 pm

Sunday: 12:00 pm–6:00 pm

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# Course Specific Standard Statements

## Acceptable Use

The University of Guelph has an [Acceptable Use Policy](https://www.uoguelph.ca/ccs/infosec/aup), which you are expected to adhere to.

<https://www.uoguelph.ca/ccs/infosec/aup>

## Communicating with Your Instructor

During the course, your instructor will interact with you on various course matters on the course website using the following ways of communication:

- **Announcements:** The instructor will use **Announcements** on the Course Home page to provide you with course reminders and updates. Please check this section frequently for course updates from your instructor.
- **Ask Your Instructor Discussion:** Use this discussion forum to ask questions of your instructor about content or course-related issues with which you are unfamiliar. If you encounter difficulties, the instructor is here to help you. Please post general course-related questions to the discussion forum so that all students have an opportunity to review the response. The instructor and/or TA's will check this discussion daily Monday-Friday. To access this discussion forum, select **Discussions** from the **Tools** dropdown menu.
- **Email:** If you have a conflict that prevents you from completing course requirements, or have a question concerning a personal matter, you can send your instructor a private message by email. The instructor will respond to your email within 48 to 72 hours.
- **Online meeting:** If you have a complex question you would like to discuss with your instructor, you may book an online meeting. Online meetings depend on the availability of you and the instructor, and are booked on a first come first served basis.

## Netiquette Expectations

For distance education courses, the course website is considered the classroom and the same protections, expectations, guidelines, and regulations used in face-to-face settings apply, plus other policies and considerations that come into play specifically because these courses are online.

Inappropriate online behaviour will not be tolerated. Examples of inappropriate online behaviour include:

- Posting inflammatory messages about your instructor or fellow students;
- Using obscene or offensive language online;
- Copying or presenting someone else's work as your own;

- Adapting information from the Internet without using proper citations or references;
- Buying or selling term papers or assignments;
- Posting or selling course materials to course notes websites;
- Having someone else complete your quiz or completing a quiz for/with another student;
- Stating false claims about lost quiz answers or other assignment submissions;
- Threatening or harassing a student or instructor online;
- Discriminating against fellow students, instructors, and/or TAs;
- Using the course website to promote profit-driven products or services;
- Attempting to compromise the security or functionality of the learning management system;
- Sharing your username and password; and
- Recording lectures without the permission of the instructor.

## Submission of Assignments to Dropbox

Your Initial Position Statement, Literature Assignment and the Debate Papers should all be submitted electronically via the online **Dropbox** tool. When submitting your assignments using the **Dropbox** tool, do not leave the page until your assignment has successfully uploaded. To verify that your submission was complete, you can view the submission history immediately after the upload to see which files uploaded successfully. The system will also email you a receipt. Save this email receipt as proof of submission.

Be sure to keep a back-up copy of all of your assignments in the event that they are lost in transition. In order to avoid any last-minute computer problems, your instructor strongly recommend you save your assignments to a cloud-based file storage (e.g., Microsoft One Drive), or send to your email account, so that should something happen to your computer, the assignment could still be submitted on time or re-submitted.

It is your responsibility to submit your assignments on time as specified in the schedule section of this outline. Be sure to check the technical requirements and make sure you have the proper computer, that you have a supported browser, and that you have reliable Internet access. Remember that **technical difficulty is not an excuse not to turn in your assignment on time**. Don't wait until the last minute as you may get behind in your work.

If, for some reason, you have a technical difficulty when submitting your assignment electronically, please contact your instructor or [CourseLink Support](https://support.opened.uoguelph.ca/contact).

<https://support.opened.uoguelph.ca/contact>



## Late Policy

If you choose to submit your individual assignments to the **Dropbox** tool late, the full allocated mark will be reduced by 10% per day after the deadline for the submission of the assignment to a limit of six days at which time access to the **Dropbox** folder will be closed. Group Debate contributions must be completed within the appropriate time period, a 30% deduction will be applied to the paper of anyone who does not participate during the prescribed time period.

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 and well before the due date. 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.

## Obtaining Grades and Feedback

Unofficial assessment marks will be available in the **Grades** tool of the course website.

Your instructor will have grades posted online within 2 weeks of the submission deadline, if the assignment was submitted on time. Once your assignments are marked you can view your grades on the course website by selecting **Grades** from the **Tools** dropdown menu on the navbar. Your course will remain open to you for seven days following the last day of the final exam period.

University of Guelph degree students can access their final grade by logging into [WebAdvisor](#) (using your U of G central ID). Open Learning program students should log in to the [OpenEd Student Portal](#) to view their final grade (using the same username and password you have been using for your courses).

<https://www.uoguelph.ca/webadvisor>

<https://courses.opened.uoguelph.ca/portal/logon.do?method=load>

## Rights and Responsibilities When Learning Online

For distance education (DE) courses, the course website is considered the classroom and the same protections, expectations, guidelines, and regulations used in face-to-face settings apply, plus other policies and considerations that come into play specifically because these courses are online.

For more information on your rights and responsibilities when learning in the online environment, visit [Rights and Responsibilities](#).

<http://opened.uoguelph.ca/student-resources/rights-and-responsibilities>

## Turnitin Originality Check

In this course, your instructor will be using Turnitin, integrated with the CourseLink **Dropbox** tool, to detect possible plagiarism, unauthorized collaboration or copying as part of the ongoing efforts to maintain academic integrity at the University of Guelph.

All individual assignments submitted to the **Dropbox** tool will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of the Turnitin.com service is subject to the Usage Policy posted on the Turnitin.com site.

In this course, you will not be able to screen your own assignments through Turnitin by default. However, if you wish to know your Turnitin score before the deadline of an assignment, submit the assignment to Dropbox at least 24 hours before the assignment deadline and send an e-mail to your instructor ([shaerri@uoguelph.ca](mailto:shaerri@uoguelph.ca)). She will then let you know your report and your score and help you understand the report.

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# University Standard Statements

## University of Guelph: Undergraduate Policies

As a student of the University of Guelph, it is important for you to understand your rights and responsibilities and the academic rules and regulations that you must abide by.

If you are a registered **University of Guelph Degree Student**, consult the [Undergraduate Calendar](#) for the rules, regulations, curricula, programs and fees for current and previous academic years.

If you are an **Open Learning Program Student**, consult the [Open Learning Program Calendar](#) for information about University of Guelph administrative policies, procedures and services.

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/>

<http://opened.uoguelph.ca/student-resources/open-learning-program-calendar>

## Email Communication

As per university regulations, all students are required to check their uoguelph.ca e-mail account regularly: e-mail is the official route of communication between the University and its students.

## When You Cannot Meet Course Requirements

When you find yourself unable to meet an in-course requirement due to illness or compassionate reasons, please advise your course instructor **in writing**, with your name, ID number and email contact.

### University of Guelph Degree Students

Consult the [Undergraduate Calendar](#) for information on regulations and procedures for Academic Consideration.

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml>

### Open Learning Program Students

Please refer to the [Open Learning Program Calendar](#) for information on regulations and procedures for requesting Academic Consideration.

<http://opened.uoguelph.ca/student-resources/open-learning-program-calendar>

## Drop Date

### University of Guelph Degree Students

Students will have until the last day of classes to drop courses without academic penalty. [Review the Undergraduate Calendar for regulations and procedures for Dropping Courses.](#)

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml>

## **Open Learning Program Students**

Please refer to the [Open Learning Program Calendar](#).

<http://opened.uoguelph.ca/student-resources/open-learning-program-calendar>

## **Copies of Assignments**

Keep paper and/or other reliable back-up copies of all assignments: you may be asked to resubmit work at any time.

## **Accessibility**

### **University of Guelph Degree Students**

The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required; however, interim accommodations may be possible while that process is underway.

Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability.

Use of the SAS Exam Centre requires students to make a booking at least 14 days in advance, and no later than November 1 (fall), March 1 (winter) or July 1 (summer). Similarly, new or changed accommodations for online quizzes, tests and exams must be approved at least a week ahead of time.

For more information, contact Accessibility Services at 519-824-4120 ext. 56208, [email Accessibility Services](#) or visit the [Accessibility Services website](#).

[accessibility@uoguelph.ca](mailto:accessibility@uoguelph.ca)

<https://wellness.uoguelph.ca/accessibility/>

### **Open Learning Program Students**

If you are an Open Learning program student who requires academic accommodation, please [contact the Academic Assistant to the Executive Director](#). Please ensure that you contact us before the end of the first week of your course (every semester) in order to avoid any delays in support. Documentation from a health professional is required for all academic accommodations. Please note that all information provided will be held in confidence.

If you require textbooks produced in an alternate format (e.g., DAISY, Braille, large print or eText), please [contact the Academic Assistant to the Executive Director](#) at least two months prior to the course start date. If contact is not made within the suggested time

frame, support may be delayed. It is recommended that you refer to the course outline before beginning your course in order to determine the required readings.

The provision of academic accommodation is a shared responsibility between OpenEd and the student requesting accommodation. It is recognized that academic accommodations are intended to “level the playing field” for students with disabilities.

jessica.martin@uoguelph.ca

## **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.

The [Academic Misconduct Policy](#) is detailed in the Undergraduate Calendar.

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml>

## **Copyright Notice**

Content within this course is copyright protected. Third party copyrighted materials (such as book chapters and articles) have either been licensed for use in this course, or have been copied under an exception or limitation in Canadian Copyright law.

The fair dealing exemption in Canada's Copyright Act permits students to reproduce short excerpts from copyright-protected materials for purposes such as research, education, private study, criticism and review, with proper attribution. Any other copying, communicating, or distribution of any content provided in this course, except as permitted by law, may be an infringement of copyright if done without proper license or the consent of the copyright owner. Examples of infringing uses of copyrighted works would include uploading materials to a commercial third-party web site, or making paper or electronic reproductions of all, or a substantial part, of works such as textbooks for commercial purposes.

Students who upload to CourseLink copyrighted materials such as book chapters, journal articles, or materials taken from the Internet, must ensure that they comply with Canadian Copyright law or with the terms of the University's electronic resource licenses.

For more information about students' rights and obligations with respect to copyrighted works, review [Fair Dealing Guidance for Students](#).

[http://www.lib.uoguelph.ca/sites/default/files/fair\\_dealing\\_policy\\_0.pdf](http://www.lib.uoguelph.ca/sites/default/files/fair_dealing_policy_0.pdf)

## **Plagiarism Detection Software**

Students should be aware that faculty have the right to use software to aid in the detection of plagiarism or copying and to examine students orally on submitted work. For students found guilty of academic misconduct, serious penalties, up to and including suspension or expulsion from the University can be imposed.

## **Recording of Materials**

Presentations which are made in relation to course work—including lectures—cannot be recorded or copied without the permission of the presenter, whether the instructor, a classmate or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

## **Disclaimer**

Please note that the ongoing COVID-19 pandemic may necessitate a revision of the format of course offerings, changes in classroom protocols, and academic schedules. Any such changes will be announced via CourseLink and/or class email.

This includes on-campus scheduling during the semester, mid-terms and final examination schedules. All University-wide decisions will be posted on the [COVID-19 website](#) and circulated by email.

<https://news.uoguelph.ca/2019-novel-coronavirus-information/>

## **Illness**

Medical notes will not normally be required for singular instances of academic consideration, although students may be required to provide supporting documentation for multiple missed assessments or when involving a large part of a course (e.g., final exam or major assignment).

## **Covid-19 Safety Protocols**

For information on current safety protocols, follow these links:

- [How U of G Is Preparing for Your Safe Return](#)
- [Guidelines to Safely Navigate U of G Spaces](#)

Please note, these guidelines may be updated as required in response to evolving University, Public Health or government directives.

<https://news.uoguelph.ca/return-to-campus/how-u-of-g-is-preparing-for-your-safe-return/>

<https://news.uoguelph.ca/return-to-campus/spaces/#ClassroomSpaces>