



**University of Guelph, School of Environmental Sciences
ENVS*3020 W26 [0.50 credits]**



Instructor: Dr. Aaron Fairweather (They/Them)

Class Times and Location:

LECTURES: Mon, Wed, Fri 09:30am - 10:20am
Start: Jan 5th
End: April 6th

In person: LA (Landscape Architecture) 204

EXAM: Saturday, April 11th, 2026 (08:30am-10:30am)

Contact details:

Instructor Contact:

Dr. Aaron Fairweather (They/Them)
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TA Contacts:

Pheonix Nakagawa MSc, PhD Student (She/They)
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Alexandra Switzer MSc Student (She/Her)
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Office Hours:

Instructor: By Appointment Only. Please contact by e-mail.

Land Acknowledgement: Guelph

The University of Guelph resides on the ancestral lands of the Attawandaron people and the treaty lands and territory of the Mississaugas of the Credit. We recognize the significance of the Dish with One Spoon Covenant to this land and offer respect to our Anishinaabe, Haudenosaunee and Métis neighbours. Today, this gathering place is home to many First Nations, Inuit, and Métis peoples and acknowledging them reminds us of our important connection to this land where we work and learn.

Calendar Description

This course examines the role and use of pesticides by various facets of society and the effect of these pesticides on biological activities in the environment. Preparation of a research proposal is required for the course.

Prerequisite(s): [BIOL*1040 or (2 of BIOL*1050, BIOL*1070, BIOL*1080, BIOL*1090)],
CHEM*1040

Department(s): School of Environmental Sciences

Course Description:

This course explores the diverse modes of action of botanical, microbial and synthetic insecticides, acaricides and nematicides. Detoxification mechanisms, selectivity, resistance management and the process of pesticide discovery and development are also considered. The course includes a review of insect physiological systems and discussion of the stability and distribution of pesticides in the environment.

Statement of Learning Outcomes:

Additional Support

Cost of Textbooks and Learning Resources

Textbook / Learning Resource	Required / Recommended	Cost
Pesticides and the Environment, 3rd Ed.	Required	\$19.99

Required Textbook and Readings

Pesticides and the Environment by Prosser & Solomon 3rd ED.

E-book and soft cover available from Amazon.ca

https://www.amazon.ca/Pesticides-Environment-Ryan-Prosser-ebook/dp/B09NH3ZR5N/ref=tmm_kin_swatch_0/?_encoding=UTF8&qid=1704484336&sr=8-2
(https://www.amazon.ca/Pesticides-Environment-Ryan-Prosser-ebook/dp/B09NH3ZR5N/ref=tmm_kin_swatch_0/?_encoding=UTF8&qid=1704484336&sr=8-2)

- Week 1 - Chapter 1
- Week 2 - Chapter 2, Sections 2.1.1 to 2.2
- Week 3 - Chapter 3, Sections 3.1 to 3.2
- Week 4 - Chapter 3, Sections 3.3
- Week 5 - Chapter 9

- Week 6 - Chapter 10
- Week 7 - Chapter 11
- Week 8 - Chapter 12
- Week 9 - Chapter 13
- Week 10 - Chapter 14
- Week 11 - Chapter 16
- Week 12 - Chapter 17

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>

Learning Resources

Campus Resources

If you are concerned about any aspect of your academic program: Make an appointment with a Program Counsellor (<https://www.uoguelph.ca/uaic/programcounsellors/>) in your degree program. If you are struggling to succeed academically: There are numerous academic resources offered by the Learning Commons (<https://www.lib.uoguelph.ca/using-library/spaces/learning-commons/>) including, Supported Learning Groups for a variety of courses, workshops related to time management, taking multiple choice exams, and general study skills.

Course Learning Outcomes

1. Gain a perspective of the historical and current applications of pesticides and the benefits and drawbacks of their use.
2. Be able to describe methods of classifying pesticides based characteristics including use and mode of action.
3. Be able to understand chemical, physical and biological properties of pesticides that are important for predicting their fate and impact in the environment.
4. Gain experience in formulating objective research questions to address current pesticide-related questions.
5. Gain an understanding of the role of risk assessment in monitoring and managing existing and emerging concerns with pesticides.
6. Be aware of regulations governing the use of pesticides locally and internationally.
7. Be able to extrapolate from the principles learned in this course to a broader range of environmental issues.

Teaching and Learning Activities

Midterm Examinations

Midterm I

The first midterm examination will take place in class on Wednesday, February 11th. The examination will cover all of the material presented in class and in the assigned readings up to Friday, February 6th.

Midterm II

The second midterm examination will take place in class on Wednesday, March 4th. The examination will cover all of the material presented in class and in the assigned readings up to Friday, February 27th.

Final Examination

The final examination will occur on Saturday, April 11th from 8:30 to 10:30 am. The finale examination will cover all of the information covered in class (including guest lectures) and the information covered in the assigned readings.

Mark Allocations:

Description	Value	Due Date	Learning Objectives
Midterm I	30%	Wednesday, February 11 th 09:30am - 10:20pm (during lecture)	Lecture and Readings up to February 6th
Midterm II	30%	Wednesday, March 4 th 09:30am - 10:20pm (during lecture)	Lectures and Readings up to February 27th
Final Examination	40%	Saturday, April 11 th (08:30am-10:30am)	All lecture material and readings

- Re-evaluations: Students have 5 class-days upon receiving the evaluated exam to appeal the grade received. The entire exam will be re-evaluated for accuracy.

Last Day to Drop Course

The final day to drop Winter 2025 courses without academic penalty is the last day of classes: April 06

After this date, a mark will be recorded, whether course work is completed or not (a zero is assigned for missed tests/assignments). This mark will show on the student's transcript and will be calculated into their average.

Policy on Late Assignments:

All take-home assignments are due by midnight (00:00 EST) to the Counselink dropbox the night they are due. A penalty of 10% per day will be deducted for late assignments without excuse. Great leniency and consideration will be given to due dates, **however an email requesting extension is a must.**

Course Policy on Group Work:

All students must submit independently written examinations.

Standard Statements for Undergraduate Courses

Academic Integrity

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 (<https://calendar.uoguelph.ca/undergraduate-calendar/undergraduate-degree-regulations-procedures/academic-misconduct/>) is outlined in the Undergraduate Calendar.

Accessibility

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 10 days in advance, and no later than the first business day in November, March or July as appropriate for the semester. Similarly, new or changed accommodations for online quizzes, tests and exams must be approved at least a week ahead of time. For students at the Guelph campus, information can be found on the SAS website. (<https://www.uoguelph.ca/sas/>)

Accommodation of Religious Obligations

If you are unable to meet an in-course requirement due to religious obligations, please email the course instructor within two weeks of the start of the semester to make alternate arrangements. See the Academic calendar for information on regulations and procedures for Academic Accommodations of Religious Obligations (<https://calendar.uoguelph.ca/undergraduate-calendar/undergraduate-degree-regulations-procedures/academic-accommodation-religious-obligations/>).

Copies of Out-of-class Assignments

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

Drop Date

Students will have until the last day of classes to drop courses without academic penalty. The deadline to drop two-semester courses will be the last day of classes in the second semester. This applies to all undergraduate students except for Doctor of Veterinary Medicine and Associate Diploma in Veterinary Technology (conventional and alternative delivery) students. The regulations and procedures for course registration are available in the Undergraduate Calendar - Dropping Courses (<https://calendar.uoguelph.ca/undergraduate-calendar/undergraduate-degree-regulations-procedures/dropping-courses/>)

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.

Health and Wellbeing

The University of Guelph provides a wide range of health and wellbeing services at the Vaccarino Centre for Student Wellness (<https://wellness.uoguelph.ca/>). If you are concerned about your mental health and not sure where to start, connect with a Student Wellness Navigator(<https://wellness.uoguelph.ca/navigators/>) who can help develop a plan to manage

and support your mental health or check out our mental wellbeing resources (<https://wellness.uoguelph.ca/shine-this-year/>). The Student Wellness team are here to help and welcome the opportunity to connect with you.

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). Recording of Materials

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

Resources

The Academic Calendars (<http://www.uoguelph.ca/registrar/calendars/?index>) are the source of information about the University of Guelph's procedures, policies and regulations which apply to undergraduate, graduate and diploma programs.

When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons please advise the course instructor (or designated person, such as a teaching assistant) in writing, with your name, id#, and e-mail contact. See the Undergraduate Calendar for information on regulations and procedures for Academic Consideration. (<https://calendar.uoguelph.ca/undergraduate-calendar/undergraduate-degree-regulations-procedures/academic-consideration-appeals-petitions/>)

Course Evaluations:

The School of Environmental Sciences takes student feedback seriously. The SES Director sees all student feedback and discusses this feedback with the faculty where appropriate. Numerical scores and *signed* student comments are reviewed by the School's Tenure & Promotion Committee, and are considered in our evaluation of the faculty member for the granting of tenure, advancement in rank, and performance related salary increases. This committee will NOT see comments that are not signed by the student. *Faculty members are not able to access their own teaching evaluations until after their final grades are submitted to the registrar.*

Writing and Learning Services at McLaughlin Library:

The University of Guelph McLaughlin Library offers a variety of writing and learning services for students that want help with any stage of writing, presentation, or managing their workload. Taking advantage of these free services is highly encouraged.

[Appointments for Writing Support](#)

- Services at all stages in the writing process (from brainstorming to completed drafts) to build skills and create action plans
- Specialized consultations for English language learners

[Appointments](#) are available online and in-person. Questions? Email writing@uoguelph.ca

[Appointments for Studying, Time Management, and Presentation Skills](#)

- Strategies for creating a study plan, managing a heavy courseload, and reducing procrastination
- New approaches to note-taking and studying for exams
- Opportunities to practice your presentations and receive feedback

[Appointments](#) are available online and in-person. Questions? Email learning@uoguelph.ca