ORIGINAL COURSE IMPLEMENTATION DATE:	September 2008
REVISED COURSE IMPLEMENTATION DATE:	September 2023
COURSE TO BE REVIEWED (six years after UEC approval)**:**	February 2029

Course outline form version: 09/08/2021

OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

Note: The University reserves the right to amend course outlines as needed without notice.

Course Code and Number: AGRI 203	**Number of Credits:** 3 Course credit policy (105)
Course Full Title: Fundamentals of Integrated Pest Management **Course Short Title:** Fundamentals of IPM	
Faculty: Faculty of Science	**Department (or program if no department):** Agriculture Technology

Calendar Description:

Integrated pest management (IPM) will be examined as a decision-making process for agricultural and non-agricultural settings. The use of pest scouting data and thresholds to make management decisions will be examined and practiced. A range of pest management strategies (chemical, biological, cultural – including different methods of breeding, physical) will be explored. Pesticide issues such as pesticide treadmill, resistance, secondary pest outbreaks, and environmental impact will be discussed. Hands-on barn, lab and greenhouse activities will be incorporated into lectures.

Note: Field trips outside of class time may be required. Please check with the department for details.

Prerequisites (or NONE):	None.
Corequisites (if applicable, or NONE):	
Pre/corequisites (if applicable, or NONE):	AGRI 163.

Antirequisite Courses *(Cannot be taken for additional credit.)*

Former course code/number: **AGRI 200**

Cross-listed with:

Equivalent course(s):

(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)

Typical Structure of Instructional Hours

Lecture/seminar	25
Supervised laboratory hours (science lab)	10
Experiential (field trip)	10
Total hours	**45**

Scheduled Laboratory Hours

Labs to be scheduled independent of lecture hours: ☒ No ☐ Yes

Course Details

Special Topics course: **No**

(If yes, the course will be offered under different letter designations representing different topics.)

Directed Study course: **No**

(See policy 207 for more information.)

Grading System: **Letter grades**

Delivery Mode: **Face-to-face only**

Expected frequency: **Fall only**

Maximum enrolment (for information only)**: 32**

Prior Learning Assessment and Recognition (PLAR)

PLAR is available for this course.

Transfer Credit *(See **bctransferguide.ca**.)*

Transfer credit already exists: **Yes**

Submit outline for (re)articulation: **Yes**

(If yes, fill in transfer credit form.)

Department approval	**Date of meeting:**	June 2022
Faculty Council approval	**Date of meeting:**	September 9, 2022
Undergraduate Education Committee (UEC) approval	**Date of meeting:**	February 24, 2023

Learning Outcomes *(These should contribute to students' ability to meet program outcomes and thus Institutional Learning Outcomes.)*

Upon successful completion of this course, students will be able to:

1. Explain the concepts of Economic Injury Level and Action Threshold.
2. Find and interpret a pesticide label on the online Canadian Pesticide Label Database (Health Canada).
3. Navigate a pesticide label to determine if the product is legal for use in Canada, use specifications, and resistance management protocols.
4. Decide on a proper rotation program for pesticides for resistance management.
5. Differentiate between chronic versus acute toxicity as it relates to pesticide impacts on both humans and wildlife.
6. Differentiate between classical, conservation and introduction biological control – including which types of biological control are appropriate for which situations.
7. Develop a cultural control program for a given pest-commodity scenario.
8. Explain how different types of breeding can be used as a pest management tool.
9. Explain other types of pest control tools including physical and pheromone-based for different pest-commodity scenarios.
10. Implement a pest scouting program for a commodity grown in either the barn or greenhouse.
11. Collect and analyze pest scouting data collected from different commodities.

Recommended Evaluation Methods and Weighting *(Evaluation should align to learning outcomes.)*

Assignments:	50%	Quizzes/tests:	25%	Final exam:	25%
	%		%		%

Details:

Assignments consist of 5 assignments worth 10% each, that cover different topics of the course. Each assignment includes:

- Data interpretation
- Literature search and citations
- Reflective component

NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.

Texts and Resource Materials *(Include online resources and Indigenous knowledge sources. Open Educational Resources (OER) should be included whenever possible. If more space is required, use the Supplemental Texts and Resource Materials form.)*

	Type	Author or description	Title and publication/access details	Year
1.	Online resource	University of Minnesota	Radcliffe's IPM World Textbook	2022
2.				
3.				
4.				
5.				

Required Additional Supplies and Materials *(Software, hardware, tools, specialized clothing, etc.)*

Calculator; appropriate, sage clothing for field trips; transportation for field trips.

Course Content and Topics

- Introduction to Integrated Pest Management including historical context – PreWWII, Paul Meuller (DDT), PostWWII, Rachel Carson and Stern et al., current day
- Economic Injury Level (EIL) and Action Threshold (AT)
- Monitoring
- Chemical control (toxicity – acute and chronic)
- Chemical control (pesticide label)
- Chemical control (toxicity – environmental concerns and mitigation)
- Biological control (including raptors for vertebrate control)
- Physical control, pheromone-based control
- Cultural control (including transgenic crops)
- IPM programs – on-farm and area-wide program examples