

ORIGINAL COURSE IMPLEMENTATION DATE: REVISED COURSE IMPLEMENTATION DATE: September 2015 September 2021 February 2027

COURSE TO BE REVIEWED (six years after UEC approval): Course outline form version: 05/18/2018

# **OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM**

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

Course Code and Number: AGRI 143		Number of Credits: 3 Course credit policy (105)						
Course Full Title: Introduction to Agriculture								
Course Short Title:								
(Transcripts only display 30 characters. Departments may recommend a short title if one is needed. If left blank, one will be assigned.)								
Faculty: Faculty of Applied and Technical St	udies	Department (or program if no department): Agriculture						
Calendar Description:								
An introductory exploration of agricultural production. The focus is on the role that machinery, automation, and robotics plays in the production, harvest, and post-harvest handling of agricultural products. Production in field, barn, and greenhouse operations will be explored. Use of technologies on farms of difference scales will also be explored. Hands-on experiences may include field trips.								
Prerequisites (or NONE):	None.							
Corequisites (if applicable, or NONE):								
Pre/corequisites (if applicable, or NONE):								
Antirequisite Courses (Cannot be taken for additional credit.)			Special Topics (Double-click on boxes to select.)					
Former course code/number:			This course is offered with different topics:					
Cross-listed with:			$\square$ No $\square$ Yes (If yes, topic will be recorded when offered.)					
Dual-listed with:			Independent Study					
Equivalent course(s):			If offered as an Independent Study course, this course may					
(If offered in the previous five years, antirequ	isite course(s	) will be	be repeated for further credit: (If yes, topic will be recorded.)					
included in the calendar description as a note that students with credit			⊠ No □ Yes, repeat(s) □ Yes, no limit					
for the antirequisite course(s) cannot take this course for further credit.)				Transfer Credit				
Typical Structure of Instructional Hours			Transfer credit already exists: (See bctransferguide ca.)					
Lecture /cominer hours			$\boxtimes$ No $\square$ Yes					
Tutoriolo/workchopo	30	Submit	Submit outline for (re)articulation:					
			$\boxtimes$ No $\square$ Yes (If ves. fill in transfer credit form.)					
Supervised laboratory nours	45							
Experiential (field experience, practicum, internship, etc		15						
Supervised online activities				er Grades 📋 Credit/No C	realt			
Other contact hours:	<b>T</b> ( ) )	45	Maximu	um enrolment (for inform	ation only): 25			
	lotal nours	5 45	Expect	ed Frequency of Course	Offerings:			
Labs to be scheduled independent of lecture	Labs to be scheduled independent of lecture hours: 🛛 No 🗌 Yes Annually (Every semester, Fall only, annually, etc.)							
Department / Program Head or Director:				Date approved:	December 2020			
Faculty Council approval				Date approved:	December 18, 2020			
Dean/Associate VP:				Date approved:	December 18, 2020			
Campus-Wide Consultation (CWC)				Date of posting:	February 5, 2021			
Undergraduate Education Committee (UEC) approval			Date of meeting:	February 26, 2021				

# Learning Outcomes:

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

- Describe common agricultural settings, environments and practices such as barns, greenhouse, field applications etc.
- Analyze and evaluate machinery including electronics in agriculture and its application in agriculture, such as operational machinery, automation equipment, and control systems.
- Analyze common control practices in agriculture.
- Investigate electronics, humans, and livestock interaction.
- Practice safety and evaluate work environment considerations in various agricultural settings.
- Explore current technologies used in agriculture and areas of interest for future agriculture technology development and research.

## Prior Learning Assessment and Recognition (PLAR)

Yes INO, PLAR cannot be awarded for this course because

**Typical Instructional Methods** (*Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.*) Lectures and Lab/field tour work with occasional guest lecture.

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

Typical Text(s) and Resource Materials (If more space is required, download Supplemental Texts and Resource Materials form.)						
	Author (surname, initials)	Title (article, book, journal, etc.)	Current ed.	Publisher	Year	
1.		Selected online articles and readings				
2.						

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

## **Typical Evaluation Methods and Weighting**

Final exam:	%	Assignments:	50%	Field experience:	%	Portfolio:	%
Midterm exam:	50%	Project:	%	Practicum:	%	Other:	%
Quizzes/tests:		Lab work:	%	Shop work:	%	Total:	100%

## Details (if necessary):

# **Typical Course Content and Topics**

## Module 1: Safety Practices

- Study of machinery hazards, hazard sources
- An understanding of the issues and values of hazard and safety in machinery operations
- Facilitate effective utilization of signal communication techniques
- Attainment of relevant knowledge in accident prevention in primary production processes

## Module 2: Machinery Management

## Part I. Economic performance

- Machine Performance
- Power Performance
- Operator Performance

Part II. Costs

## Cost Determination

Part III. Operations

- Tillage
- Seedbed Preparation
- Cultivation
- Seeding Machines
- Chemical Application
- Grain Harvesting
- Forage Harvesting
- Farm Processing
- Materials Handling
- Special Crop Machines
- Part IV. The future of agriculture
  - Autonomous Machinery Selection
  - Alternative Power Selection
  - Space, the final frontier terraforming Mars