UCFV
UNIVERSITY COLLEGE of the FRASER VALLEY

OFFICIAL UNDERGRADUATE COURSE OUTLINE (page 1)

COURSE IMPLEMENTATION DATE: September 2008
COURSE REVISED IMPLEMENTATION DATE: January 2009
COURSE TO BE REVIEWED: February 2012
(four years after UPAC approval) *(month, year)*

OFFICIAL UNDERGRADUATE COURSE OUTLINE INFORMATION

Students are advised to keep course outlines in personal files for future use.
Shaded headings are subject to change at the discretion of the department – see course syllabus available from instructor

AGRI 206	Trades and Technology - Agriculture Technology	3
COURSE NAME/NUMBER	FACULTY/DEPARTMENT	UCFV CREDITS

Field Techniques in Pest Management
COURSE DESCRIPTIVE TITLE

CALENDAR DESCRIPTION:

This course focuses on tools and techniques used by growers and pest control professionals for detection, diagnosis, and management of pests. Research on new pest control products and on pest biology will be discussed, and students will conduct research. Different methods of communication including field days, presentations, and written reports will be practised. Examples from local agriculture, horticulture, and livestock will be used extensively throughout class. Students will be required to work in the UCFV greenhouses or barn outside of class. Field trips are required.

PREREQUISITES: AGRI 163 and AGRI 203
COREQUISITES: None
PRE or COREQUISITES:

SYNONYMOUS COURSE(S):
(a) Replaces: **AGRI 205**
(b) Cross-listed with:
(c) Cannot take: for further credit.

SERVICE COURSE TO: *(department/program)*

TOTAL HOURS PER TERM: **75**

STRUCTURE OF HOURS:

Lectures:	**45**	Hrs
Seminar:		Hrs
Laboratory:	**10**	Hrs
Field experience:	**10**	Hrs
Student directed learning:	**10**	Hrs
Other (specify):		Hrs

TRAINING DAY-BASED INSTRUCTION:
Length of course:
Hours per day:

OTHER:
Maximum enrolment: **25**
Expected frequency of course offerings: Annually
(every semester, annually, every other year, etc.)

WILL TRANSFER CREDIT BE REQUESTED? (lower-level courses only)	☒ Yes	☐ No
WILL TRANSFER CREDIT BE REQUESTED? (upper-level requested by department)	☐ Yes	☐ No
TRANSFER CREDIT EXISTS IN BCCAT TRANSFER GUIDE:	☐ Yes	☐ No

Course designer(s): **Renee Prasad/Tom Baumann**
Department Head: **Rose Morrison** Date approved: **April 14, 2008**
Supporting area consultation (UPACA1) Date of meeting: **April 18, 2008**
Curriculum Committee chair: **Rose Morrison** Date approved: **April 2008**
Dean/Associate VP: **Harv McCullough** Date approved: **May 2008**
Undergraduate Program Advisory Committee (UPAC) approval Date of meeting: **May 23, 2008**

LEARNING OUTCOMES:

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

- Use a number of tools and techniques used for the detection and management of pests, including a backpack sprayer and biological control agents
- Conduct a research project from conception to final analysis of data and presentation of results. Students will also be exposed to a variety of communication approaches.

METHODS: *(Guest lecturers, presentations, online instruction, field trips, etc.)*

Lecture, field trips, seminars and guest speakers

METHODS OF OBTAINING PRIOR LEARNING ASSESSMENT RECOGNITION (PLAR):

☒ Examination(s) ☐ Portfolio assessment ☐ Interview(s)

☒ Other (specify): Exam and pest folio

☐ PLAR cannot be awarded for this course for the following reason(s):

TEXTBOOKS, REFERENCES, MATERIALS:

[Textbook selection varies by instructor. An example of texts for this course might be:]

Pedigo, L. Entomology and Pest Management

SUPPLIES / MATERIALS:

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

STUDENT EVALUATION:

[An example of student evaluation for this course might be:]

Assignment	20%
Quizzes	10%
Midterm	30%
Final exam	40%

COURSE CONTENT:

[Course content varies by instructor. An example of course content might be:]

Module 1: Pest Control Techniques

- Biological control
  - When to use biological control
  - Determining which natural enemies are needed
  - Assessing natural enemy quality
  - Handling and release considerations for natural enemies
  - Developing a biologically based management program
  - Compatibility of natural enemies with other control tools
- Chemical control
  - When to use chemical control
  - Selecting the appropriate pesticide
  - Reading the pesticide label
  - Sprayer calibration & pesticide calculations
  - Storage, mixing and application
  - Sprayer types - including nozzles
  - Assessing spray coverage
- Other types of control:
  - Mammals and birds in both agricultural and urban environments
  - Structural pest control
  - Pest control of stored grain

Module 2: Pest monitoring

- Components of a monitoring program
- Finding thresholds for pests
  - Economic thresholds
  - Other types of thresholds
- Tools for monitoring
  - Data sheet
  - Visual assessment
  - Trapping tools
  - BCMAL Plant diagonostic lab
- Decision making following monitoring
  - Grower reports
  - Record keeping

Module 3: Pest Control Research

- Research bodies
- Research funding opportunities
  - Applying for research funding
- Types of research
  - Assessing control methods
    - Experimental
    - Operational
  - Pest biology and phenology
  - Survey
- Steps in conducting a research project
  - Identifying question in collaboration with growers
  - Grower group priority lists
  - Previous work
    - Literature review
    - Unpublished work - how to find out what's been done
  - Identifying other researchers and experts
  - Identifying grower collaborators for on-farm trials
  - Setting up experiment, survey area etc.
  - Data collection and analysis
  - Writing up and presenting results

Module 4: Communications and extension

- Consultant reports
- Field days
- Research presentations
- Reports and updates
- Other communication strategies
- Special topic - Pest management in urban environments /Communicating with the general public