



**DEPARTMENT OF ANIMAL SCIENCE**

**COURSE OUTLINE – FALL 2013**

**BK361: INTEGRATED PEST MANAGEMENT – 1.5(2.5-0-2) 36 HOURS**

**INSTRUCTOR:** Eric Stromgren                      **PHONE:** 780.835.6610  
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**OFFICE HOURS:** As posted

**PREREQUISITE(S)/COREQUISITE:** BK 200

**REQUIRED TEXT/RESOURCE MATERIALS:** TBA

**CALENDAR DESCRIPTION:**

Focus on the integrated approach to manage pests, diseases, parasites and other threats to bees/colonies and an in-depth study of monitoring, control strategies, and the safe use and handling of chemicals used to maintain hive health.

**CREDIT/CONTACT HOURS:**

Course consists of 2.5 lecture hours and 2 lab hours per week for 8 weeks; total of 36 hours.

**DELIVERY MODE(S):**

Course includes lectures, guest presentations, seminars, class discussions, readings, assignments, quizzes and a comprehensive final exam.

**OBJECTIVES (OPTIONAL):**

1. Understand integrated pest management approach as used in commercial beekeeping
2. Understand specific pesticides, organic acids, and other products used to manage pests, diseases, parasites, and other threats to colonies
3. Coordinate control strategies to prolong product efficacy while maintaining hive health
4. Understand hive hygiene, non-chemical approaches, cultural controls and genetic controls for hive health

5. Monitor mite levels, assess economic threshold, and treat as necessary using appropriate application methods
6. Understand the importance of research and ongoing learning at the individual beekeeper level to maintain current knowledge of pests, threats, options and trends.

**TRANSFERABILITY:**

\*\* Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions. Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability

**GRADING CRITERIA:**

<b>GRANDE PRAIRIE REGIONAL COLLEGE</b>			
<b>GRADING CONVERSION CHART</b>			
<b>Alpha Grade</b>	<b>4-point Equivalent</b>	<b>Percentage Guidelines</b>	<b>Designation</b>
<b>A<sup>+</sup></b>	<b>4.0</b>	<b>90 – 100</b>	<b>EXCELLENT</b>
<b>A</b>	<b>4.0</b>	<b>85 – 89</b>	
<b>A<sup>-</sup></b>	<b>3.7</b>	<b>80 – 84</b>	<b>FIRST CLASS STANDING</b>
<b>B<sup>+</sup></b>	<b>3.3</b>	<b>77 – 79</b>	
<b>B</b>	<b>3.0</b>	<b>73 – 76</b>	<b>GOOD</b>
<b>B<sup>-</sup></b>	<b>2.7</b>	<b>70 – 72</b>	
<b>C<sup>+</sup></b>	<b>2.3</b>	<b>67 – 69</b>	<b>SATISFACTORY</b>
<b>C</b>	<b>2.0</b>	<b>63 – 66</b>	
<b>C<sup>-</sup></b>	<b>1.7</b>	<b>60 – 62</b>	<b>MINIMAL PASS*</b>
<b>F</b>	<b>1.3</b>	<b>55 – 59</b>	<b>FAIL</b>
	<b>1.0</b>	<b>50 – 54</b>	
	<b>0.0</b>	<b>0 – 49</b>	
<b>WF</b>	<b>0.0</b>	<b>0</b>	<b>FAIL, withdrawal after the deadline</b>

## EVALUATIONS:

Class participation	20%
Assignments/labs	50%
Final Project	30%

## STUDENT RESPONSIBILITIES:

- Students are expected to be on-time and present to complete this course. Requests to reschedule assignments or assessments will only be granted under extraordinary circumstances.
- Students must follow all safety guidelines and procedures

## STATEMENT ON PLAGIARISM AND CHEATING:

Refer to the Student Conduct section of the College Admission Guide at <http://www.gprc.ab.ca/programs/calendar/> or the College Policy on Student Misconduct: Plagiarism and Cheating at [www.gprc.ab.ca/about/administration/policies/\\*\\*](http://www.gprc.ab.ca/about/administration/policies/**)

\*\*Note: all Academic and Administrative policies are available on the same page.

## COURSE SCHEDULE/TENTATIVE TIMELINE:

### Schedule of topics to be announced in class

1. Overview of IPM
2. Varroa Mites
3. *Nosema ceranae*
4. Pesticides in Beekeeping
5. Colony Collapse Disorder