

**ANSC 6490 ADVANCED DAIRY MANAGEMENT  
WINTER SEMESTER 2018 (2-3) [0.5]  
COURSE OUTLINE**

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**Professor:** Dr. Vern R. Osborne Dept. of Animal Biosciences, Room 235, ext. 53691, [vosborne@uoguelph.ca](mailto:vosborne@uoguelph.ca)

<b>Course Time:</b>	<b>Day</b>	<b>Time</b>	<b>Place</b>
Lectures:	Tues/Thurs	12:30-1:20 pm	ANNU 002
Lab/Workshop:	Thursday	2:30-5:20 pm	TBA

**Course Description:** A comprehensive systems science and integrative capstone course that encompasses the “closing of the loop” education of dairy production systems. Students will be exposed to real-time issues relating to dairy production from, environment, economics, nutrition, housing, genetics, society and agrology. This course will allow the student to practice their training from the courses they have been exposed to as undergraduates into many case study evaluations on farms provincially, nationally and internationally.

**Required course Material**

Material will be supplied or on CourseLink

**Topics**

The following is a list of advanced learning topics, which include but not limited to:

1. Genetics, traceability and genotyping
2. Reproduction and Replacement Management
3. Nutrition, grazing, feeding systems, nutrient flows (traditional and organic)
4. Nutrient management planning (plant selection, harvesting, storing)
5. Lactation, milk quality, milk harvesting systems, udder health
6. Milk marketing, pricing, CQM
7. Physical facilities, environment (air, water), climate and natural resources

All the topics will embrace; technology advances, information and learning resources, quantitative methods (e.g. regression methods, linear programming and differential equations) data synthesis, analysis, benchmarking, economics and society, teamwork building, effective communication (soft and hard skills), human resources, and mentorship placements.

## **Lecture/Workshop, /Seminar**

There will be two 50-minute lecture periods per week that will introduce all the course topics by faculty or guest lecturers from the industry.

The workshop/seminar time (3 hour period per week) will be portioned into; site visits (approximately 6 local dairy farms), data assimilation and analysis from participating national and international dairy farms via skype (approximately 2-3 farms) and student presentations and discussion forms.

### **Course Evaluation:**

Individual Case Study Reports (assigned by instructor) = 30 %

Individual report and oral presentation of student selected Case Study = 25%

Professional Farm assessment and question log = 45%

### **Learning Outcomes:**

Graduate students completing this course will:

1. Be able to conduct whole farm appraisals by integrating, interpreting and synthesizing information from multiple disciplines (environment, genetics, economics, nutrition, housing, society and agrology). Demonstrated through participation in lecture modules and analysis of case studies.
2. Be able to extrapolate, cultivate, construct and apply advanced research and analytical techniques. Demonstrated through modelling and integrated software programs presented in lectures and workshops.
3. Be able to effectively communicate their thoughts, arguments, and decision-making outcomes in an effective professional manner to a multitude of clientele including stakeholders, academics, government and primary producers. Demonstrated through the appraisal of domestic, national and international whole farm based case studies through individual farm contact, and social media interaction in an individual and team work group leadership context.
4. Develop a mature intellectual independence and to integrate ethical reasoning and apply it to their independent evaluation of issues facing dairy farmers globally. Advanced through lectures on dairy policy and traditions (e.g. cows being sacred in India).