ANIMAL SCIENCE (NON-THESIS): SUSTAINABLE AGRICULTURE (M.SC.A.) (45 CREDITS)

Offered by: Animal Science (Faculty of Agricultural and Environmental Sciences)
Degree: Master of Science, Applied
Program credit weight: 45

Program Description

Climate change and rising human population have increased the need for sustainable agricultural practices. The Sustainable Agriculture option is taken with a M.Sc. Applied (Non-Thesis) program, and designed for students who wish to supplement their basic degree with graduate studies in animal science, with a specific focus on sustainability in agriculture. Students will be exposed to different approaches to improve the sustainability of agricultural systems through specialized coursework and a research project. The program aims to provide graduate training in applied areas of animal production with a view toward integrating technology and management in sustainable animal production with allied areas of agricultural resource utilization.

Note: For information about Fall 2025 and Winter 2026 course offerings, please check back on May 8, 2025. Until then, the "Terms offered" field will appear blank for most courses while the class schedule is being finalized.

Research Project (15 credits)

Expand allContract all

Course	Title	Credits
ANSC 643	Project 1.	3
ANSC 644	Project 2.	3
ANSC 645	Project 3.	3
ANSC 646	Project 4.	3
ANSC 647	Project 5.	3

Required Courses (12 credits)

Expand allContract all

Course	Title	Credits
ANSC 555	The Use and Welfare of Animals.	3
BREE 533	Water Quality Management.	3
IGFS 611	Advanced Issues on Development, Food and Agriculture.	3
PLNT 602	Advances in Agronomy.	3

Complementary Courses (18 credits)

0-6 credits of sufficient 500-, or 600-level courses (with Adviser's approval) to bring the total credits to 45.

3 credits from the following list:

Expand allContract all

Course	Title	Credits
AEMA 610	Statistical Methods 2.	3
AEMA 611	Experimental Designs 1.	3
AEMA 614	Temporal and Spatial Statistics 1.	3

9-15 credits from the following list:

Expand allContract all

Course	Title	Credits
ANSC 530	Experimental Techniques in Nutrition.	3
ANSC 551	Carbohydrate and Lipid Metabolism.	3
ANSC 552	Protein Metabolism and Nutrition.	3
ANSC 560	Biology of Lactation.	3
ANSC 604	Advanced Animal Biotechnology.	3
ANSC 611	Advanced Reproductive Biology.	3
FDSC 545	Advances in Food Microbiology.	3
PLNT 635	Advanced Plant Breeding.	3
PLNT 662	Advances in Plant Biotechnology.	3