

# HONOURS AGRICULTURE (AGRS)

## Departments of Plant Agriculture and Animal Biosciences

The Honours Agriculture major combines a core curriculum of agricultural science courses with a wide range of electives focusing on agri-food business, animal and plant production, land stewardship and sustainability. This major allows students to create a curriculum uniquely tailored to their career goals and provides diverse opportunities to explore international agriculture and leading edge agricultural research in animal production, plant biotechnology and pest management. The flexibility provided in semesters 5 and 6 permits students to participate in international exchanges and study abroad program. Students can also incorporate a variety of field trips, experiential learning in the workplace and independent study into their program of studies. The combination of a solid understanding of life science and current agricultural practice with specialized skills and experience provided by this program is greatly valued by prospective employers in this essential sector of Canada's economy.

Code	Title	Credits
<b>Semester 1</b>		
AGR*1110	Introduction to the Agri-Food Systems	1.00
BIOL*1050	Biology of Plants & Animals in Managed Ecosystems	0.50
CHEM*1040	General Chemistry I	0.50
MATH*1080	Elements of Calculus I	0.50
<b>Semester 2</b>		
AGR*2050	Agroecology	0.50
BIOL*1090	Introduction to Molecular and Cellular Biology	0.50
CHEM*1050	General Chemistry II	0.50
FARE*1400	Economics of the Agri-Food System	1.00
<b>Semester 3</b>		
AGR*2320	Soils in Agroecosystems	0.50
AGR*2350	Animal Production Systems, Health and Industry	0.50
AGR*2470	Introduction to Plant Agriculture	0.50
FARE*2700	Survey of Natural Resource Economics	0.50
MBG*2400	Fundamentals of Plant and Animal Genetics	0.50
<b>Semester 4</b>		
ANSC*2340	Structure of Farm Animals	0.50
ENVS*2040	Plant Health and the Environment	0.50
STAT*2040	Statistics I	0.50
1.00 electives or restricted electives		1.00
<b>Semester 5 to 8</b>		
Select one of the following options:		10.00
Option A - Production and Management		
Option B - Research		

## Option A - Production and Management

Code	Title	Credits
<b>Semester 5</b>		
FOOD*3090	Food Science and Human Nutrition	0.50
2.50 electives or restricted electives		2.00
<b>Semester 6</b>		
2.50 electives or restricted electives		2.50
<b>Semester 7</b>		
2.50 electives or restricted electives		2.50
<b>Semester 8</b>		
AGR*4600	Agriculture and Food Issues Problem Solving	1.00
1.50 electives or restricted electives		1.50

## Restricted Electives - Option A

Students should note that some restricted electives require other courses not included among the required courses for the major as prerequisites. Students should consult the most recent undergraduate calendar for specific requirements.

- A minimum of 1.00 credits from the list of restricted electives below:

Code	Title	Credits
AGR*2500	Field Course in International Agriculture	0.50
AGR*3010	Special Studies in Agricultural Science I	0.50
AGR*3450	Research Methods in Agricultural Science	0.50
ANSC*4010	Animal Welfare Judging and Evaluation	0.50
ANSC*4230	Challenges and Opportunities in Dairy Cattle Production	0.50
ANSC*4610	Critical Analysis in Animal Science	0.50
CROP*4260	Crop Science Field Trip	0.50
EDRD*2020	Interpersonal Communication	0.50
EDRD*3050	Agricultural Communication	0.50
EDRD*3140	Organizational Communication	0.50
FARE*3310	Operations Management	0.50
FARE*4220	Advanced Agribusiness Management	0.50
FARE*4310	Resource Economics	0.50
FARE*4360	Marketing Research	0.50
FARE*4550	Independent Studies I	0.50
IAEF*3500	Experiential Education	0.50

- A minimum of 2.00 credits from the following lists:

Code	Title	Credits
Select a minimum of 0.50 credits from the following list:		
CROP*3300	Grain Crops	0.50
CROP*3310	Protein and Oilseed Crops	0.50
CROP*3340	Managed Grasslands	0.50
ENVS*4090	Soil Management	0.50
ENVS*4160	Soil and Nutrient Management	0.50
HORT*2450	Introduction to Turfgrass Science	0.50
HORT*3150	Principles and Applications of Plant Propagation	0.50
HORT*4380	Tropical and Sub-Tropical Crops	0.50
PBIO*3110	Crop Physiology	0.50

PBIO*3750	Plant Tissue Culture	0.50
Select a minimum of 0.50 credits from the following list:		
CROP*4240	Weed Science	0.50
ENVS*3020	Pesticides and the Environment	0.50
ENVS*3210	Plant Pathology	0.50
ENVS*3230	Agroforestry Systems	0.50
Select a minimum of 0.50 credits from the following list:		
ACCT*1220	Introductory Financial Accounting	0.50
ECON*1050	Introductory Microeconomics	0.50
ECON*1100	Introductory Macroeconomics	0.50
ECON*2310	Intermediate Microeconomics	0.50
FARE*2410	Agri-food Markets and Policy	0.50
FARE*3170	Cost-Benefit Analysis	0.50
Students may also take any of the following courses as restricted electives:		
BIOC*2580	Introduction to Biochemistry	0.50
BOT*2100	Life Strategies of Plants	0.50
MBG*2040	Foundations in Molecular Biology and Genetics	0.50
MBG*3060	Quantitative Genetics	0.50
OAGR*2070	Introduction to Organic Agriculture	1.00

- A minimum of 7.00 credits must be at the 3000 level or higher, of which 5.00 credits must be in agricultural science and of which 3.50 credits must be at the 4000 level. Refer to Program Counsellor for list of agricultural science courses.
- A humanities or social science courses (0.50 credits) at the 1000-level or above. See Program Counsellor for acceptable list of courses.

## Option B - Research

Code	Title	Credits
<b>Semester 5</b>		
AGR*3450	Research Methods in Agricultural Science	0.50
FOOD*3090	Food Science and Human Nutrition	0.50
1.50 electives or restricted electives		1.50
<b>Semester 6</b>		
2.50 electives or restricted electives		2.50
<b>Semester 7</b>		
AGR*4450	Research Project I	1.00
1.50 electives or restricted electives		1.50
<b>Semester 8</b>		
AGR*4460	Research Project II	1.00
1.50 electives or restricted electives		1.50

## Restricted Electives - Option B

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1. minimum of 2.00 credits from the list of restricted electives below:

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Select a minimum of 0.50 credits from the following list:		
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CROP*3310	Protein and Oilseed Crops	0.50

CROP*3340	Managed Grasslands	0.50
ENVS*4090	Soil Management	0.50
ENVS*4160	Soil and Nutrient Management	0.50
HORT*2450	Introduction to Turfgrass Science	0.50
HORT*3150	Principles and Applications of Plant Propagation	0.50
HORT*4380	Tropical and Sub-Tropical Crops	0.50
PBIO*3110	Crop Physiology	0.50
PBIO*3750	Plant Tissue Culture	0.50
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ECON*2310	Intermediate Microeconomics	0.50
FARE*2410	Agri-food Markets and Policy	0.50
FARE*3170	Cost-Benefit Analysis	0.50
Students may also take any of the following courses as restricted electives:		
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BOT*2100	Life Strategies of Plants	0.50
MBG*2040	Foundations in Molecular Biology and Genetics	0.50
MBG*3060	Quantitative Genetics	0.50
OAGR*2070	Introduction to Organic Agriculture	1.00

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