

AGRICULTURE (AGS)

AGS-1100 Foundations in Agriculture (3 Credits)

An introduction to agriculture industries in Western Canada including agronomy, animal science and agriculture business. Discussions and projects will include identification of sustainable agriculture science and economic principles, interaction between industries, and evolving career opportunities.

Instruction (3.0), Lab (2.0)

Requisite courses: Take AGS-1100L (Required, Concurrent).

AGS-1150 Agriculture Finance (3 Credits)

An introduction to finance concepts and their application in an agricultural context. Topics include the interpretation of financial information, terminology, investment analysis, sensitivity analysis, and asset valuation. Conceptual learning will be applied with practical computer lab exercises.

Instruction (3.0), Lab (2.0)

Equivalent to AGR-2250, AGR-250, AGR-253, AGR-283, AGR-150.

Requisite courses: Take AGS-1150L (Required, Concurrent).

AGS-2250 Canadian and World Agriculture (3 Credits)

An examination of domestic and international agriculture with a focus on the role of Canadian agriculture within a global context. Agriculture policies, concessions and trade barriers, market stabilization and international price determination will be explored to further define the international role of Canadian agriculture.

Instruction (3)

Equivalent to AEM-2270.

AGS-2251 Agriculture Policy (3 Credits)

An analysis of the policies involved in agricultural enterprises. Includes economic principles, national and international trade agreements, land tenure, water management, livestock and grain policies, as well as policies related to agricultural marketing boards. Aspects of risk, trade, innovation, and development of provincial, federal, and international policy-based initiatives will be examined.

Instruction (3)

Equivalent to AEM-2280.

Requisite courses: Take ECN-1180 (Required, Previous).

AGS-2255 Sustainable Agriculture (3 Credits)

A study of theory and practical applications for optimizing long-term returns in agricultural systems while maintaining the long-term viability of natural resources. Topics include possible contaminants in natural, urban and rural environments, preservation of soil, air and water, best practices for resource management and social license. A diversity of farming systems, including conventional, organic, urban agriculture and agroforestry are covered. Emphasis is on the development of an Environmental Farm Plan that combines field assessments with best management practices.

Instruction (3.0), Lab (2.0)

Equivalent to AGR-2261, AGR-261, AGR-258.

Requisite courses: Take BIO-1167 (Required, Previous). Take AGS-2255L (Required, Concurrent).

AGS-2280 Precision Agriculture I (3 Credits)

An introduction to the concepts and applications of map reading, remote sensing, Global Navigation Satellite Systems (GNSS) and Geographic Information System (GIS) technologies for precision agricultural applications. Topics include raster and vector data structures, geo-referencing, map and digital image interpretation, spatial data acquisition methods, data integration and basic analysis techniques for data-driven agricultural applications.

Instruction (3.0), Lab (2.0)

Equivalent to AGR-2256.

Requisite courses: Take AGS-2280L (Required, Concurrent).

AGS-3381 Agriculture Equipment (3 Credits)

A study of agriculture equipment used for field crops, special crops and forage production in Western Canada. Equipment includes tractors, tillage, seeding, chemical application, forage harvesting, and grain harvesting equipment. Emphasis placed on operation, maintenance and adjustment for optimum performance.

Instruction (3.0), Lab (2.0)

Requisite courses: AGS-3381L (Required, Concurrent).

AGS-3382 Telematics and Sensors (3 Credits)

Introduces a variety of sensing technologies to monitor variables affecting crop production. A focus on telematics, communication technologies and sensor integration protocols.

Instruction (3.0), Lab (2.0)

Requisite courses: Take AGS-3385 (Required, Previous). Take AGS-3382L (Required, Concurrent).

AGS-3385 Precision Agriculture II (3 Credits)

This course builds on concepts and applications covered in Precision Agriculture I, providing students with a more detailed understanding of data, technologies, and techniques in data driven agriculture. Students will obtain firsthand experience applying technology and techniques to real world agriculture problems with an emphasis on current industry trends.

Instruction (3.0), Lab (2.0)

Requisite courses: Take AGS-2280 (Required, Previous). Take AGS-3385L (Required, Concurrent).

AGS-4450 Agriculture Issues (3 Credits)

Changing demands of agriculture and food production, emerging technologies, consumer preferences and food safety, diversification, government policy and social license are objectively evaluated. Student led research, discussion, and debate on current agriculture issues.

Instruction (3)

Equivalent to AGR-1171, IRR-1152, IRR-152, AGR-193.

AGS-4481 Crop Production Technology (3 Credits)

A study of current crop production technology, its function and maintenance, potential, and application. Real data sets are evaluated using current crop production technology to make agronomic recommendations.

Instruction (3.0), Lab (2.0)

Requisite courses: Take AGS-3385 (Required, Previous). Take AGS-4481L (Required, Concurrent).

AGS-4483 Harvest and Crop Storage Technology (3 Credits)

A study of current agriculture harvesting and storage equipment technology, its function and maintenance, potential and application. Real data sets are evaluated using current harvest and storage technology to make agronomic recommendations.

Instruction (3.0), Lab (2.0)

Requisite courses: Take AGS-3385 (Required, Previous). Take AGS-4483L (Required, Concurrent).

AGS-4485 Livestock Technology (3 Credits)

A study of current agriculture livestock equipment technology, its function and maintenance, potential, and application. Real data sets are evaluated using current livestock technology to make production recommendations.

Instruction (3.0), Lab (2.0)

Requisite courses: Take AGS-3385 (Required, Previous). Take AGS-4485L (Required, Concurrent).