



## Program Planning Guide

Current and past Program Planning Guides are available on the UofL website at [www.uleth.ca/ross/ppgs/ppg.html](http://www.uleth.ca/ross/ppgs/ppg.html)

Calendar Year: 2012/2013

Faculty: Arts & Science

### About the Multidisciplinary Major in Agricultural Studies for the Post-Diploma B.Sc.

The Post-Diploma B.Sc. degree program in Agricultural Studies employs a multidisciplinary perspective, including courses in Agricultural Studies, Biological Sciences, Economics and Geography. The multidisciplinary nature of the program is complementary to the technical training from agricultural colleges and creates a distinctive program in agricultural education. This program is enriched by the chance for students to gain practical skills through Co-op studies, summer employment opportunities and Applied and Independent Studies with professors and scientists.

### Approved Two-Year College Diplomas

At the time of printing (March 2012), the following two-year college diplomas are approved for admission:

#### **Assiniboine Community College**

Agribusiness

#### **Grande Prairie Regional College**

Animal Health Technology

#### **Lakeland College**

Agri-Business

Agro-Environmental Technology

Animal Health Technology

Animal Science Technology

Crop Technology

Livestock Production

#### **Lethbridge College**

Agricultural Technology: Animal Science and  
Plant and Soil Science

#### **Northern Alberta Institute of Technology (NAIT)**

Animal Health Technology

Golf Course Turfgrass Management

#### **Olds College**

Agricultural Management: Production,  
Finance, and Marketing

Animal Health Technology

Environmental Horticulture: Arboriculture and  
Landscape Management

Land and Water Resources: Land

Reclamation, Environmental Stewardship,  
and Rural Land Use Planning

Production Horticulture

Turfgrass Management

#### **Saskatchewan Institute of Applied Science and Technology (SIAST)**

Veterinary Technology

For a complete listing of approved diploma programs, including discontinued diplomas still acceptable for admission, see UofL's Post-Diploma Degree Programs website: [www.uleth.ca/postdiploma](http://www.uleth.ca/postdiploma)

### Alberta Institute of Agrologists (AIA)

A student who successfully completes this degree program and major may apply to the Alberta Institute of Agrologists (AIA) to be registered as a Professional Agrologist within Alberta. Students should contact the Coordinator of Agricultural Studies early in the program for further information.

### Where to Go for More Information

Students should contact the Coordinator of Agricultural Studies and the Student Program Services Office (SU060 | phone: 403-329-5106) for further information.

### Co-operative Education

A Co-op option, requiring three work terms, is available. Students interested in the Co-operative Education/Internship program should contact the Coordinator of Co-operative Education in the Career Resources Centre (AH154 | phone: 403-382-7154) for further information.

### Program Requirements

The post-diploma B.Sc. degree with a major in Agricultural Studies requires at least 20 semester courses with a minimum cumulative grade point average of 2.00.

### Transfer Credit

Remember that you may use both University of Lethbridge credit and credit transferred from another college or university to meet degree and major requirements. Transfer credit may be either specified or unspecified. Specified credit is indicated on your transcript by the subject name and the specific number of the course, e.g., Biology 1010, Geography 1000, etc. Unspecified credit (1XXX, 2XXX, etc.) is indicated by the subject name and level of the course in parentheses, e.g., Biology (1000 level), Geography (2000 level), etc.

### Unspecified Course Credit

Unspecified course credit means that the University of Lethbridge does not offer the same course you transferred in, but we recognize it and treat it as a regular course. An unspecified course would count as one of your maximum of 20 from one department, but it could not meet a specific course requirement. For example, if Biology 1010 is required in your program, you could not use Biology (1000 level) to fulfill that requirement. Students with unspecified transfer credit need to consult an Academic Advisor to establish how the transfer credit fits in the degree program. This should be done as soon as possible after transfer credit is awarded.

## Program Worksheet

Name: \_\_\_\_\_ ID: \_\_\_\_\_

### A. Required core (12 courses):

- \_\_\_\_\_ 1. Agricultural Studies 1000 - The Evolution of Agriculture
- \_\_\_\_\_ 2. Agricultural Studies 3300 - Modelling of Agricultural Systems
- \_\_\_\_\_ 3. Agricultural Studies 4000 - Seminar in Agricultural Issues
- \_\_\_\_\_ 4. Biology 1010 - Cellular Basis of Life
- \_\_\_\_\_ 5. Economics 1010 - Introduction to Microeconomics
- \_\_\_\_\_ 6. Economics 3220 - Environmental Economics
- \_\_\_\_\_ 7. Economics 3300 - Agricultural Policy I
- \_\_\_\_\_ 8. \*Geography 3210 - Agricultural Geography
- \_\_\_\_\_ 9. Statistics 1770 - Introduction to Probability and Statistics
- \_\_\_\_\_ 10. One of:
  - \_\_\_\_\_ Philosophy 2001 - Introduction to Ethics
  - \_\_\_\_\_ Philosophy 2236 - Environmental Philosophy
  - \_\_\_\_\_ \*\*Philosophy 3402 - Biomedical Ethics
- \_\_\_\_\_ 11. One of:
  - \_\_\_\_\_ English 1900 - Introduction to Language and Literature
  - \_\_\_\_\_ History 1000 - Western Civilization
  - \_\_\_\_\_ Philosophy 1000 - Introduction to Philosophy
  - \_\_\_\_\_ Religious Studies 1000 - Introduction to World Religions
- \_\_\_\_\_ 12. \*\* One additional course from List I (Fine Arts and Humanities Courses)

\* Students in the Post-Diploma B.Sc. in Agricultural Studies are considered to have the background that satisfies the Geography prerequisite (Geography 2210) for Geography 3210.

\*\* Students should choose Philosophy 1000 as background preparation if choosing Philosophy 3402.

### B. Choose one of the following streams, each consisting of eight courses:

#### Biological Sciences Stream (EIGHT courses)

- \_\_\_\_\_ 1. \* Biology 2000 - Principles of Genetics
- \_\_\_\_\_ 2. \* Biology 2200 - Principles of Ecology
- \_\_\_\_\_ 3. Chemistry 1110 - Chemistry for Life Sciences I
- \_\_\_\_\_ 4. Chemistry 2120 - Chemistry for Life Sciences II
- \_\_\_\_\_ 5-8. Four of:
  - \_\_\_\_\_ Biology 3000 - Gene Expression and Regulation
  - \_\_\_\_\_ Biology 3105 - Signal Transduction
  - \_\_\_\_\_ \*\* Biology 3310 - Developmental Biology
  - \_\_\_\_\_ Biology 3400 - Principles of Microbiology
  - \_\_\_\_\_ Biology 3420 - Animal Physiology
  - \_\_\_\_\_ Biology 3460 - Plant Physiology
  - \_\_\_\_\_ Biology 3520 - Invertebrate Zoology
  - \_\_\_\_\_ Biology 3530 - Vertebrate Zoology
  - \_\_\_\_\_ Biology 3560 - Integrative Plant Biology
  - \_\_\_\_\_ \*\*\* Biology 3610 - Prairie Conservation
  - \_\_\_\_\_ Biology 3700 - Ecosystem and Community Ecology
  - \_\_\_\_\_ Biology 4100 - Advances in Agricultural Biotechnology
  - \_\_\_\_\_ \*\*\*\* Biology 4170 - Plant Biotechnology
  - \_\_\_\_\_ Biology 4560 - Plant Development

\* Students in the Post-Diploma B.Sc. in Agricultural Studies are considered to have the background that satisfies the prerequisite for each of these courses.

\*\* Prerequisite required: Biochemistry 2000.

\*\*\* Prerequisite required: Environmental Science 2000.

\*\*\*\* Prerequisite required: Biology 3210.

**Note:** Students choosing to complete courses in the Biological Sciences Stream that require additional prerequisites will need to complete more than the minimum 20 courses for the Post-Diploma B.Sc.

**Note:** Students may count Special Topics courses (i.e., Biology 3850 and Biology 4850) toward the Biological Sciences Stream provided:

1. They are clearly related to the Stream; and,
2. They are approved by the Coordinator of Agricultural Studies.

**Note:** Students may include a maximum of two Special Topics courses in their degree program.

**Geography Stream (EIGHT courses)**

- \_\_\_\_\_ 1-8. Eight of:
- \_\_\_\_\_ Environmental Science 2000 - Fundamentals of Environmental Science
  - \_\_\_\_\_ \* Geography 2300 - Weather and Climate
  - \_\_\_\_\_ \* Geography 2700 - Geographical Data and Analysis
  - \_\_\_\_\_ \* Geography 2735 - Introduction to Geographical Information Science
  - \_\_\_\_\_ Geography 3075 - Environmental Resources Management
  - \_\_\_\_\_ Geography 3080 - Soils
  - \_\_\_\_\_ Geography 3400 - Hydrology I
  - \_\_\_\_\_ Geography 3700 - Cartography
  - \_\_\_\_\_ Geography 3720 - Remote Sensing
  - \_\_\_\_\_ Geography 3740 - Geographical Information Systems
  - \_\_\_\_\_ Geography 4060 - Agricultural Soil Management

- \_\_\_\_\_ Geography 4065 - Irrigation Science
- \_\_\_\_\_ Geography 4200 - Project in Agricultural Geography
- \_\_\_\_\_ Geography 4400 - Hydrology II
- \_\_\_\_\_ Geography 4415 - Integrated Watershed Management
- \_\_\_\_\_ Geography 4725 - Advanced Remote Sensing
- \_\_\_\_\_ Geography 4740 - Advanced Geographical Information Systems

\* Students in the Post-Diploma B.Sc. in Agricultural Studies are considered to have the background that satisfies the prerequisite for each of these courses.

- Note:** Students may count Special Topics courses (i.e., Geography 3850 and Geography 4850) toward the Geography stream provided:
1. They are clearly related to the stream; and,
  2. They are approved by the Coordinator of Agricultural Studies.

**Note:** Students wishing to pursue the Concentration in Geographical Information Science must complete Geography 2700, Geography 2735, Geography 3720, and Geography 3740 among the eight courses required in the Geography Stream.

**Note:** Students should refer to the current Calendar to ensure they have completed the prerequisites for the above courses.

**Optional Concentrations**

**Concentration: Agricultural Business**

Students in the Post-Diploma B.Sc. in Agricultural Studies degree program may declare a Concentration in Agricultural Business.

In addition to the minimum of 20 courses required for this degree program, students must complete a minimum of FIVE courses for the Concentration in Agricultural Business as follows:

**a. For holders of diplomas other than diplomas in Agribusiness, the required courses include:**

- \_\_\_\_\_ 1. Management 2020 - Marketing
- \_\_\_\_\_ 2. Management 2100 - Introductory Accounting
- \_\_\_\_\_ 3-5. Three of:
  - \_\_\_\_\_ Economics 3030 - Managerial Economics
  - \_\_\_\_\_ Economics 3080/Management 3780 - Principles of Industrial Organization I
  - \_\_\_\_\_ Management 3010 - Management Law
  - \_\_\_\_\_ Political Science 2210 - Canadian Politics and Government
  - \_\_\_\_\_ \* Political Science 3420/Management 3050 - Human Resource Management

\* Has prerequisites: One of Management 2030 or one 2000-level Political Science course (3.0 credit hours), and one of Writing 1000 or a university English course (3.0 credit hours).

**b. For holders of diplomas in Agribusiness, the required courses include:**

- \_\_\_\_\_ 1. \* Management 3040 - Finance
- \_\_\_\_\_ 2. One of:
  - \_\_\_\_\_ \*\* Management 3470 - Corporate Finance
  - \_\_\_\_\_ \*\*\* Management 4230 - Marketing Management
- \_\_\_\_\_ 3-5. Three of:
  - \_\_\_\_\_ Economics 3030 - Managerial Economics
  - \_\_\_\_\_ Economics 3080/Management 3780 - Principles of Industrial Organization I
  - \_\_\_\_\_ Management 3061 - Information Systems and Management
  - \_\_\_\_\_ \*\*\*\* Management 3210 - Consumer Behaviour
  - \_\_\_\_\_ Management 4220 - Cross-Cultural Marketing
  - \_\_\_\_\_ Political Science 2210 - Canadian Politics and Government

\* Has prerequisite: Economics 1012.

\*\* Has corequisite: One of Economics 2900 or Statistics 2780.

\*\*\* Has prerequisite: Management 3220 (which requires one of Economics 2900 or Statistics 2780).

\*\*\*\* One of Writing 1000 or a university English course (3.0 credit hours).

**Note:** Students who hold diplomas in Agribusiness may not receive credit for Management 1000, Management 2020, Management 2030, Management 2060, or Management 2400 at the University of Lethbridge.

Students may not double count courses required for the Concentration in Agricultural Business in fulfilling requirements for the General Liberal Education core. Students must select a List II course that is not required for the Concentration in Agricultural Business.

For students who complete, in addition to the minimum 20 courses for this B.Sc. degree program, all five courses (as specified in a. or b. above), the Concentration in Agricultural Business will be acknowledged on the official transcript.

**Concentration: Geographical Information Science**

Students in the Post-Diploma B.Sc. in Agricultural Studies degree program may declare a Concentration in Geographical Information Science.

**Required courses:**

- \_\_\_\_\_ 1-4. Four of:
  - \_\_\_\_\_ \* Geography 3700 - Cartography OR Geography 4730 - Spatial Statistics
  - \_\_\_\_\_ \* Geography 4400 - Hydrology II OR \*Geography 4415 - Integrated Watershed Management
  - \_\_\_\_\_ Geography 4700 - Advanced Computer Mapping
  - \_\_\_\_\_ Geography 4710 - Remote Sensing Field Techniques
  - \_\_\_\_\_ \* Geography 4725 - Advanced Remote Sensing
  - \_\_\_\_\_ \* Geography 4740 - Advanced Geographical Information Systems
  - \_\_\_\_\_ Geography 4751 - Seminar in Spatial Modelling
  - \_\_\_\_\_ Geography 4752 - Seminar in Geographical Information Systems
  - \_\_\_\_\_ Geography 4753 - Seminar in Remote Sensing

**5. Required cognate:**

- \_\_\_\_\_ Computer Science 1620 - Fundamentals of Programming I

\* Students may not double count courses required for the Concentration in Geographical Information Science in fulfilling requirements for the Geography Stream. In such cases, students must select another option from the Geography Stream.

For students who complete, in addition to the minimum 20 courses for this B.Sc. degree program, all five courses, the Concentration in Geographical Information Science will be acknowledged on the official transcript.

## Sample Sequencing Plan

Shown below is a sample sequence of courses for your degree. If you follow this plan, you should be able to graduate in two years, provided you complete five courses per semester. This is just one example of how you could complete your major and degree requirements; you may find that a different sequence works as well as this one.

### Biological Sciences Stream

#### Year 1, Fall

Agricultural Studies 1000  
 Biology 1010  
 Chemistry 1110  
 Economics 1010  
 One of: English 1900,  
 History 1000, Philosophy 1000,  
 Religious Studies 1000

#### Year 2, Fall

Agricultural Studies 3300  
 Biology 2200  
 Biology 3000/4000 level  
 Economics 3300  
 Geography 3210<sup>2</sup>

#### Year 1, Spring

Biology 2000  
 Chemistry 2120  
 Economics 3220  
 One of<sup>1</sup>: Philosophy 2001,  
 Philosophy 2236 or  
 Philosophy 3402  
 Statistics 1770

#### Year 2, Spring

Agricultural Studies 4000  
 Biology 3000/4000 level  
 Biology 3000/4000 level  
 Biology 3000/4000 level  
 GLER course (List I)

<sup>1</sup> Semester of offering may vary.

<sup>2</sup> Students in the Post-Diploma B.Sc. in Agricultural Studies are considered to have the background that satisfies the Geography prerequisite (Geography 2210) for Geography 3210. Semester of offering may vary.

**Note:** Students choosing to complete requirements for the Concentration in Agricultural Business or in Geographical Information Science should contact the Program Coordinator and/or Arts and Science Student Program Services early in their program for assistance in planning sequencing for the required courses.

### Terms Used

**GLER course:** A course that could count toward the General Liberal Education Requirement. You may use courses in your major towards this 12-course requirement. See the 2012/2013 University of Lethbridge Calendar, Part 4 - Academic Regulations (p. 91) for complete information.

**Elective:** A course that you may choose freely from all those available and applicable to your program. Use courses inside or outside your major, bearing in mind any restrictions that may apply (e.g., a maximum of 20 courses from any one department).

### Geography Stream

#### Year 1, Fall

Agricultural Studies 1000  
 Biology 1010  
 Economics 1010  
 One of: English 1900,  
 History 1000, Philosophy 1000,  
 Religious Studies 1000  
 GLER course (List I)

#### Year 2, Fall

Agricultural Studies 3300  
 Economics 3300  
 Geography 3210<sup>3</sup>  
 Required Stream course  
 Required Stream course

#### Year 1, Spring

Economics 3220  
 One of<sup>1</sup>: Philosophy 2001,  
 Philosophy 2236 or  
 Philosophy 3402  
 Statistics 1770  
 Required Stream course (2000 level)<sup>2</sup>  
 Required Stream course (2000 level)<sup>2</sup>

#### Year 2, Spring

Agricultural Studies 4000  
 Required Stream course  
 Required Stream course  
 Required Stream course  
 Required Stream course

<sup>1</sup> Semester of offering may vary.

<sup>2</sup> Students should complete 2000-level courses in order to satisfy prerequisites for other chosen courses in the Geography Stream.

<sup>3</sup> Students in the Post-Diploma B.Sc. in Agricultural Studies are considered to have the background that satisfies the Geography prerequisite (Geography 2210) for Geography 3210. Semester of offering may vary.

**Note:** Students choosing to complete requirements for the Concentration in Agricultural Business or in Geographical Information Science should contact the Program Coordinator and/or Arts and Science Student Program Services early in their program for assistance in planning sequencing for the required courses.

