

**Calendar Year: 2003-2004
Faculty: Arts & Science**

The multidisciplinary major in Agricultural Studies for the B.Sc. includes courses in Agricultural Studies, Biological Sciences and Geography.

This program has been recognized by the Alberta Institute of Agrologists (AIA) which is the provincial organization representing agrologists. Students who complete a University of Lethbridge B.Sc. degree with the major in Agricultural Studies will have a degree recognized by the AIA.

High School Courses

Several university-level science courses have high school-level courses as recommended background or prerequisites. Students are advised to complete recommended background courses before registering in the university-level course; students *must* have successfully completed prerequisites before they may register in the university-level course.

Students pursuing an Agricultural Studies major should note the following recommended/required high school courses.

UofL course High school course

Biology	
1010	Biology 30 , and Chemistry 30 or 0500
1020	<i>Recommended: Biology 30</i>
2000	Mathematics 30 or Pure Mathematics 30* (and Biology 1010)
2200	Mathematics 30 or Pure Mathematics 30* (and Biology 1020)

Chemistry

- 1000 Chemistry 30 or 0500, and Mathematics 30 or Pure Mathematics 30*
Recommended: Mathematics 31
- 2100 Chemistry 30 or 0500
Recommended: Chemistry 1000

Computer Science

- 1620 Mathematics 30 or Pure Mathematics 30*

Mathematics

- 1560 Mathematics 30 or Pure Mathematics 30*
Recommended: Mathematics 31 and a blended grade of at least 75% in Mathematics 30 or Pure Mathematics 30

Physics

- 1050 Mathematics 30 or Pure Mathematics 30*
Recommended: A course in physical science at the 20 level or above

Statistics

- 1770 Mathematics 30 or Pure Mathematics 30*

**Students may use both Applied Mathematics 30 and a minimum grade of 75% in Athabasca University's Mathematics 101 instead of Mathematics 30 or Pure Mathematics 30.*

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 (B610; tel. 403-382-7154) for further information.

Program Planning Guide



The University of Lethbridge

Current and past Program Planning Guides are available on the UofL website at: http://www.uleth.ca/reg/ro_quick_links.html

This program guide is designed to help you plan your degree program. The information should help you keep track of your progress in your major, electives and all your degree requirements. Please remember that this is only a guide and not a graduation check. Students are responsible for the accuracy of their own programs. The guide should be used in conjunction with the University of Lethbridge Calendar, which is the final authority on all questions regarding program requirements and academic regulations.

Name: _____ ID: _____ E-Mail: _____

Advisor: _____ Date: _____ Calendar Year: 2003-2004

REQUIREMENTS FOR THE B.Sc. - AGRICULTURAL STUDIES MAJOR

The Program

The B.Sc. degree with a multidisciplinary major in Agricultural Studies requires 40 semester courses, including 20 courses in the major. Students in this program must complete, in addition to the 20-course major, a Technical Studies Semester of practical agricultural training (equivalent of five courses, 15.0 credit hours) at Olds College or an approved equivalent program.

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, 2000, etc. Unspecified credit (1XXX, 2XXX, etc.) is indicated by the subject name and level of the course in parentheses, e.g., Biology (1000 level), Biology (2000 level), etc.

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 1020 is required in your program, you could not use Biology (1000 level) to fulfill that requirement.

How do I use the guide?

When you have met one of the requirements, place a check mark beside it. When all the requirements are checked, you should have completed the major.

Required Courses:

Students must complete a total of 20 courses for the major: a core of 12 courses plus eight courses from the subfields, as indicated below.

Required Core (12 courses):

- _____ 1. Agricultural Studies 1000 - The Evolution of Agriculture
- _____ 2. *Agricultural Studies 3300 - Modelling of Agricultural Systems
- _____ 3. Agricultural Studies 4000 - Seminars in Agricultural Issues Series
- _____ 4. Agricultural Studies 4300 - Advanced Modelling of Agricultural Systems
- _____ 5. Biology 1010 - Cellular Basis of Life
- _____ 6. Biology 1020 - Diversity of Life
- _____ 7. Biology 2000 - Principles of Genetics
- _____ 8. Chemistry 2100 - Elements of Organic Chemistry I
- _____ 9. Economics 1010 (2001) - Introduction to Microeconomics
- _____ 10. Geography 1000 - Introduction to Physical Geography
- _____ 11. Statistics 1770 - Introduction to Probability and Statistics
- _____ 12. ONE of:
 - _____ Computer Science 1620 - Introduction to a Programming Language
 - _____ Mathematics 1560 - Calculus I
 - _____ Physics 1050 - Introduction to Biophysics

* Students who have taken Agricultural Studies 2000 prior to 2000-2001 will have met this requirement.

Subfields:

The remaining EIGHT courses must include:

- _____ 1. At least SIX courses from one of the following subfields (Biological Sciences or Geography).
- _____ 2. At least TWO courses from the other subfield.
- _____ 3. At least FOUR courses must be at the 3000/4000 level:
 1. _____
 2. _____
 3. _____
 4. _____

A. Biological Sciences Subfield:

- _____ Biology 2200 - Principles of Ecology
- _____ Biology 3000 - Molecular Genetics
- _____ Biology 3110 - Cell Regulation
- _____ Biology 3200 - Principles of Microbiology
- _____ Biology 3310 - Developmental Biology
- _____ Biology 3420 - Animal Physiology I
- _____ Biology 3460 - Plant Physiology
- _____ Biology 3520 - Invertebrate Zoology
- _____ Biology 3530 - Vertebrate Zoology
- _____ Biology 3560 - Plant Anatomy and Morphology
- _____ Biology 3600 - Evolutionary Ecology
- _____ Biology 3610 - Prairie Conservation
- _____ Biology 3700 - Ecosystem and Community Ecology
- _____ Biology 4100 - Advances in Agricultural Biotechnology
- _____ Biology 4110 - Advances in Genetics, Molecular and Cellular Biology
- _____ Biology 4170 - Plant Biotechnology
- _____ Biology 4560 - Plant Development
- _____ Biology 4770 - Plant Systematics and Evolution
- _____ Chemistry 2200 - Elements of Organic Chemistry II

Note: *Applied Studies, Independent Studies and Special Topics courses may NOT be used to fulfill requirements in the Biological Sciences subfield. Students are encouraged to consider such courses in their degree programs.*

B. Geography Subfield:

- _____ Archaeology 2100 - Series in Archaeology: Archaeology of Agriculture
- _____ Environmental Science 2000 - Fundamentals of Environmental Science
- _____ Geography 2015 - Weather and Climate
- _____ Geography 2030 - Geomorphology
- _____ Geography 2700 - Geographical Data and Analysis
- _____ Geography 3075 - Environmental Resources Management
- _____ Geography 3210 - Agricultural Geography
- _____ Geography 3700 - Cartography
- _____ Geography 3720 - Introduction to Remote Sensing
- _____ Geography 3740 - Geographic Information Systems
- _____ Geography 4012 - Hydrology
- _____ Geography 4015 - Integrated Watershed Management
- _____ Geography 4050 - Soils

- _____ Geography 4200 - Project in Agricultural Geography
- _____ Geography 4725 - Advanced Remote Sensing
- _____ Geography 4740 - Applied Geographic Information Systems
- _____ Geography 4760 - Agricultural Soil Management
- _____ Geography 4770 - Irrigation Science
- _____ Geology 2060 - Physical Geology

Note: *Applied Studies, Independent Studies and Special Topics courses may be used to fulfill requirements in the Geography subfield provided:*

1. *They are clearly related to the subfield; and,*
2. *They are approved by the Coordinator of the program.*

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

Technical Studies Semester:

- _____ One semester at Olds College (or another approved equivalent program).

Students are required to complete a semester of study at Olds College consisting of 42 college credits, with a minimum of six credits in each of five subject areas: Soils, Plants, Animal Science, Agricultural Machinery and Farm Management. The Technical Studies Semester counts as the equivalent of 15.0 credit hours at the University of Lethbridge.

The Technical Studies Semester should be taken after at least 20 university courses have been completed and prior to registration in the final 10 courses for the degree.

Students must have the college course selection approved by the Coordinator of Agricultural Studies. Alternate arrangements may be made in special cases. Further details are available from the Coordinator.

Students may not receive credit for courses at the University of Lethbridge for which close equivalents have been taken at an approved college. Students must ensure that their course selection has been approved by the Coordinator of Agricultural Studies.

Students desiring recognition in professional societies are advised to include an ethics course in their electives (such as Philosophy 3402 - Biomedical Ethics).

Concentration: Agricultural Business

Agricultural Studies majors in the B.Sc. degree program may declare a Concentration in Agricultural Business.

Students must complete a minimum of FIVE courses for the Concentration in Agricultural Business.

Required courses include:

- _____ Management 2100 - Introductory Accounting
- _____ Management 3020 - Marketing
- _____ THREE of:
 - _____ Economics 3030 - Managerial Economics
 - _____ Economics 3080/Management 3780 - Principles of Industrial Organization
 - _____ Management 3010 - Management Law
 - _____ Political Science 2410 - Public Administration
 - _____ Political Science 3421/Management 3051 - Managing People and Organizations

For students who complete all requirements, the Concentration in Agricultural Business will be acknowledged on the official transcript.

SAMPLE COURSE SEQUENCING PLAN

B.Sc. - AGRICULTURAL STUDIES

With Biological Sciences as the Six-Course Subfield

Shown below is a sample sequence of courses for your degree. If you follow this plan, you should be able to graduate in four 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.

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 2003-2004 University of Lethbridge Calendar, Part 4 - Academic Regulations (pp.71-74) 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).

	FALL	SPRING
YEAR ONE	Agricultural Studies 1000 Biology 1010 Economics 1010 (2001) Geography 1000 ONE of: Computer Science 1620, Mathematics 1560, Physics 1050	Biology 1020 Biology 2000 Second Subfield course GLER course (List I) GLER course (List II)

	FALL	SPRING
YEAR TWO	Biology 2200 (Main Subfield course) Chemistry 2100 Statistics 1770 GLER course (List I) Elective	Main Subfield course 3000/4000 level Second Subfield course GLER course (List I) Elective Elective

	FALL	SPRING
YEAR THREE	Agricultural Studies 3300* Main Subfield course 3000/4000 level Science elective 3000/4000 level Science elective Science elective	Technical Studies Semester (15.0 credit hours)

	FALL	SPRING
YEAR FOUR	Main Subfield course 3000/4000 level Main Subfield course Science elective 3000/4000 level Science elective Science elective	Agricultural Studies 4000 Agricultural Studies 4300** Main Subfield course 3000/4000 level Science elective 3000/4000 level Elective

* Students who have taken Agricultural Studies 2000 prior to 2000-2001 will have met this requirement and should choose an Arts and Science elective. Students may take Agricultural Studies 3300 in Year 4 Fall instead of a Science elective which would then be taken in Year 3 Fall.

** Students should consult the Coordinator of Agricultural Studies regarding the semester of offering of this course.

Reminder: For the B.Sc., students must include, among the 40 courses, at least 25 courses from the list Science Courses (2003-2004 Calendar, Part 7, Section 19, p. 97 and Part 4, Section 5, List III: Science Courses, pp. 73-74).

Note: Students choosing to complete requirements for the Concentration in Agricultural Business should choose those prescribed courses in place of non-science electives. Courses in Economics or Political Science from the "Three of" list will also fulfill List II: Social Science Courses for the General Liberal Education Requirement.

SAMPLE COURSE SEQUENCING PLAN

B.Sc. - AGRICULTURAL STUDIES

With Geography as the Six-Course Subfield

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YEAR ONE	FALL	SPRING
	Agricultural Studies 1000 Biology 1010 Economics 1010 (2001) Geography 1000 ONE of: Computer Science 1620, Mathematics 1560, Physics 1050	Biology 1020 Biology 2000 Science elective GLER course (List I) GLER course (List II)
YEAR TWO	FALL	SPRING
	Chemistry 2100 TWO of: Geography 2015, 2030 or 2700 (Main Subfield course) GLER course (List I) Science elective	Statistics 1770 Second Subfield course GLER course (List I) Science elective Elective
YEAR THREE	FALL	SPRING
	Agricultural Studies 3300* Main Subfield course 3000/4000 level Second Subfield course Science elective 3000/4000 level GLER course (List II) or Elective	Technical Studies Semester (15.0 credit hours)
YEAR FOUR	FALL	SPRING
	Main Subfield course 3000/4000 level Main Subfield course 3000/4000 level Science elective 3000/4000 level Science elective GLER course (List II) or Elective	Agricultural Studies 4000 Agricultural Studies 4300** Main Subfield course 3000/4000 level Science elective 3000/4000 level Science elective

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This is a planning guide and not a graduation check or guarantee of course offerings. You should have a program check done in your final year of studies.

