

Graduate Handbook

2019 - 2020

**RESOURCE ECONOMICS
AND
ENVIRONMENTAL
SOCIOLOGY**



UNIVERSITY OF ALBERTA
**FACULTY OF AGRICULTURAL,
LIFE & ENVIRONMENTAL SCIENCES**
Department of Resource Economics and Environmental Sociology

**Department of Resource Economics
and Environmental Sociology (REES)
Graduate Handbook
2019 - 2020**

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INTRODUCTION

Graduate education in the Department of Resource Economics and Environmental Sociology (REES) at the University of Alberta provides excellent training in applied economics and rural/environmental sociology, for careers in private business, international and government service or academic institutions. Three graduate degrees are offered: Doctor of Philosophy (PhD), Master of Science (MSc), and Master of Agriculture (MAg). The PhD and MSc degrees are offered in the sub-disciplines of Agricultural and Resource Economics, Forest Economics and Rural/Environmental Sociology, while the MAg degree is offered in Agricultural Economics and Rural Sociology. In addition, the department offers an interdisciplinary Master of Science in Risk and Community Resilience as well as a joint MBA/Master of Agriculture with the School of Business. Areas of research emphasis within the department include: the economics of agricultural markets and price behaviour, production economics, agricultural development and development economics, environmental and natural resource economics, forest economics, rural sociology, and environmental and natural resource sociology.

This graduate handbook outlines in detail the faculty resources, regulations, procedures, program requirements, and courses available to achieve the purpose and goals of graduate education through the Department. It is a supplement to graduate program requirements and regulations as set forth by the Faculty of Graduate Studies and Research.

Note: The Department of Resource Economics and Environmental Sociology is the name for the former Department of Rural Economy. The name was changed in May 2011 to better reflect the academic disciplines addressed within the Department.

1. DEPARTMENT STAFF

1.1 Full-Time Academic Staff

W.L. Adamowicz, PhD (Minnesota); Professor and Vice-Dean; Environmental Economics, Econometrics, Forest Economics.

H. An, PhD (California-Davis); Associate Professor and Associate Chair (Graduate Studies); Agricultural and Resource Economics.

S. Anders, PhD (Justus-Liebig University, Germany); Professor; Value-Added Meat Marketing.

P.C. Boxall, PhD (Alberta); Professor; Environmental Economics, Resource & Forest Economics.

D.J. Davidson, PhD (Wisconsin-Madison); Professor; The State and Environmental Policy, Globalization, First Nations Issues. Joint appointment with the Department of Renewable Resources.

X. Fan, PhD (Cornell); Assistant Professor; Food and Agribusiness Management.

E.W. Goddard, PhD (Latrobe, Australia); Professor and Cooperative Chair; Agricultural Marketing and Business.

M. Gruezmacher, PhD (University of Bonn, Germany); Assistant Lecturer

S.R. Jeffrey, PhD (Minnesota); Professor and Associate Dean; Production Economics, Agricultural Business Management.

M. Kecinski, PhD (Kaiserlautern, Germany); Assistant Professor; Environmental Economics.

M.K. Luckert, PhD (British Columbia); Professor; Forest Economics, Natural Resource Economics.

F. Qiu, PhD (North Carolina State); Associate Professor; Agricultural Economics.

P. Marcoul, PhD (Universite des Sciences Sociales Toulouse); Associate Professor; Agricultural Economics, Financial Economics, Industrial Organization.

S. Mohapatra, PhD (California-Davis); Associate Professor; Production Economics and Development.

J.R. Parkins, PhD (Alberta); Professor and Department Chair; Rural Sociology. Environmental sociology, rural sociology, sociology of agriculture and forestry.

B.L. Parlee, PhD (Manitoba); Associate Professor; Traditional Knowledge and Resource Management Practices, Community and Ecosystem Health.

J. Rude, PhD (Guelph); Associate Professor; International Trade, Policy.

B.M. Swallow, PhD (Wisconsin-Madison); Professor; Environment and Development Economics

M. Torshizi, PhD (Saskatchewan); Assistant Lecturer; Agricultural Economics, Policy.

B.M. Wichmann, PhD (Tennessee- Knoxville); Associate Professor; Natural Resource Economics.

1.2 Associated Academic Staff

Adjunct Professors

S. Cash, PhD (Berkeley); Adjunct Professor; Food, Health and Environmental Economics.

S. Clare, PhD (Alberta); Adjunct Professor; Environmental Policy.

D. Griffith, PhD (Michigan); Adjunct Professor;

H. Harshaw, PhD (UBC); Adjunct Professor; Recreation, Tourism, Protected areas

G.K. Hauer, PhD (Minnesota); Adjunct Professor; Resources & Environmental Economics, Trade.

N. Krogman, PhD (Colorado State); Adjunct Professor; Sociology of Natural Resources, Environmental Sociology, International Development

E. Smith, PhD (Iowa State); Adjunct Professor, Production Economics, Cropping systems and Economics of Environmental Stewardship Practices

M. Weber, PhD (Alberta); Adjunct Professor; Resource and Environmental Economics.

B. White, PhD (Simon Fraser); Adjunct Professor; Forest Economics.

Emeriti Professors

L.P. Apeadale, PhD (Iowa State); Professor Emeritus; Resource Economics and Environmental Sociology

E. Bielawski, PhD (Calgary); Professor Emeritus; Northern Studies.

D.S. Gill, PhD (Cornell); Professor Emeritus; Rural Sociology, Agricultural Extension.

M.H. Hawkins, PhD (Ohio State); Professor Emeritus; Marketing, Business Management.

M.L. Lerohl, PhD (Michigan State); Professor Emeritus; Agricultural Policy and Trade.

E. Murray, PhD (Pennsylvania State), Professor Emeritus; Resource Economics and Environmental Sociology and Women's Studies

W.E. Phillips, PhD (Berkeley); Professor Emeritus; Forest Economics, Resource Economics.

E. Tyrchniewicz, PhD (Purdue); Professor Emeritus; Policy, Transportation, Agricultural Policy, International Development

M. Veeman, PhD (Berkeley); Professor Emeritus; Markets, Policy, Trade.

T.S. Veeman, PhD (Berkeley); Professor Emeritus; International Development, Resource and Environmental Economics.

1.3 Support Staff

Lucia Secchia; Research and Academic Programs Manager

Elizabeth Ho; Research and Academic Initiatives Coordinator

2. GRADUATE STUDIES

2.1 University Regulations

2.1.1 Application

Application for admission to graduate studies is completed online at <https://uofa.ualberta.ca/graduate-studies/prospective-students/apply-for-admission>. The normal entry point for our Graduate Programs is Fall Term (September). Applications should be made as early as possible to allow sufficient time for processing prior to registration deadlines. Graduates of other institutions must arrange for the submission of official transcripts of academic record and letters of recommendation. Complete applications for admission must be submitted no later than **March 31st**. However, in order for applicants to receive full consideration for admission and **financial support** (including scholarships and assistantships), it is strongly recommended that complete applications be submitted by **February 15th**. Financial support may be available for exceptional students applying after this date, depending upon the circumstances of their individual cases. **Given the time required to arrange for all supporting documents to be submitted, applicants are advised to start the process early.**

Application documents are compiled by the Graduate Administrator (Admissions) in the Faculty of Agricultural, Life & Environmental Sciences and forwarded to REES when complete. The Department reviews the application and makes a recommendation to the Faculty of Graduate Studies and Research (FGSR) as to the student's admissibility according to Department standards. The final decision regarding admission is made by the FGSR, with the result of the Faculty's decision then being communicated directly to the applicant.

2.1.2 Admission Standards

1. The requirements for admission as a graduate student are:
 - a. For master's students, a four year University of Alberta baccalaureate degree, with a grade point average of at least 3.0 in the last 60 units of course weight of undergraduate study, or an equivalent qualification and standing from another recognized institution; for PhD students, the provisions under section 2.3.4.1 apply.
 - b. A recommendation of acceptance from REES. Such a recommendation is made only after a careful assessment of the applicant's academic background and his/her aptitude for advanced studies in their chosen sub-discipline. Transcripts of academic record, recommendation from persons qualified to evaluate the applicant's potential, and other pertinent information are used in assessing admissibility.

2.1.3 English Language Requirement

English is the primary language of instruction at the University of Alberta. Therefore, all applicants must be proficient in English prior to admission into graduate studies. This may be established by:

- a. having qualifications from a specific country or institution, recognized by the University of Alberta as such, where the language of instruction is English
- b. demonstrating sufficient English language coursework at the secondary school level from select countries
- c. providing a satisfactory score on an approved English language examination

Those applicants who are not able to demonstrate English proficiency through options a or b (above), must obtain a satisfactory score on an English Language examination before they can be admitted. Scores from TOEFL, MELAB, IELTS and CAEL are all recognized by the FGSR. Information concerning minimum acceptable scores for each test are available in the *FGSR Graduate Program Manual*: <https://uofa.ualberta.ca/graduate-studies/about/graduate->

[program-manual/section-5-admissions/5-8-english-language-proficiency-requirement.](https://www.registrar.ualberta.ca/graduate-studies/about/graduate-program-manual)

2.1.4 Faculty of Graduate Studies and Research (FGSR) Regulations

Graduate programs in the Department of Resource Economics and Environmental Sociology are governed by the FGSR's procedures and guidelines, which are outlined in the *FGSR Graduate Program Manual* <https://uofa.ualberta.ca/graduate-studies/about/graduate-program-manual> and the *University Calendar* <https://www.registrar.ualberta.ca/calendar/>.

Specifically, the *FGSR Graduate Program Manual* outlines the policies and guidelines pertaining to:

1. Areas of Responsibilities Related to Graduate Programs
2. Student Recruitment and Enrollment Management
3. Financial Aid and Awards
4. Fees
5. Admissions
6. Program Planning and Registration
7. Administration of Graduate Programs
8. Supervision, Oral Examinations, and Program Completion
9. Disputes and Resolutions
10. Intellectual Property

2.1.5 Graduate Ethics, Professionalism, and Academic Integrity Training

Ethics, professionalism, and academic integrity training is mandatory for all newly-admitted University of Alberta graduate students who started their program on or after September 1, 2004. Students need to complete this requirement in order to convocate. REES has specified its requirements for the Graduate Ethics, Professionalism and Academic Integrity Training program, and a summary of the current requirements is provided in Appendix A.

2.1.6 Thesis Regulations

A thesis is required in all MSc and PhD programs offered by the Department. Students must submit, before binding, an electronic copy of their thesis to the FGSR for approval. Information about thesis preparation and submission requirements is available on the FGSR website: <https://uofa.ualberta.ca/graduate-studies/current-students/academic-requirements/thesis-requirement-and-preparation#Step%204:%20Submit%20Thesis%20to%20FGSR>. As well, at least three additional copies of the thesis are required - one for the Department Library (bound), one for the student's supervisor (along with an electronic copy), and one for the student. It is also customary to provide the student's examining committee members with a copy of the thesis.

While MAg and MBA/MAg students are not required to write a thesis, a project report is a requirement for both of these degrees. Students in these programs are required to submit a bound copy of the report to the Department and provide a copy of the report (paper and electronic) to their supervisor. Preparation of this report should be done in concurrence with departmental standards and norms. Students should check with their supervisors for more information.

2.1.7 Time Limits and Program Extensions

To be recommended for a Master's degree (MSc or MAg), a candidate must have completed all requirements within four years of their initial registration. To be recommended for a degree of Doctor of Philosophy, a candidate must have

completed all requirements within six years of the first registration in their program. For Master's students who transfer into the PhD program, the student must have completed all requirements within six years of their initial registration in the Department. In addition, as per FGSR regulations, all PhD program requirements, other than the thesis, must be completed within three years of the commencement of the doctoral degree program. Details regarding these time limits are provided in the *FGSR Graduate Program Manual*: <https://www.ualberta.ca/graduate-studies/about/graduate-program-manual/section-7-administration-of-graduate-programs/7-9-time-limit-for-completion-of-a-degree-of-diploma>

Students who are not able to complete their degree requirements within the time limits specified above may apply for an extension. A first extension of up to one year may be approved by the Department. Any subsequent extensions require the approval of the FGSR. This applies to both Master's and PhD program requirements and time limits. Extension requests are approved only in cases where there are valid reasons why the requirements were not completed within the allowed time period. Students who wish to apply for an extension (first or otherwise) should provide to the Department a letter outlining progress to date, explaining the reasons why an extension is required, and a timetable for completion of the requirements. They should also arrange for a letter of support from their supervisor and complete the appropriate FGSR form; [Program Extension](#) for time limit extension requests and [Application for Doctoral Program Requirements Extension](#) in the case of the three-year PhD requirements time limit. **Please note that extension requests should be submitted to the Department well in advance of the FGSR deadline.** More information about program extensions may be found in the *FGSR Graduate Program Manual*: <https://uofa.ualberta.ca/graduate-studies/about/graduate-program-manual/section-7-administration-of-graduate-programs/7-10-program-extensions>.

2.2 Departmental Procedures

2.2.1 Graduate Coordination and Supervision

1. Initially the Department's Graduate Committee advises all incoming students regarding the planning of their courses (using the Program Outline forms).
2. After the initial meeting with the Graduate Committee, the student must complete their registration and submit electronic copies of the Program Outline form to the Senior Graduate Administrator for approval by the Graduate Coordinators.
3. Requests for changes in the initial approved program require written notification by the student to a Graduate Coordinator.
4. A Graduate Student Progress Form is completed annually following the winter semester by each supervisor for each graduate student. The appraisal notes satisfactory progress if applicable, and areas in which progress is unsatisfactory. The annual appraisal form is maintained in the student file within the Department. Progress Forms are reviewed annually by the Graduate Coordinators.
5. The following general guidelines govern the graduate student supervisory process in the Department of Resource Economics and Environmental Sociology:
 - i. The Department of Resource Economics and Environmental Sociology accepts graduate students only in those subject matter areas for which adequately qualified academic staff are available for graduate supervision.
 - ii. By the end of the second term of their program in the Department, graduate students will normally have found a supervisor with whom (s)he will normally complete his/her program. This academic staff member, normally an academic staff member from REES, will be responsible for supervising the student's thesis

- research or MAg project report.
- iii. Supervisors of graduate students in the Department are required to assemble a supervisory committee upon becoming a supervisor. The supervisory committee then assumes responsibility for the student's prescribed schedule of studies. For MSc students, the supervisory committee should consist of a supervisor and at least one additional faculty member (one of whom may act as a co-supervisor or may be from another department when appropriate). For PhD students, the supervisory committee, following FGSR requirements, should consist of a supervisor and at least two additional faculty members. Supervisors are expected to submit the completed departmental Supervisory Committee forms to the Senior Graduate Administrator. The supervisory committee is expected to meet with the student at least twice a year.
 - iv. Normally, PhD students will be supervised or co-supervised by at least one professor that has the rank of Associate or Full Professor.
 - v. Supervisors of all graduate students must meet the Criteria for Supervision of the FGSR. These criteria require that supervisors, and normally members of supervisory committees, must a) be active in the general area of the student's research, b) hold a tenured (or tenure-track) faculty appointment, c) hold a degree equivalent to or higher than that for which the student is a candidate, and d) demonstrate continuing scholarly or creative activity of an original nature. Adjunct professors who have a continuing full-time appointment at the University of Alberta may supervise or co-supervise graduate students with the approval of the Department.
 - vi. Staff members who serve as graduate supervisors have a responsibility to reinforce research and learning efforts of graduate students by providing encouragement, being available for consultation and, when deemed necessary, establishing the pace of program activities. All participants can be expected to benefit from the productivity, performance, and excellence of the Department and therefore can expect to share their talents and energies in making the Department a more productive entity within the university and in the wider community. Information concerning responsibilities and guidelines for graduate supervision is available on the FGSR website: <https://uofa.ualberta.ca/graduate-studies/about/graduate-program-manual/section-1-areas-of-responsibilities/1-2-the-supervisor> and <https://cloudfront.ualberta.ca/-/media/gradstudies/about/faculty-and-staff/resources-for-supervisors-and-graduate-coordinators/2008cagsguidingprinciplesforgraduatestudentsupervision.pdf>.

2.3 Degree Programs

2.3.1 The Master of Agriculture (MAg) Degree

2.3.1.1 Purpose

The course-based Master of Agriculture (MAg) program is intended primarily for holders of a Bachelor's degree in an approved discipline. The purpose of the program is to provide advanced training in the social sciences of agricultural and resource economics, and rural sociology. Individual course programs are designed to meet the special needs and interests of each student. These programs emphasize course work which stresses interpretation, adaptation, and application of research findings rather than how to conduct research. Supervisors endeavour to tailor programs for each student depending on previous experience, interests, and professional needs within the overall framework of the above requirements. All programs are consistent with the usual standards of performance required for Master's degrees at the University of Alberta.

2.3.1.2 Special Regulations

1. Minimum residence requirement is one single term (4 months).

2. The program requires
 - 8 Graduate courses (at the 400 or 500 level) with a minimum of two three-credit courses at the 500 level.
 - 1 graduate level project course.
3. Normal time to completion is one calendar year, 12 months, (starting in September).
4. The time limit for completion of the program is four years.
5. Students are expected to attend the department seminar series.
6. At least six 3-credit courses must be taken with the Department of Resource Economics and Environmental Sociology.

2.3.1.3 Project

A project involving a written report equivalent to at least one single-term course, shall be carried out in the candidate's primary area of emphasis towards the end of their program. The project is intended to increase the student's acquaintance with economic or sociological research and the application of analytical tools.

At the discretion of the graduate coordinators (and depending on the cohort composition registered in the program) the project may be undertaken by individual students or groups. The report will receive a grade of pass or fail as judged by a designated instructor. If a report is judged as a fail, the student(s) will receive one chance to revise the project report.

2.3.1.4 Course Requirements for the Master of Agriculture Degree in Agricultural Economics/Rural Sociology

A. Minimum Admission Requirements

- i. Admission standards given in 2.1.2 and 2.1.3 of this handbook are enforced.
- ii. Academic background: students entering the program should typically have completed the following types of courses:
 - a. MAg in Agricultural Economics - Microeconomics, Macroeconomics, Quantitative Methods (Calculus, Linear Algebra, Statistics) and Applied Economics (e.g. Development Economics, Environmental Economics, Trade, Money and Banking, Finance)
 - b. MAg in Rural Sociology - Statistics, Quantitative and Qualitative Methods, and Social theory.

C. Program and Course Requirements

- 1) Foundations: 2 courses from methods and theory, where at least 1 course (*3) must be methods.
- 2) Policy: 2 courses focused on policy
- 3) Applications: 2 courses focused on applications
- 4) Electives: 2 courses based on student's interests and certificate requirements
- 5) Project Course: normally completed over the summer months.

A list of recommended courses in each category will be maintained by the department. The graduate coordinator (in consultation with the student) will identify the 2 elective courses.

2.3.2 The MBA/MAG Joint Degree Program

2.3.2.1 Purpose

The Faculty of Agricultural, Life & Environmental Sciences and the School of Business offer a program of joint study which enables students to earn both the MBA and MAG degrees after two years of full-time study. The purpose of the program is to combine the strengths of the MBA and MAG programs in order to provide advanced training in business management as it relates to the agri-food sector. Students in this program complete the course requirements for the MBA, along with additional coursework in agricultural and resource economics, with individual course programs being tailored to meet the needs and interests of each student. A final project provides further opportunity for integrating the two parts of the joint degree program. The usual standards of performance required for Master's degrees at the University of Alberta also apply to this joint program. More information about the joint degree program is provided on the School of Business website: <https://business.ualberta.ca/programs/the-alberta-mba/degree-programs/master-of-agriculture>.

2.3.2.2 Special Regulations

1. Applicants must complete a FGSR application form to be submitted to the School of Business. Enclosed with the application should be a letter indicating the intention to apply to the MBA/MAG program. The letter should include a statement of the applicant's agricultural specialization, background, and interests.
2. Applicants with an undergraduate degree in an approved discipline are normally admissible to this program. Applicants must follow the admission procedures and meet the admission requirements of both the School of Business and the specific department of the Faculty of Agricultural, Life & Environmental Sciences.
3. The recommendation for admission will be made by the MBA/MAG Joint Program Selection Committee consisting of representatives from the School of Business and the Faculty of Agricultural, Life & Environmental Sciences. Admission will be recommended only for those students judged to have the ability and motivation to handle the significant demands of the program. Professional experience is highly desirable.
4. Students in this program are subject to the academic standing regulations of both the School of Business and the specific department of the Faculty of Agricultural, Life & Environmental Sciences.
5. Minimum residence requirement is one single term (4 months).
6. Students enrolled in this program on a full-time basis can complete the program in two calendar years. Students may undertake the joint program on a part-time basis. The duration of the total program must not exceed six consecutive calendar years.
7. Students are expected to participate in the departmental seminar series through attendance and presentation of their research project results.

2.3.2.3 Project

A project involving a written report equivalent to at least one single-term course, shall be carried out in the candidate's primary area of emphasis. The project should have a significant business component. One bound copy of the completed project report must be submitted to the REES General Office (GSB 515). The project report must meet departmental standards and norms. Students should check with their supervisors for more details.

An evaluation committee of at least two faculty members, including the student's supervisor and one member who is not a supervisor, will review and assess the project report. The project will receive a grade of pass or fail. If a project is judged as a fail, the student will receive one chance to revise the project report. A copy of the approval letter from the evaluation committee is to be filed with the Department. It is the committee's responsibility to maintain Faculty and departmental standards for the project.

2.3.2.4 Course Requirements for the MBA / Master of Agriculture Degree in Agricultural Economics/Rural Sociology

A. Minimum Undergraduate Requirements

Those prerequisites needed for graduate level courses.

B. Minimum Graduate Course Requirements

		Units of Course Weight	Description
(1)	First-Year Required MBA Courses	30	Accounting, Business Economics, Finance, Marketing, Management Science
(2)	Second-Year Agriculture Courses	15	Five *3 courses in agriculture related disciplines.
(3)	Elective Courses	12	Two *3 MBA courses Two *3 MBA or agriculture related courses
(4)	AREC 900	3	REES MAg Project course (major business paper with agriculture focus)
(5)	SMO 641	3	MBA Capping Exercise (business strategy)

2.3.3 The Master of Science (MSc) Degree

The MSc is a thesis-based Master's program with a normal completion time of approximately two years. Students in this program normally take two terms of coursework (three courses per term) followed by completion of a research based thesis. The Department offers MSc programs in agricultural and resource economics, forest economics, and rural sociology. As well, a multidisciplinary MSc program in risk and community resilience is also offered. These degree programs are subject to the degree regulations of both the FGSR and REES.

2.3.3.1 Special Regulations

1. An MSc student must spend at least two single terms in full-time attendance at the University as a candidate for the Master's degree. An alternative means for meeting the residency requirements may be considered under special circumstances, but the Department will not recommend a program involving less than one term of full-time attendance.
2. A candidate who meets all of the Department's undergraduate prerequisites for his/her program will be expected to complete the equivalent of one and one-half to two calendar years of course work and research. Candidates with lesser entrance qualifications may be required to complete additional course work, depending upon the extent of their entrance deficiencies, which would then result in a longer completion time. The actual time required to complete the degree program will vary between students.
3. A minimum of six single-term graduate courses must be taken in the MSc degree program. Up to two undergraduate course deficiencies (at the 400-level) may be taken as part of these minimum course requirements. Any further course deficiencies must be taken in addition to the six-course minimum.
4. Extramural courses will be accepted only in special circumstances and with approval of the Department.
5. A thesis based on original research is required. The weight of the thesis should normally be equivalent to four to six single-term courses. The form of the thesis must conform to FGSR requirements and departmental standards and norms.
6. Students are expected to participate in the department seminar series through attendance and presentation of the results of their thesis research.

Students are required to obtain a passing grade on an oral examination, with the exam being designed to test the candidate's knowledge of the thesis and of related fields. An examination committee of at least three faculty members must be approved by the Department. The examination committee will normally include the student's supervisory committee and must include at least one arm's length examiner. The committee will review the thesis and conduct an oral examination which is normally chaired by a non-examining Chair who will be a REES faculty member. Persons other than the examiners may attend with the approval of the Dean or the Chair of the examining committee. Representatives of funding agency supporting the research may be encouraged to attend the oral examination. Information about FGSR regulations concerning the structure of examination committees (e.g., eligibility for membership) and conduct of oral examinations is provided in sections 8.2 and 8.3 of the *FGSR Graduate Program Manual*: <https://uofa.ualberta.ca/graduate-studies/about/graduate-program-manual/section-8-supervision-oral-examinations-and-program-completion>.

2.3.3.2 Minimum Course Requirements for the MSc Degree in Agricultural and Resource Economics

A. Minimum Admission Requirements

- i. Admission standards given in 2.1.2 and 2.1.3 of the handbook are enforced.
- ii. Academic background: students entering the program should typically have completed the following types of courses:
 - a. Microeconomic and Macroeconomic Theory courses at an intermediate undergraduate level (2nd or 3rd year courses) (e.g., ECON 281 and ECON 282, or equivalent)
 - b. Quantitative Methods, including Introductory Calculus, Linear Algebra, and Statistics (e.g., MATH 113, STAT 141/151, MATH 210, AREC 214)
 - c. An intermediate level (2nd or 3rd year) Econometrics course (e.g., AREC 313 or equivalent)
 - d. Other Applied Economics courses at an intermediate or senior level, such as Development Economics, Resource Economics, Environmental Economics, Agricultural Marketing, Money and Banking, Finance, Financial Economics, etc.
 - e. Microeconomic Theory at a senior undergraduate level (ECON 481 or equivalent); if not completed before starting the MSc program, this course may be taken as one of the "Additional Courses" in section (3) below.
 - f. Besides these courses, students interested in this degree program may choose to take additional preparatory economics courses such as ECON 384, ECON 385 and/or ECON 386.

		Units of Course Weight	Description
Minimum Graduate Course Requirements			
(1)	Core Agricultural/Resource Economics Courses	9	Three courses at the 500 level (AREC, FOREC, INT D), at least two of which must be offered by REES, or as approved by the student's supervisory committee and the departmental graduate committee.
(2)	Quantitative Methods	3	AREC 513

(3) Additional Courses^a 6 400- or 500-level courses

^a ECON 482 is recommended for students who anticipate undertaking subsequent PhD level studies.

2.3.3.3 Minimum Course Requirements for the MSc Degree in Forest Economics

A. Minimum Admission Requirements

- i. Admission standards given in 2.1.2 and 2.1.3 of the handbook are enforced.
- ii. Academic background: students entering the program should typically have completed the following types of courses:
 - a. Microeconomic and Macroeconomic theory courses at an intermediate undergraduate level (2nd or 3rd year courses) (e.g., ECON 281 and ECON 282 or equivalent)
 - b. Quantitative Methods, including Introductory Calculus, Linear Algebra, and Statistics (e.g., MATH 113, STAT 141/151, MATH 210, AREC 214)
 - c. An intermediate level (2nd or 3rd year) Econometrics course (e.g., AREC 313 or equivalent)
 - d. Intermediate level (2nd and 3rd year) courses in Forest Science, such as Silviculture, Wood Science, Forest Management, etc.
 - e. Other Applied Economics courses at an intermediate or senior level, such as Resource Economics, Forest Economics, Forestry Policy, etc.
 - f. Microeconomic Theory at a senior undergraduate level (ECON 481 or equivalent); if not completed before starting the MSc program, this course may be taken as one of the “Additional Courses” in section (3) below.
 - g. Besides these courses, students interested in this degree program may choose to take additional preparatory economics courses such as ECON 384, ECON 385 and/or ECON 386.

		Units of Course Weight	Description
B. Minimum Graduate Course Requirements			
(1)	Core Forest/Resource Economics Courses	9	Three courses at the 500 level (AREC, FOREC, INTD), at least two of which must be offered by REES, or as approved by the student’s supervisory committee and departmental graduate committee.
(2)	Quantitative Methods	3	AREC 513
(3)	Additional Courses ^a	6	400- or 500-level courses

^a ECON 482 is recommended for students who anticipate taking subsequent PhD level studies.

2.3.3.4 Minimum Course Requirements for the MSc Degree in Rural Sociology

A. Minimum Admission Requirements

- i. Admission standards given in 2.1.2 and 2.1.3 of the handbook are enforced.
- ii. Academic background: students entering the program should typically have completed the following types of courses:

- a. Introductory Statistics (e.g., STAT 141/151 or equivalent)
- b. Intermediate (2nd or 3rd year) Quantitative/Qualitative Methods including Survey Research, Case Study, or Ethnographic Methods, etc. (e.g., SOC 315, SOC 418, NS 290, NS 390)
- c. Intermediate (2nd or 3rd year) Social Theory, including Environmental Sociology, Contemporary Social Theory, and/or Development Theory, etc. (e.g., R SOC 355, R SOC 365, R SOC 450, SOC 212, SOC 355)
- d. Other topical Sociology, or related courses at an intermediate or senior level, including Human Geography, Political Science, Economics, etc.

A. Minimum Graduate Course Requirements		Units of Course Weight	Description
(1)	Quantitative Sociological Methods	3	R SOC 515 or SOC 515
(2)	Qualitative Sociological Methods	3	SOC 518 or equivalent social science methods course (e.g., SOC 533)
(2)	Sociological Theory	6	Two of R SOC 555, R SOC 558, R SOC 559, SOC 535, SOC 549, SOC 656
(3)	Additional Courses	6	500-level R SOC or SOC courses, or as approved by the student's supervisory committee and departmental graduate committee.

2.3.3.5 Minimum Course Requirements for the interdisciplinary MSc Degree in Risk and Community Resilience

A. Minimum Admission Requirements

- i. Admission standards given in 2.1.2 and 2.1.3 of the handbook are enforced.
- ii. Academic background: students entering the program should typically have completed the following types of courses:
 - a. Introductory Statistics (e.g., STAT 141/151 or equivalent)
 - b. Intermediate (2nd or 3rd year) Quantitative/Qualitative Methods (e.g., SOC 315, SOC 418, NS 290, NS 390, AREC 214, AREC 313, ECON 299, ECON 399)
 - c. Intermediate (2nd or 3rd year) Social Science courses, such as Sociology (e.g., R SOC 355, R SOC 365, R SOC 450, SOC 212, SOC 355) or Economics (e.g., ECON 281, ECON 282)
 - d. Topical Social Science courses at an intermediate or senior level

A. Minimum Graduate Course Requirements		Units of Course Weight	Description
(1)	Risk and Community Courses	6	R SOC 555, R SOC 558, NS 503, NS 590, SPH 533, SPH 514 or other courses as approved by the student's supervisory committee and the departmental graduate committee
(2)	Quantitative and Qualitative Methods	6	Two of AREC 513, AREC 514, R SOC 515, SOC 509, SOC 515, SOC 518, NS 593 or other courses as approved by the student's supervisory committee and the departmental graduate committee,
(3)	Additional Courses	6	Two additional graduate courses offered by REES, Native Studies or Sociology, or from other departments (e.g., ANTHR, NURS, SPH) as determined in consultation with the student's supervisory committee and departmental graduate committee. At least two of these courses must be offered by REES.

2.3.4 The Doctor of Philosophy Degree

PhD programs are offered in agricultural and resource economics, forest economics, and rural sociology. These degree programs are subject to the degree regulations of both the FGSR and REES. Department regulations supplement the Faculty regulations. For further information about FGSR regulations, please refer to section 174.2.1 of the calendar and the *FGSR Graduate Program Manual*: <https://uofa.ualberta.ca/graduate-studies/about/graduate-program-manual>.

2.3.4.1 Department Regulations

1. The Department offers programs leading to the Doctor of Philosophy degree in Agricultural and Resource Economics, Forest Economics, and Rural Sociology.

2. Admission:

Students may be admitted as candidates for the degree of Doctor of Philosophy if they have completed a thesis based Master's degree, with demonstrated superior performance equivalent to an admission GPA of at least a B+ (3.3).

a. Prerequisites:

- i. PhD in Agricultural and Resource Economics (AREC) or Forest Economics: Students entering the PhD program, specializing in Agricultural and Resources Economics or Forest Economics, will normally have completed a thesis-based Masters program in Agricultural/Resource Economics, Forest Economics, Economics, Business, or a related field that includes the following types of courses:
 - a. Masters level Microeconomic Theory
 - b. Graduate level applied Econometrics
 - c. Other Applied Economics courses at the Masters level, such as Development Economics, Forest Economics, Resource Economics, Agricultural Marketing or Price Analysis, Financial Economics, etc.
- ii. PhD in Rural Sociology: Students entering the PhD program, specializing in Rural Sociology, will normally have completed a thesis-based Masters program in Rural/Environmental Sociology, Sociology or a related field that includes the following types of courses:
 - a. Masters level Social Theory
 - b. Graduate level Applied Quantitative/Qualitative Methods
 - c. Other Topical Sociology courses at the Masters level, such as Natural Resource Sociology, Development, Gender, Risk, Social Movements, Social Impact Assessment, etc.
- iii. Students applying to programs leading to the Doctor of Philosophy degree in Agricultural and Resource Economics, Forest Economics, and Rural Sociology are required to submit recent (no older than five years) Graduate Record Exam (GRE) general test scores (verbal, quantitative and analytical writing portions).

3. Students admitted into MSc programs may apply to transfer to the PhD program.

4. A student should not take three consecutive degrees from the Department

5. Program of Study: In addition to the research requirement, the student must meet the following graduate course requirements, as well as make up all deficiencies in preparatory and prerequisite courses. The student is required to maintain a minimum grade of C+ (2.3) in each course and is required to maintain a grade point average of at least B (3.0). The following course program applies for those students who do not have suitable course equivalents from their previous studies.

5.1 Program of Study for Agricultural and Resource Economics and Forest Economics Degrees

a. Core Courses:

1. Economic Theory and Applications:¹ Two single-term courses, consisting of ECON 503 and ECON 505 are required. Two additional courses offered by REES, AREC 502 and AREC 533, are also

¹Appropriate mathematical economics courses (equivalent to Economics 386 and 387) must be taken prior to the specified economic theory courses.

required. These four courses will support the economic theory and applications preliminary examination.

2. Quantitative Methods: Three single-term courses in quantitative methods are required beyond the level of AREC 513 (or equivalent). The econometrics component is currently designated as Economics 598 and 599. The additional quantitative technique component is normally specified as AREC 514

b. Elective Courses:

1. Courses to support preliminary examinations: Two single-term courses to support either the agriculture or the environment/resource preliminary exam. Subject to course offerings, suggested courses to support the preliminary examinations are: for the agriculture exam, AREC 583 and AREC 584, or suitable replacements as confirmed by the graduate committee; for the environment/ resource exam, AREC 565 and AREC 569, or suitable replacements as confirmed by the graduate committee.
2. Other Courses: In addition to courses that support preliminary exams, students are required to take two *3 courses (typically at the 500 level) that will normally be taken from one or more of the following areas: Production Economics, Marketing Economics, Resource/Environmental Economics, Forest Economics, Agricultural Development and Development Economics.
3. Such additional courses as may be necessary to meet the requirements of the degree, as determined in consultation with the student's supervisor and the departmental graduate committee. Total coursework successfully completed as a doctoral student in REES will normally be 11 *3 graduate courses.

5.2 Program of Study for the Rural Sociology Degree

- a. Sociological Theory: Two single term courses chosen in consultation with the supervisor or graduate committee if supervisor not yet assigned, normally but not exclusively selected from the following list: RSOC 555, SOC 531, SOC 535, SOC 580.
 - b. Sociological Research Methods: Two single-term courses: R SOC 515 or SOC 515 or an alternative quantitative methods course chosen in consultation with the supervisor or graduate committee if supervisor not yet assigned; one of SOC 518 or alternative qualitative methods course chosen in consultation with the supervisor or graduate committee if supervisor not yet assigned).
 - c. Elective Courses: Two single-term graduate level courses that are directly or indirectly related to the student's field of thesis research. Any of RSOC 530, RSOC 558, RSOC 559 are recommended but students are not restricted to courses offered in this department. These courses should be chosen in consultation with the supervisor or graduate committee if supervisor is not yet assigned.
 - d. Additional Course Requirements: Such additional courses as may be necessary to meet the requirements of the degree, as determined in consultation with the student's supervisor and the departmental graduate committee. Total coursework successfully completed as a doctoral student in REES will normally be at least *18 of graduate courses.
6. Language Requirement: The Department does not require a knowledge of a language other than English, but the Supervisory Committee may recommend an additional language if it is needed to facilitate the student's research.
 7. Preliminary Examinations:
 - a. Appointment and Structure of Committees

Preliminary examinations are required prior to advancing to the candidacy examination for all PhD degrees offered by the Department. Preliminary examinations, including grievance procedures, are administered by the Department (following FGSR guidance). The Department Chair, after consulting with the student's Supervisor, will appoint the committee chair for each preliminary/specialization exam. The committee chair will appoint members of the examination committee.

- 1) The chair of the examination committee should not be a supervisor or co-supervisor of the student being examined.
- 2) The examining committee should include at least 3 faculty members who may or may not be members of supervisory committees for students writing the examinations.
- 3) Members of the examination committee may include appropriately qualified persons from Departments other than Resource Economics and Environmental Sociology.

b. Agricultural and Resource Economics Preliminary Examinations

Two preliminary exams (of a comprehensive nature) are required for the Agricultural and Resource Economics and Forest Economics degrees: one exam in economic theory and applications including an emphasis on those theoretical principles and quantitative methods that are applied in agricultural, resource/environmental and forest economics; and one field exam. Each student and his or her supervisory committee will select one exam field. Exam fields are: Agricultural Economics and Resource/Environmental Economics. Courses in support of preliminary examinations will be selected when the program planning form is completed with the graduate program committee. Normally two graduate level courses in each field are recommended as preparation for each preliminary exam. Courses taken may not be sufficient for successful completion of preliminary exams given the comprehensive nature of the exams. Each exam will be closed-book with an allowed time of 3½ hours.

c. Rural Sociology Comprehensive Examinations

- 1) Students are required to complete two comprehensive examinations: a preliminary examination and a specialization examination.
- 2) Preliminary Examination:
The preliminary examination is based on a pre-established reading list (not to exceed 100 sources) within the discipline of Rural/Environmental Sociology. The reading list is maintained and updated by faculty members serving the Rural/Environmental Sociology graduate programs within the department, and contains content from substantive fields of study within the discipline. The Department Chair will be responsible for soliciting input to update this reading list during the Winter term (January-April) each year, and an approved, updated reading list provided to students no less than eight weeks before their preliminary examination date. The examination will be administered as an in-room exam, consisting of six questions. Each of the essay questions will be answered by the student on an internet-disabled computer, without prepared notes or access to books (with the exception of a dictionary). Each exam answer will be double-spaced, and include citations (author and date). The student will be allowed four hours to answer all six questions, plus a one-hour lunch break.
- 3) Specialization Examination:

The students must identify a specialization area that will encompass the Specialization Examination. The specialization area must be distinct from the primary lines of inquiry that will define the student's dissertation research, and be approved by the student's Supervisor. The specialization exam will usually be completed in the second summer of the students program, but may occur earlier or later depending on timing of completion for course work, as well as field work demands, grant stipulations, etc.

Students may choose one of the following two examination options for the specialization exam:

1) Take-home examination. A reading list must be approved by the examination committee six weeks prior to the exam. The exam consists of three questions that are given to the student one week prior to the due date. Answers should normally not exceed 15 double-spaced typed pages in length, and must include a complete list of references.

2) In-room written examination. A reading list must be approved by the examination committee normally eight weeks prior to the exam day. The in-room exam consists of three questions, drawn from a list of ten questions supplied to the student six weeks prior to date of examination. Each of the essay questions will be answered by the student without prepared notes or access to books (with the exception of a dictionary). Each exam answer will be on average five to seven double spaced pages. The student will be allowed 8 hours to answer all three questions, with a one-hour lunch break.

d. Scheduling

A student preparing for preliminary examinations will normally have completed all of the relevant course work prior to taking the exams. Preliminary exams for all REES PhD programs will normally be written during the summer months (May through August). For Agriculture and Resource Economics and Forest Economics students, exams will be written towards the beginning of the summer (i.e., May) after two semesters of coursework, with retakes occurring, as needed, at the end of the same summer (i.e., August).

e. Evaluation – Economics

In evaluating the examination:

- 1) Each question in the examination will be assessed individually. To receive a pass for a preliminary exam, the student must receive an average grade overall of B (3.0) or greater.
- 2) If a pass is not achieved, students will be requested to rewrite the examination.
- 3) A preliminary/specialization exam can only be taken twice. If a pass is not achieved after two tries, the student cannot advance to candidacy and will be required to withdraw from the PhD program.

f. Evaluation – Rural/Environmental Sociology

Students must earn an overall grade on the exam of 3.0 or higher. Grades lower than 3.0 will result in a fail. Students who fail may retake the take-home examination or the in-room examination, but may only do one second exam. Normally second exams will be taken in the Fall term following the summer of the original exam. If a pass is not achieved after the retake, the student will be required to withdraw from the PhD program.

g. Reporting of Results

The Chair of each examining/specialization exam committee will report the committee members' evaluation of each

question and an assessment of the examination overall to the Department Chair, who will forward these results to the student and student's supervisor, together with the decision as to whether the student is to advance to the candidacy examination. Results of preliminary examinations will normally be available within 30 days after the exam is completed.

9. Research Proposal: Prior to advancing to candidacy, a written research proposal on the student's thesis project will be prepared by the student and submitted to the Supervisory Committee. The Supervisory Committee must approve the research proposal prior to the oral candidacy examination. The oral candidacy examination is normally to be completed within six months of the successful completion of the preliminary/specialisation examinations. The oral candidacy examination committee will be structured following FGSR procedures (outlined in Section 174.2). A copy of the approved thesis research proposal shall be deposited in the Department of Resource Economics and Environmental Sociology's Reading Room.

2.4 Financial Assistance

2.4.1 General Information

Most financial awards are made on the basis of previous academic performance, although financial need is a consideration in some cases. Unless otherwise stated, awards are made for only one year. Applications for renewal may be considered on a basis of open competition, but renewals are rarely granted beyond the time normally required to complete the degree (e.g., a student on a one-year program should not expect financial assistance for more than one year). Only full-time students are eligible to receive awards.

No student may hold more than one major award in a given year. A major award has a value equal to or greater than \$13,000. Non-major awards are considered to be an award with a value less than \$13,000. A major award may be combined with other non-major awards. All financial awards are subject to Canadian Income Tax regulations. Foreign students who are not permanent residents must obtain employment authorizations in order to receive assistantships. Unless otherwise stated, financial awards do not include remission of tuition fees. For more information on Scholarship regulations, please refer to the Graduate Scholarship Committee Award Winner's Handbook at <https://cloudfront.ualberta.ca/-/media/science/departments/biological-sciences/graduate/award-winners-handbook-2017181.pdf>

2.4.2 University-Funded Assistantships

1. A Graduate Assistant (GA) must be registered as a graduate student, proceeding full-time on his/her degree program and being paid to carry out: (a) teaching-oriented duties, such as instructing in laboratories and grading of class assignments or laboratory reports; and/or, (b) research duties on various Departmental projects as assigned by the Department.
2. When appointed to an assistantship, a full-time GA is normally required to devote 10 hours per week during any 4-month term to teaching and research duties for the Department as assigned by the Department.
3. Graduate assistantships are awarded for a period of one term. There are three terms: *First term*, September 1 to December 31; *Second term*, January 1 to April 30; and *Intersession term*, May 1 to August 31. A graduate student may be appointed to one, two, or three assistantships in any calendar year, depending upon the needs of the Department. Only candidates for degrees are eligible to hold assistantships during the intersession term. Students completing a qualifying year are not eligible to hold assistantships during the following intersession term without special permission from the Dean of the Faculty of Graduate Studies and Research.
4. In some instances, a graduate student may be appointed to a part-time graduate assistantship involving fewer than 12

hours of teaching and/or research duties per week and receive a pro-rated graduate bursary, basic salary, and differential. Major award-holders may accept part-time assistantships involving not more than four hours per week (or one-third the value of an annual assistantship) during the first and second terms, or a total of 204 hours during the 12-month period.

New and continuing students are automatically considered as a Graduate Assistants and the graduate committee meets in May of each year to allocate funding.

2.4.3 Research Grant-Funded Assistantships

Graduate research assistantships may be funded from research grants held by individual staff members. Such grants are received from a variety of granting agencies. While it is Departmental policy to treat all graduate assistants equitably to the greatest extent possible, some granting agencies set terms which differ from the regulations governing University-funded assistantships. Consequently, both the duties and the rates of remuneration may differ. Grant-funded assistantships normally carry a specific research obligation, usually stated in terms of the task to be accomplished rather than the time frame involved. The results of such research are expected to be used in the student's thesis. Further information on research assistantships may be obtained from the Department.

2.4.4 Fellowships, Scholarships and Student Loans

2.4.4.1 Fellowships and Scholarships

A number of fellowships and scholarships are awarded by the University through a general awards competition. This competition is intensive, and typically only students with first-class standing need apply. For information on University-administered awards, please refer to <https://www.ualberta.ca/graduate-studies/awards-and-funding/scholarships>. There are also recruitment scholarships (both Masters and Doctoral) that are separate from the general awards. The Department nominates qualified applicants on their behalf.

In addition to awards offered by the University, a number of awards made by other agencies are tenable at the University of Alberta. The most notable of these awards are the Social Sciences and Humanities Research Council (SSHRC) and National Sciences and Engineering Research Council (NSERC) awards. These awards are available to Canadian citizens and permanent residents with outstanding scholastic ability. Application information and websites are available in Section 180.4 of the University Calendar. Other awards in this category include both the John G. Bene and Young Canadian Researchers IDRC Awards, as well as awards offered by both the Canadian Wheat Board and the Winnipeg Commodity Exchange. Further information on deadlines for these awards can be obtained from the Department.

2.4.4.2 Student Loans

Both the Province of Alberta and the Government of Canada provide loans to full-time students who are either Canadian citizens or permanent residents. Students attending the University of Alberta should contact the Student Financial Aid & Information Centre for information on applying. Students whose home residence is in another province should apply through the Province. In the Province of Alberta, the same application form covers both the Provincial and Canadian student loan plans. Assistance may be awarded to either or both plans on the same application.

3. COURSE OFFERINGS

Students in the Department of Resource Economics and Environmental Sociology typically take courses in AREC: (Agricultural and Resource Economics), ECON (Economics), FOREC (Forest Economics), SOC (Sociology), and R SOC (Rural Sociology). Additional areas of course offerings that may be relevant, depending on the specialization and student interests include ENCS (Environmental and Conservation Sciences), INT D (Interdisciplinary Undergraduate & Graduate

Courses), NS (Native Studies), RENR (Renewable Resources), as well as courses offered in the School of Business. Please note that course selections are informed by the recommendations of graduate student coordinators and supervisors.

For detailed course listings, see the *University Calendar*:

<http://registrarsoffice.ualberta.ca/Calendar/~//media/registrar/pdfcal/15-16calendarpdf/Courses.pdf>

For other courses in the Faculty of Agricultural, Life and Environmental Sciences, see the *ALES Course Catalogue*:

<https://catalogue.ualberta.ca/Course/Faculty?facultyCode=AH>

Appendix A – Ethics, Professionalism, and Academic Integrity Program

Department of Resource Economics and Environmental Sociology (REES) Ethics, Professionalism, and Academic Integrity Training Program

All University of Alberta graduate students are required to fulfill an FGSR requirement for ethics, professionalism and academic training.² This is a mandatory requirement and students cannot graduate until this training has been completed. Each student is normally expected to complete the equivalent of at least eight hours of structured academic activity for this training component. The Department of REES has developed the following Ethics and Professionalism program to meet FGSR's requirement for academic integrity and ethics and professionalism training.

Please note that FGSR requires that PhD students complete this program within three years of starting their program. However, ALL REES graduate students are strongly advised to complete the majority of training during the first year of their graduate program.

REES Ethics, Professionalism and Academic Integrity Program (all components are mandatory):

1. REES Graduate Orientation Lunch/Meeting

This is held at the beginning of Fall term, and is offered by departmental academic and support staff. Topics covered include an introduction to the department's graduate program, administrative procedures, REES's graduate student association (REESSA), supervision and funding, etc.

2. FGSR eClass GET (Graduate Ethics Training) Course

This is an FGSR online self-study ethics course that addresses several topics, including: Conflict of Interest, Conflict Resolution, Integrity and Scholarship, Intellectual Property, Student/Supervisor Relationships. Information and access is available through: <https://www.ualberta.ca/graduate-studies/current-students/academic-requirements/ethics>.

3. Complete the Tri-Council Online Tutorial on Research Ethics

This is an on-line tutorial (Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans or TCPS 2) about human research ethics. It consists of eight modules and is approximately three hours in length. Tutorial access is at <http://tcps2core.ca/welcome>. Students should login using their @ualberta.ca address and obtain a certificate of completion when finished. See the FAQ section of the website for more details.

4. An Individual Development Plan (IDP)

The Individual Development Plan can be found at <https://www.ualberta.ca/graduate-studies/professional-development/professional-development-requirement/individual-development-plan>. The IDP is self-directed and should be completed in the first eight months of the student's program. REES graduate coordinators can be considered mentors in this element of the professional development programs.

5. Two (2) ALES Professional Development Opportunities

REN R 603 is a **Fall term** course offered by the Department of Renewable Resources that addresses a wide range of topics, some of which are relevant for REES graduate students. Students will be notified at the beginning of Fall term concerning the schedule of REN R 603 sessions and the list of seminars that are approved for REES students.

REES also offers three professionalism-related workshops/seminars during Fall and Winter terms. Specific topics addressed by the workshops may vary from year to year, but will typically include issues such as research ethics, academic integrity/professionalism (grants, communication, collaboration), publishing research results, etc. Students will be notified during Fall term concerning the schedule for the upcoming academic year.

Students need to attend a total of two (2) workshops/seminars from RENR and/or REES. **Watch for these e-mail notices.**

² This requirement applies to all students who started their program on or after September 1, 2016. Students who enrolled prior to September 1, 2016 must abide by the guidelines outlined in the Graduate Handbook of the year in which they entered the program.

6. Three (3) FGSR Professional Development Opportunities

FGSR offers a variety of professional development training opportunities for graduate students throughout the year. These range from self-guided studies to course series, workshops and seminars. Students are encouraged to consult FGSR's offerings at <https://www.ualberta.ca/graduate-studies/professional-development/professional-development-requirement/individual-development-plan> and to sign up for the professional development email list-serve.

7. At least Six (6) REES Seminars

REES offers departmental seminars throughout the academic year. These seminars typically feature department or visiting speakers talking about their research. Seminar announcements (via e-mail and posters) concerning scheduling and topics will be made throughout the year. **Watch for these e-mail notices.**

8. Three Minute Thesis Competition (TMTC)

At the end of their 1st year MSc Students are expected to participate in a REES *Three Minute Thesis* competition and present a plan for their thesis work explaining why it is important. MAg and PhD students are not required to participate in the TMTC, but are required to participate in one additional FGSR Professional Development seminar (see above).