

Program Policy Statement – Agricultural and Resource Economics

Part I. Program History

- A. Statement of purpose and expectations for graduate study in the program.
The program in Agricultural and Resource Economics leads to the Master of Science degree and offers students the perspectives and skills necessary to understand and work in the general fields of economics, resource economics, agricultural economics, environmental economics, applied economics, agribusiness or government sectors of the economy. Also, a strong intermediate level of training is offered so that students may continue graduate work and obtain a PhD degree. Students completing the M.S. degree in Agricultural and Resource Economics will:
1. Have a theoretical foundation in microeconomics and macro economics.
 2. Have a core set of coursework in quantitative applications from statistics, econometrics, regression, logistic regression, data management, and geographic information systems
 3. Have exposure to additional coursework in agriculture economics, resource economics, environmental economics, and/or experimental economics, in addition to general economics
 4. Have an opportunity to apply the course work in a thesis, applied research, or an internship (under the Decision Analysis Concentration).
- B. Date of Permanent Status (or current status).
The Agricultural and Resource Economics Program has been a part of the Department of Mathematical Science to the Department of Food and Resource Economics, College of Agriculture and Natural Resource since its inception.
- C. Degrees offered (include brief description of concentrations, fields, etc.).

M.S. In Agricultural and Resource Economics (AREC)

M.S. in Agricultural and Resource Economics with a Concentration in Decision Analysis

Part II. Admission

- A. Admission Requirements (be specific about GRE, GMAT, and TOEFL Scores, G.P.A and others).
On a 4.0 system, applicants should have a G.P.A. of at least 2.5 and an average of at least 3.0 in economics, mathematics and related areas. Applicants who have completed an advanced degree must have done so with a G.P.A. of at least 3.0. In addition, applicants must take the GRE Aptitude Test with at least a score of 1050 in quantitative math and verbal (with an emphasis on the quantitative) for the traditional test. Students taking the new GRE exam should have a minimum of 300 combined on verbal and quantitative reasoning. Students for whom English is not their first language must meet a minimum of 85 on the TOEFL IBT examination. Admission to the Agricultural and Resource Economics Program is based on selections made by the department graduate committee in compliance with

University policies and procedures. Admission is selective and competitive based on the number of well-qualified applicants and the limits of available faculty and facilities. Those who meet stated minimum academic requirements are not guaranteed admission, nor are those who fail to meet those requirements necessarily precluded from admission if they offer other appropriate strengths.

B. Prior degree requirements.

Candidates for admission to the Agricultural and Resource Economics program need not have majored in any specific undergraduate field as a prerequisite for admission. However, competence is expected in economics (at least the intermediate undergraduate level), basic statistics, calculus, and other quantitative coursework.

C. Application deadlines.

Fall: February 1 (international applicants) & July 1

Spring: December 1

Summer: Not applicable at this time

D. Special competencies needed (i.e., specific courses or experience). n/a

E. Admission categories (explain other than regular such as provisional).

1. **REGULAR STATUS:** is offered to students who meet all of the established entrance requirements. Individuals who apply during the final year of undergraduate or current graduate work and are unable to supply transcripts showing the conferral of the degree will be admitted pending the conferral of the degree. Evidence of the earned degree must be provided prior to the first day of classes in the term of admission.
2. **CONDITIONAL ADMISSION:** is offered when transcripts or test scores must still be verified by the Office of Graduate and Professional Education. The conditions of acceptance must be satisfied within the first semester of coursework.
3. **PROVISIONAL ADMISSION:** is offered to students who are seeking admission to a degree program but lack specific prerequisites needed in the major department. Students with provisional status are not eligible for assistantships or fellowships until the provision has been met.
4. **NONDEGREE ADMISSION:** may be offered to students who apply too late to submit standardized test scores but have supplied an official transcript. Test scores must be submitted and accepted by the department by the end of the first semester to be eligible to continue in a degree program.

Nondegree status is also offered to students who wish to work to earn graduate credit with graduate status but do not intend to work for a degree (e.g., certificate programs). Transcripts and GRE scores are required for admission.

5. VISITING SCHOLAR ADMISSION: is offered to students who wish to transfer graduate credits to another institution. A letter from the student's graduate dean or registrar certifying good academic standing is accepted in lieu of the transcripts and GRE scores. Visiting scholar status is generally limited to a period of two years and is a non-degree status.
- F. Other documents required (i.e., letters of recommendation, essays, portfolios, interviews, writing assessments, etc.).
Transcripts, letters of recommendation, essays, resume.
- G. Must include University statement: Admission to the graduate program is competitive. Those who meet stated requirements are not guaranteed admission, nor are those who fail to meet all of those requirements necessarily precluded from admission if they offer other appropriate strengths.

Part III. Academic

A. Degree Requirements

The total credits required for the degree are 30. Students are required to complete a minimum of 30 credit hours including either a thesis or a non-thesis option. All students must meet the following course requirements.

Agricultural and Resource Economics M.S. Core requirements (4 courses for 12 credits)

- ECON 801 Microeconomics
- ECON 802 Macroeconomics
- FREC 810 International Trade
- FREC 834 Natural Resources

Agricultural and Resource Economics M.S. Quantitative Requirement (a minimum of 4 courses for 12 credits)

- FREC/STAT 608 Research Methods I
- ECON 803 Applied Econometrics I
- ECON 804 Applied Econometrics II
- FREC 615 Advanced Prices and Statistics
- STAT 675 Logistic Regression
- FREC 682 Spatial Analysis of Natural Resources

Under the thesis option, students complete 24 hours of course work and 6 hours of thesis work (FREC 869).

Under the non-thesis option, students complete 27 hours of course work and 3 hours of directed research (FREC 868).

The student plans a course program in consultation with the major professor, in order to attain competency in economics, quantitative methods, and agricultural and resource economics.

Students must achieve an overall index of 3.0 on a 4.0 scale for all graduate course work taken. The student's progress toward the degree will be monitored by the academic adviser and the department graduate committee.

A student choosing the thesis option is required to prepare a thesis that reflects a substantive analysis of a subject in the field of agricultural and resource economics. An oral examination covering both course work and thesis will be given to determine whether the student has a breadth of understanding of the field. A student selecting the non-thesis option is required to complete a directed research project to be presented at a department seminar.

Concentration in Decision Analysis.

Students wishing to build a concentration in Decision Analysis can build additional skills in operation research mathematical modeling that would compliment the agricultural and resource economics coursework. The number of credits remains at 30 and the core courses in the M.S. Agricultural and Resource Economics are the same with the exception of substituting FREC 807 Math Programming with Economic Applications for FREC 834. In addition, in place of the Signature Courses there are four operations research courses. Students declaring the Decision Sciences concentration in the Operations Research M.S. degree will take the following.

Agricultural and Resource Economics M.S. Core requirements for the Decision Analysis Concentration (4 courses for 12 credits)

- ECON 801 Microeconomics
- ECON 802 Macroeconomics
- FREC 810 International Trade
- FREC 807 Math Programming with Economic Applications

Decision Analysis Concentration Quantitative Requirement (4 courses for 12 credits)

- FREC 615 or ECON 803
- STAT 601 or STAT 670
- ORES 602 Survey Operations Research II
- ORES 603 Simulation Modeling and Analysis

Choose One Option for 6 Credits

Thesis FREC 869 6 Credits

or

One additional course and 3 credits of Directed Research FREC 868 6 Credits

or

One additional course and 3 credits of Internship ORES 664 6 Credits

- B. **Committees for exams or thesis**
New students, as part of the usual orientation program, will meet with the Department Chair and the Chair of the Graduate Committee until an advisor is assigned. Thereafter the student will meet with their advisor to plan their first year of study in the program. The student plans a course program in consultation with the major professor, in order to attain competency in economics, quantitative methods, and agricultural and resource economics. For students in the thesis option, a Thesis Committee is formed in the second semester which consists of the major professor and two other faculty from the department. Additional outside members can be added to the thesis committee. Advice will be given concerning course selection based on interests and undergraduate/graduate background. Our program is sufficiently small that we are able to give individualized attention to graduate students. Added features of the program are internship possibilities and directed research. The authority for administering the program rests with the Graduate Committee. The advisor helps students formulate a plan of study through meetings with individual graduate students. These meetings occur twice yearly before the beginning of each preregistration period.
- C. **Timetable and definition of satisfactory progress towards the degree**
Most graduate students will take 9 credits as full-time students, particularly in the first year. This involves three graduate three-credit courses. In the second year, when most students are involved with a thesis, directed research or internship, students generally take two classes plus a three-credit thesis, independent study or Internship credits. Grade requirements (general and specific): A minimum GPA of 3.0 is required to remain in good standing.

Academic Good Standing

To be considered in good academic standing, a student must maintain a minimum cumulative graduate grade point average (GPA) of 3.00 on a 4.00 scale each semester. To be eligible for an advanced degree, a student's cumulative grade point average shall be at least a 3.00 and the student's grades in courses counted toward the degree requirements of the program shall equal at least a 3.00. A grade below a C- will not be counted toward the course requirements for a degree but is calculated in the student's cumulative grade point average.

In addition to the University's definition of good standing, some programs may also require minimum grades in specific courses in the program. These courses are identified in each program's policy and procedures manual and these unit-specific requirements have been approved by the Faculty Senate.

Performance in graduate lecture courses and seminars is evaluated according to the University's Grading Policy. When the work required in research (868, master's thesis 869, or special problem 866) extends beyond the regular semester period, temporary grades of "S" and "U" should be recorded. Final letter grades are to be recorded only at the completion of the project.

Academic Deficiency And Probation

The Office of Graduate and Professional Education monitors the academic progress of all graduate students and notifies students in writing of all academic deficiencies. The cumulative GPA after each 9-hour increment determines academic standing. (See chart below.)

Any status (or clear) 3.0 or above Clear

Clear 2.99-2.5 Warning

Clear 2.49-2.0 Probation

Probation Below 3.0 Dismissal

Warning Below 3.0 Probation

Any status Below 2.0 Dismissal

In addition to the University policy regarding minimum grade point averages, some departments require graduate students to maintain certain performance minima in their programs of study in all or in particular courses. Failure to meet the stated minima may lead to academic dismissal from the program.

Graduate Studies Academic Probation Policy

The University's Academic Probation Policy is expressed in the following:

The Office of Graduate and Professional Education notifies students when they are dismissed from graduate programs without completing a degree. Dismissals usually take place at the end of a term. Students may be dismissed for the following reasons:

- Upon the expiration of the five-year time limit for master's degree programs or for those students in a doctoral program who were admitted with a master's degree. Upon the expiration of the seven-year time limit for doctoral students who were admitted without a master's degree.
- Upon the failure to meet the grade point average requirements as stated in the policy on Academic Deficiency and Probation.
- Upon written notice to the Office of Graduate and Professional Education of voluntary withdrawal from the program.
- Upon failure to pass the preliminary, language, or comprehensive/candidacy examination(s), a thesis/executive position paper proposal defense, or a thesis/executive position paper defense.
- Upon the failure to achieve a cumulative grade point average of 3.0 upon the completion of the stated number of required credits for a degree.
- Upon the failure to meet the stated minima in specific course requirements as identified by individual programs when a department has a policy that such failure leads to dismissal from the program.
- Upon failure to satisfactorily conduct research required for the degree.

Upon the determination by the faculty of the student's department that the student has failed to meet or has failed to make satisfactory progress towards meeting academic standards required of the student's program other than the failure to achieve a cumulative grade point average of 3.0 upon the completion of the stated number of required credits for a degree.

At the close of each semester, winter session or summer session, in those circumstances deemed appropriate by the department or program faculty exercising its professional judgment, the faculty of each department or program may evaluate the progress of a graduate student toward meeting the academic standards of the program in which the student is enrolled. In addition to graded course work, academic standards include, but are not limited to, professional, ethical, clinical and other standards required of graduate students.

Students are entitled to know the procedures and standards by which their academic performance is assessed. Each program has a statement of policies and procedures by which student academic progress is monitored and by which comprehensive, qualifying, and final examinations/defenses are conducted and graded. If, in the professional judgment of a department or program faculty, a student has failed to make satisfactory progress toward meeting the academic standards of the program in which that student is enrolled, the faculty may vote to dismiss that student from the program.

In the case of dismissal, the program director is required to send a report to the Office of Graduate and Professional Education that states the faculty vote on the decision causing dismissal and the justification for this action. The Office of Graduate and Professional Education will notify a student in writing when the student is being dismissed for failure to make satisfactory progress in the program.

In the case of academic dismissal, the student may appeal the termination by writing to the Office of Graduate and Professional Education. This appeal must be made within ten class days from the date on which the student has been notified of academic dismissal. If the Vice Provost grants reinstatement, the student must meet the conditions of the reinstatement. Failure to meet these conditions will result in dismissal from the program. A graduate student may be reinstated only once to a given major. The student's academic transcript will reflect the reinstatement with academic probation status.

Academic Progress

GPA Requirements

Students must have a minimum overall cumulative grade point average of 3.0 to be eligible for the degree. In addition, the grades in courses specifically required for the degree program must average at least 3.0. All graduate-numbered courses taken with graduate student classification at the University of Delaware are applied to the

cumulative index. Credit hours and courses for which the grade is below "C-" do not count toward the degree even though the grade is applied to the index.

Academic Probation

The Office of Graduate Studies monitors the academic progress of all graduate students and notifies students in writing of all academic deficiencies. The cumulative GPA after each 9-hour increment determines academic standing. In addition to the University policy regarding minimum grade point averages, some departments require graduate students to maintain certain performance minima in their programs of study in all or in particular courses. Failure to meet the stated minima may lead to academic dismissal from the program.

Satisfactory Progress toward a Graduate Degree

If a graduate student fails to make satisfactory progress toward all degree requirements, permission may be denied to continue in the degree program. At the close of each semester, winter session or summer session, in those circumstances deemed appropriate by the department or program faculty exercising its professional judgment, the faculty of each department or program may evaluate the progress of a graduate student toward meeting the academic standards of the program in which the student is enrolled. In addition to graded course work, academic standards include, but are not limited to, professional, ethical, clinical and other standards required of graduate students. In the case of dismissal, the program director is required to send a report to the Office of Graduate and Professional Education that states the faculty vote on the decision causing dismissal and the justification for this action. The Office of Graduate and Professional Education will notify a student in writing when the student is being dismissed for failure to make satisfactory progress in the program and the procedures for the student to appeal the action.

Time Limits for the Degrees

Time limits for the completion of degree requirements begin with the date of matriculation and are specifically expressed in the student's letter of admission. The University time limit is ten consecutive semesters to complete the degree requirements for students entering a master's degree program. Students completing the requirements for the master's degree who are subsequently granted permission to continue toward the doctoral degree are given an additional ten consecutive semesters. Students entering a doctoral program with a master's degree are given ten consecutive semesters to complete the requirements. Students entering a doctoral program without a master's degree are given fourteen consecutive semesters to complete the requirements. Students who change their degree plan and have transferred from one degree program to another degree program are given ten consecutive semesters from the beginning of the first year in the latest program.

Extension of the Time Limit

Requests for time extensions must be made in writing and approved by the student's advisory committee and the chair of the department's graduate committee. The department will forward the request to the Office of Graduate and Professional Education. The Office will determine the student's eligibility for a time extension and will notify the student in writing of its decision to grant an extension of time.

Thesis guidelines:

The University of Delaware regards your thesis as a professional document which conforms to the standards of scholarly writing and follows the guidelines set forth in this manual. Master's theses must reflect both the ability to conduct scholarly research and to report the results in a literate manner worthy of publication. Scholarly writing expectations include organization of ideas and materials, citation style, correct usage, sentence structure, spelling, and punctuation.

The first rule of academic writing is intellectual honesty. Students at the university are expected to be honest and forthright in their academic endeavors. Proper attribution of the work of others is expected. To falsify the results of one's research or other findings with the intent to deceive (fabrication), or to steal the words or ideas of another as if they are one's own work (plagiarism) violates this rule. If you are uncertain about what constitutes fabrication or plagiarism, it is your responsibility to consult your advisor.

Your advisor and advisory committee members also bear responsibility for ensuring that your research topic and the findings make a significant, original contribution to the field and that your presentation meets the criteria for scholarly writing. Your advisor's and committee members' signatures on the approval pages of your paper attest to their having read the final version and to your having met these standards. The signature of the chairperson of your department, the chair of an interdisciplinary committee, and the instructional college dean also attest to your having met these standards.

Part IV. Assessment Plan

Assessment plan for M.S. in Agricultural and Resource Economics				
Objectives	Strategic Activities	Measures	Short-term Outcomes	Long-term Impact
1. Train students in theoretical economics	Recruit excellent applicants and matriculate students with credentials similar to those in the existing departmental graduate programs	Number and demographic data of student applicants and matriculated students.	Retention and time to degree statistics	Students gain employment in applied economic related fields
	Course work covering the disciplines of economics, agricultural economics, statistics, and data analysis	Faculty evaluation of student progress in course work Surveys of graduate students in the program and post-graduation	Students are prepared for subsequent coursework that requires the theoretical knowledge	Graduates enjoy long term success in agricultural and resource economics careers; graduates who go on for a Ph.D. in Agricultural and Resource Economics and related fields
2. Provide training in agricultural and resource economics and data analysis techniques	Course work in international trade, resource economics, econometrics, quantitative analysis, and other approved courses	Surveys of students focusing on their experiences in these classes and the utility of these classes to their career Faculty evaluation of student progress in course work	Course work for the Agricultural and Resource Economics M.S. degree helped students secure economic related internships and initial employment Students and graduates report applying knowledge from courses to work settings	Graduates enjoy long term success in agricultural and resource economics careers
3. Provide experiential training in agricultural and resource economics to prepare students for the expectations of the workplace	Thesis in agricultural and resource economics Directed research in agricultural and resource economics Internships in agricultural and resource economics related fields	Surveys of students focusing on their experiences in their thesis, directed research or internship Surveys of graduates to determine the utility of their thesis, directed research or internship experience to their career Faculty and internship mentor evaluation of both the thesis, directed research or internship work and the written products Interviews and surveys of internship mentors	Thesis, directed research or internship prepares students for the workplace and helps them secure their first post-graduation position Thesis, directed research or internship prepares students for Ph.D. work and helps them be admitted (with funding) in a Ph.D. program	Graduates enjoy long term success in agricultural and resource economics careers

Part V. Financial aid

A. Financial Awards

Teaching Assistants (TA)

Teaching assistantships are awarded to students to assist with specific courses, particularly introductory courses. Teaching assistants are required to lead discussion groups, grade assignments and exams, and other instructional activities. As with any professional appointment, the amount of service may vary from week to week but the average is usually expected to be 20 hours per week.

Research Assistants (RA)

Research assistantships are generally funded by research grants and contracts provided by external funding agencies. Research assistantships require twenty hours of service or research a week. The amount of service or research may vary from week to week but the average is usually expected to be 20 hours per week. Research assistants are expected to work on their assigned research projects during winter session and may be required to work during summer as well. The amount of each student's stipend will be calculated in accordance with the number of months that the student is employed.

Graduate Assistants (GA)

Graduate assistantships are awarded to students in exchange for work. Graduate assistants are employed for twenty hours a week in a variety of capacities as administrative assistants to University faculty and administrators or as research or teaching assistance to a faculty member beyond what is required for a Research Assistant. These tasks may or may not be related to the student's program. The amount of service may vary from week to week but the average is usually expected to be 20 hours per week.

Tuition Scholars

Tuition scholarships provide full tuition but do not pay a stipend. They are awarded according to the same rules that govern eligibility for University fellowships. There is no work requirement for the tuition scholarship. Tuition scholars can meet the requirement to maintain full-time status by enrolling in a minimum of six graduate credit hours per semester. Tuition scholars may accept remuneration for employment inside or outside of the University. Tuition scholars are covered by the University's graduate student Accident and Sickness Insurance Plan.

Part VI. Departmental Operations

- A. General student responsibilities
Up-to-date addresses, etc.
Department of Food and Resource Economics
213 Townsend Hall
Newark, DE 19716
Phone: 302-831-2511
Fax: 302-831-6243

Laboratories and research equipment. None

Hazardous Chemical Information Act.

Vehicles. No department vehicles are provided.

Keys, offices, mail, telephone, copy machine, computer terminals, etc.
All graduate students in the Agricultural and Resource Economics Program are given keys to the graduate office; are allowed use of the graduate office computers; are allowed access to the department photocopy machine (a limited monthly copy allotment is granted all graduate students); are allowed access to the department fax machine; and can access department supplies for such things as paper, pens, notepads and staples.

Access to Student Records

Students wishing to review their Departmental file must submit a written request to the Graduate Program Director at least 24 hours in advance. Students must review the file in the presence of departmental staff or faculty and are not permitted to remove a file from Wolf Hall but may photocopy documents from their folder. All access to student records is in accordance with the Family Educational Rights and Privacy Act.

Standards of Student Conduct

- A) Academic honesty
All graduate students are subject to University of Delaware regulations regarding [academic honesty](#).
- B) Laboratory Safety and Research Regulations
Graduate students performing laboratory research are subject to all University regulations regarding safety, use of human subjects and animals, and hazardous/radioactive material use and disposal. These guidelines may be found in the University of Delaware Policies and Procedures Manual. Students participating in off campus internship experiences are expected to fully comply with all safety regulations of the workplace.

C) Contact information

It is the responsibility of all students to ensure that their contact information on file with the university is current (mailing address, phone number, email address). It is also the student's responsibility to regularly monitor their email, phone and mail for important notices regarding their enrollment.

D). Departmental facilities

Occasionally student's graduate assistantship or other assignments may require the use of departmental laboratories or other facilities. Keys to laboratories, etc., are maintained in the Department office and will be issued based on faculty and Department Chair approval.

Any assignments that require the expenditure of departmental funds (e.g. data collection activities) require departmental approval in advance and are processed through the department in which the work is to be done.