

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 a Master of Science (M.S.) degree. The program offers students the perspectives and skills necessary to understand and work in the general fields of applied economics, agricultural and food economics, resource economics, environmental 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 pursue a Ph.D. degree. Graduates of the Agricultural and Resource Economics M.S. program will be able to:

- 1) Review and synthesize peer-reviewed literature and identify critical knowledge gaps.
- 2) Critically discuss theoretical frameworks in microeconomics and the implications of using these frameworks to analyze human behavior.
- 3) Demonstrate a fundamental understanding of theories and methods related to agricultural and food policy, environmental and resource economics, behavioral economics, experimental economics, and stated preference research.
- 4) Formulate research questions and develop a research plan that addresses a meaningful question in applied economics using appropriate methods.
- 5) Execute a research plan by applying quantitative skills in econometric modeling using best practices for data collection, management, and analysis.
- 6) Effectively communicate applied economics research to diverse audiences and stakeholders through written and verbal communication skills.
- 7) Discuss contemporary issues in applied economics research and apply best practices to demonstrate responsible and ethical professional conduct that respects diverse perspectives and promotes inclusivity.

B. Date of Permanent Status (or current status).

The Agricultural and Resource Economics Program has been a part of the Department of Applied Economics & Statistics (previously known as the Department of Food and Resource Economics), College of Agriculture and Natural Resources since its inception.

C. Degrees offered (include brief description of concentrations, fields, etc.).

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

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 or GMAT test. However, the GRE/GMAT requirement can be waived in special circumstances. Students for whom English is not their first language must meet a minimum of 100 on the TOEFL IBT examination. The department Graduate Committee reserves the right to waive testing requirements for exceptional applicants.

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 admission: February 1 to be considered for Fall admission and funding. In special situations, applications may be reviewed until July 1 for Fall admission

Spring admission: December 1 for Spring admission. Only in rare cases are applicants admitted to begin the program in the Spring.

Summer admission: 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 toward a degree (e.g., certificate programs). Admission requirements outlined in Part II, Section A must still be met for students admitted with nondegree status.

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, statement of purpose, 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*

1. *List course requirements according to categories such as core requirements, concentration options, electives, research credits and dissertation credit requirements. List number of credits in each category and include total credits required for degree.*

The total credits required for the degree are 31. Students are required to complete a minimum of 31 credit hours including at least 25 hours of coursework and at least 6 hours of thesis credits (APEC869). All students must complete the following 19 credit hours of core requirements, as well as 6 additional elective credit hours of coursework chosen in consultation with their advisor.

Agricultural and Resource Economics M.S. Core requirements:

The following seven courses (19 credits):

- APEC 801 - Microeconomics Credit(s): 3
- APEC 805 - Behavioral Economics Credit(s): 3
- APEC 811 - Conducting Applied Economics Research Credit(s): 3
- APEC 812 - Preferences & Choices Credit(s): 3
- APEC 820 - Experimental Economics Credit(s): 3
- STAT 673 - Econometrics and Statistics for Economics Research Credit(s): 3
- STAT 683 - Econometrics and Statistics for Economics Research Lab Credit(s): 1

Elective requirements:

At least 6 credits of elective courses, which include but are not limited to the following:

- APEC 609 - Surveys and Economic Experiments Credit(s): 3
- APEC 807 - Math Programming with Economic Applications Credit(s): 3
- MAST 667 - Climate Change Economics Credit(s): 3
- MAST 672 - Benefit-Cost Analysis Credit(s): 3
- MAST 675 - Economics of Natural Resources Credit(s): 3
- MAST 676 - Environmental Economics Credit(s): 3
- SPPA 704 - Advanced Quantitative Methods Credit(s): 3
- STAT 601 - Probability Theory for Operations Research and Statistics Credit(s): 3
- STAT 631 - Introduction to Python Credit(s): 1
- STAT 634 - Introduction to R Credit(s): 1
- STAT 674 - Applied Database Management Credit(s): 3
- STAT 675 - Logistic Regression Credit(s): 3

2. *Give non-registered requirements in detail; includes residency requirements, qualifying examinations (number and format), portfolios, seminars, English proficiency, language requirements, teaching experience, internships, etc.*

A student is required to prepare a thesis that reflects a substantive analysis of a subject in the field of agricultural and resource economics. An oral proposal of research and thesis defense will be given to determine whether the student has a breadth of understanding of the field. The dates for the oral proposal of research and thesis defense should be communicated to the Graduate Program Director at least one week prior to each presentation. Invitations to the public-portion of these presentations will be shared with the full department.

3. *Give procedure for petitions for variance in degree requirements (e.g., course substitution policies, completion deadlines, etc.).*

Course substitutions for core requirements are allowed if a course cannot be offered in a reasonable time.

4. *Define any grade minimums in courses that are different from University policy.*

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

5. *Identify any courses, which may not be used towards the degree (i.e., independent study, pre-candidacy study).*

n/a

6. *Identify expectations of facility of expression in English (oral and written) as part of the degree requirement.*

n/a

B. *Committees for exams or thesis*

1. *Identify initial procedure for advisor and advisement procedures.*

New students, as part of the usual orientation program, will meet with the Department Chair and/or the Graduate Program Director until an advisor is determined.

2. *Identify each student committee needed and procedures for selecting committee members.*

The only committee needed is the Thesis Committee. A Thesis Committee consists of at least three core members, including the APEC faculty advisor and two other faculty members. The faculty advisor and one additional core committee member must have a primary appointment or joint appointment in APEC. The third core committee member may be a faculty member from APEC or another department or university. Additional committee members may be added to the Thesis Committee at the discretion of the student and their advisor. Students should work with their faculty advisors to form their committee, and the composition of their committee should be communicated to the Graduate Program Director, in writing, before the student begins their third semester in the program. Changes to the thesis committee should be promptly communicated, in writing, to the Graduate Program Director.

3. *Give deadlines for establishing and preparation requirements for comprehensive examinations.*

n/a

4. *Give policies for dates of examinations, grading of committee examinations and retake options.*

n/a

5. *Give guidelines for approving research proposals involving human or animal subjects.*
All research involving human subjects requires approval from an Institutional Review Board prior to data collection.

6. *Define procedures for thesis/dissertation approval in the department (e.g., role of department chair, dean, etc.).*

A thesis is approved by an advisor and other members of the Thesis Committee.

7. *Define departmental and student obligations for finding committee members.*

The student chooses Thesis Committee members with the consultation and approval of their advisor. The student is obligated to coordinate with committee members to determine dates for the oral proposal of research and thesis defense. The dates for the oral proposal of research and thesis defense should be communicated to the Graduate Program Director at least one week prior to each presentation. Invitations to the public-portion of these presentations will be shared with the full department.

8. *Define departmental and student obligations and procedures for changes in committee members.*

A student is obligated to obtain approval from their advisor before making any changes in Thesis Committee members. Changes to the thesis committee should be promptly communicated, in writing, to the Graduate Program Director.

C. *Timetable and definition of satisfactory progress towards the degree*

1. *Academic load (full & part-time) expectations. Define normal progress. Define departmental review procedures for evaluating normal progress and evaluation of performance.*

Most graduate students will take 9-10 credits per semester as full-time students, particularly in the first year. This typically involves three graduate-level three-credit courses per semester and a one-credit lab during the first semester. In the second year, when most students are involved with thesis research, students typically take one or two three-credit graduate courses plus three credits of thesis research semester.

Grade requirements (general and specific): A minimum GPA of 3.0 is required to remain in good standing.

Students should form their thesis committee in their second semester. The student should inform the Graduate Program Director of the committee composition, in writing, before the student begins their third semester in the program.

Students should submit a written thesis proposal to their committee and orally present and defend their proposal before the end of their third semester.

2. *Grade requirements (general and specific). Include any special departmental expectations such as minimum grades in specific courses, limits on special problem courses, etc.*

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 (APEC 868, master's thesis APEC 869, or special problem APEC 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.

3. *Thesis/dissertation progress timetable guidelines.*

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.

Requests for time extensions must be made in writing and approved by the student's Thesis Committee and the Graduate Program Director. 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.

4. *Thesis/dissertation defense 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 students are uncertain about what constitutes fabrication or plagiarism, it is their responsibility to consult their advisor.

Advisors and committee members also bear responsibility for ensuring that students' research topics and the findings make a significant, original contribution to the field and that their presentation meets the criteria for scholarly writing. An advisor's signature on the approval pages of a thesis attest to their having read the final version and confirming that it meets these standards. The signature of the chairperson of the department, the chair of an interdisciplinary committee, and the instructional college dean also attest to meeting these standards.

5. *Forms required.*

6. *Identify consequences for failure to make satisfactory progress.*

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 the status of associated GPA ranges 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

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.

If a graduate student fails to make satisfactory progress toward all degree requirements, permission may be denied continuing 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 coursework, 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.

7. *Protocol for grievance procedure if student has been recommended for termination for failure to make satisfactory progress.*

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.

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 Coursework covering the disciplines of microeconomics and econometrics	Number and demographic data of student applicants and matriculated students. Faculty evaluation of student progress in coursework Surveys of graduate students in the program and post-graduation	Retention and time to degree statistics Students are prepared for subsequent coursework that requires the theoretical knowledge	Students gain employment in applied economic related fields 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	Coursework in agricultural and food policy, behavioral	Surveys of students focusing on their experiences in	Coursework for the Agricultural and Resource Economics	Graduates enjoy long term success in agricultural and

economics and primary data analysis techniques	economics, experimental economics, resource economics, and stated preferences, and other approved courses	these classes and the utility of these classes to their career Faculty evaluation of student progress in coursework	M.S. degree helped students secure economic related internships and initial employment Students and graduates report applying knowledge from courses to work settings	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	Surveys of students focusing on their experiences in their directed research Surveys of graduates to determine the utility of their directed research to their career Faculty mentor evaluation of directed research and the written product(s)	Directed research prepares students for the workplace and helps them secure their first post-graduation position Directed research 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

1. *Types of awards, policy for granting financial awards, summer appointments, and number of years of support.*

Described below for detailed descriptions of specific awards.

2. *Responsibilities of students on contract.*

Described below for detailed descriptions of specific awards.

3. *Evaluation of students on contract.*

Described below for detailed descriptions of specific 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. 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 20 hours a week in a variety of capacities as administrative assistants to University faculty and administrators or as research or teaching assistants to a faculty member. 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*

1. *Up-to-date addresses, etc.*

Up-to-date addresses, etc.

Department of Applied Economics and Statistics

213 Townsend Hall

531 South College Ave.

Newark, DE 19716

Phone: 302-831-2511

Fax: 302-831-6243

2. *Laboratories and research equipment.*

None

3. *Hazardous Chemical Information Act.*

n/a

4. *Vehicles.*

n/a

5. *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; 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 Townsend 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.

B. *Student government and organizations (both student and professional).*

Students are encouraged to take leadership roles in both student government and professional organizations.

C. *Travel for professional meetings or presentations*

Travel funds may be available for student travel to professional meetings. Students should seek approval from their advisor prior to arranging any travel plans. After obtaining advisor approval for travel, students may contact the Graduate Program Director to receive information about available travel funds from the university and/or department.