

## The Ph.D. Program in Applied Economics

The Department of Agricultural Economics and Rural Sociology (DAERS) offers the Ph.D. in Applied Economics jointly with the Department of Economics and Forestry Economics. In the first year, students take two semesters of microeconomics and econometrics, one semester of macroeconomics, mathematical economics, and research methods, and a special topics course on writing for scholarly journals that serves as the basis for the PhD Research Paper that is due at the beginning of the second year of coursework.

In the second year, students take two semesters of advanced micro-econometrics along with other core courses listed in table 1, and complete their PhD Research Paper. Upon completion of the PhD Research Paper, the student schedules an Oral Preliminary Examination, which lays the groundwork for the dissertation.

The third year is devoted to completing required core courses and the dissertation. The dissertation typically consists of the PhD Research Paper and two essays. The dissertation is defended at the Final Oral Examination, which constitutes the final requirement for the Ph.D.

The intent of this document is elaborate on the Ph.D. program description provided in the Auburn Bulletin (<http://bulletin.auburn.edu/theuniversity/>). The Bulletin takes precedence over this description. Any discrepancies should be reported to the department's Graduate Program Officer. It is the student's responsibility to know and understand all program requirements.

### Ph.D. Course Requirements

The Graduate School requirements for a Ph.D. include a minimum of 60 semester hours of graduate credit beyond the baccalaureate. At least 30 of these hours must be graded. Ungraded hours include AGEC 8990 Research and Dissertation, of which a minimum of 10 credit hours are required. Complete course requirements for students enrolled in DAERS are summarized in table 1.

**Table 1. Required Courses for Ph.D. Degree in Applied Economics, DAERS**

	Description	Credits
<i>Courses offered by Economics Department</i>		
ECON 7110 and 7120	Microeconomic Theory	6
ECON 7210	Macroeconomic Theory	3
ECON 7310 and 7330	Econometrics	6
ECON 7130	Mathematical Economics	3
ECON Subtotal		<u>18</u>
<i>Courses offered by DAERS</i>		
AGEC 7080	Production Economics I	3

AGEC 7090	Resource Economics II	3
AGEC 7110	Agricultural Economic Development	3
AGEC 7690	Micro-econometrics I	3
AGEC 7700	Research Methods	3
AGEC 7970	PhD Research Paper	3
AGEC 8060	Theory of Markets	3
AGEC 8080	Production Economics II	3
AGEC 8090	Food and Agricultural Policy	3
AGEC 8690	Micro-econometrics II	3
AGEC 8990	Research and Dissertation	10
AGEC Subtotal		<u>40</u>
Total required		58

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The student should file a Plan of Study with the Graduate School by the beginning of his/her second year. The Plan of Study must be approved by the student's major professor, and should include the courses listed in table 1, including 10 hours of AGEC 8990 Research and Dissertation. The student also needs to list three committee members besides his/her major professor. The Plan of Study is filed online at <http://graduate.auburn.edu/gspoststudent/>.

International students must be enrolled at least 9 hours per semester to maintain their visa status. The credits for AGEC 8990 may be adjusted as necessary to meet this requirement. If the 10 credit-hour minimum for AGEC 8990 has been reached, the student may request an exemption from the 9 credit hour enrollment minimum by filing a "Gold Form" available from the Office of International Programs.

### **Transfer Credits**

Students who enter the Ph.D. program with a master's degree from Auburn can count those credits hours toward the Ph.D. course requirements upon approval of the Graduate Program Officer. Students who enter with a master's degree from another institution may petition to have previous coursework counted toward course requirements by filing a written request with the Graduate Program Officer giving a detailed description of the specified courses, date when the course was completed, and grade received. The Graduate Program Officer will work with the student's advisor to determine which courses might be substituted, and will forward the request to the Graduate School for final approval.

### **Electives**

There is not a lot of room in the program for electives, so students must choose wisely if they wish to graduate within three years. A suggested list from which to choose is provided in table

2. Students wishing to receive a MS in Economics should take ECON 7220 (Macro II) and ECON 7340 (Macro-econometrics). They should then take the written prelims offered by the Economics department (for details, see <http://www.cla.auburn.edu/economics/students/graduate-programs/ms-economics-degree-requirements/>).

Students wishing to receive a Graduate Minor in Statistics should include 12 hours of graduate-level statistics courses in their Plan of Study (for details, see <http://www.auburn.edu/academic/cosam/departments/math/statistics/programs/grad-minor.htm>).

**Table 2. Suggested Electives**

Course Number	Name	Credits
AGEC 7100	Operations Research Methods	3
AGEC 7200	Aquaculture Economics I	3
AGEC 7250	Aquaculture Economics II	3
ECON 7220	Macroeconomics II	3
ECON 7340	Macro-econometrics	3
ECON 8710	International Trade	3
ECON 8810	Labor Market Analysis	3
FORY 7440	Forest Finance and Investment	3
RSOC 7630	Political Economy of Development	3
STATS 7600	Stat Theory and Methods I	3
STATS 7610	Stat Theory and Methods II	3
STATS 7780	Survival Analysis	3
STATS 7800	Linear Models	3
STATS 7860	Applied Time Series Analysis	3

### Remediation

DAERS does not do remediation plans. Consistent with Graduate School policy (for details, see <http://bulletin.auburn.edu/thegraduateschool/academicprogress/>), a student whose GPA falls below 3.0 for two successive semesters (excluding the summer term) is dropped from the program. If a student's GPA falls below 2.5, funding is cut the following semester regardless of its source (hard dollars or contracts and grants). If the student then achieves 3.0, funding may be restored upon recommendation of the student's major professor, and approval of the department chair.

### Typical Ph.D. Program

An outline of the sequencing of courses in a typical Ph.D. program is shown in table 3. The major focus of the second year is completing the PhD Research Paper. Papers that do not meet

the standard (see description below) will result in the student's termination from the program. Thus, students should adjust their course load to ensure that sufficient time is available to complete the paper requirement successfully. During the third year, Ph.D. students take core courses or electives that are only offered in alternate years. But the primary concentration in the third year is on dissertation research. Students who are supported by graduate research or teaching assistantships must register for 9 hours of coursework and/or research and dissertation hours (AGEC 8990) during each fall and spring semester.

**Table 3. Typical Ph.D. Program**

Year 1	
Fall	Spring
ECON 7110 Micro I	ECON 7120 Micro II
ECON 7210 Macro I	ECON 7330 Micro-econometrics
ECON 7130 Math Econ	AGEC 7700 Research Methods
ECON 7310 Econometrics I	AGEC 7970 PhD Research Paper
Initial idea for PhD Research Paper due <b>January 15</b>	
Prospectus for PhD Research Paper due <b>April 30</b>	
File Plan of Study with Graduate School	
Year 2	
Fall	Spring
AGEC 7690 Micro-econometrics I	AGEC 8690 Micro-econometrics II
AGEC core courses from table 1	AGEC core courses from table 1
PhD Research Paper due <b>September 30</b>	
First revision of PhD Research Paper due <b>January 15</b>	
Final revision of PhD Research Paper due <b>April 30</b>	
After completion of research paper, schedule Oral Preliminary Examination	
Year 3	
Fall	Spring
AGEC Core Courses from table 1	AGEC Core Courses from table 1
Electives	Electives
Complete dissertation	
Take Final Oral Examination	

### PhD Research Paper Requirement<sup>1</sup>

<sup>1</sup> Appreciation is expressed to the Department of Agricultural and Resource Economics, University of Maryland, for permission to use their web material in developing this description, some of which is verbatim.

The writing of a publishable paper is required during the first two years of the PhD program.<sup>2</sup> The paper must be sole-authored and worthy of submission to an economics or related journal with a Google Scholar h-index of 25 or above. Journals meeting this standard can be found from the bibliometric search engine “Harzing’s Publish or Perish” available as a free download at the web site <http://www.harzing.com/pop.htm>. Students are encouraged to begin development of research ideas immediately upon entering the graduate program. Initial ideas for the paper (consisting of a concise research question, a sketch of a framework for investigation, and verification of available data) must be submitted to the Paper Committee by **January 15 of the first year** as part of the Research Paper course (described later).

Based on the paper idea and student nominations, the Paper Committee assigns a Paper Advisor to each student. Thereafter, students report to and interact frequently with their Paper Advisor. Students are also encouraged to seek advice or reactions to drafts from faculty throughout the development of their paper, just as a faculty member might seek advice from a colleague. But the paper must be solely the student’s work, which excludes work done jointly with faculty here or elsewhere (such as a professor in prior undergraduate/graduate work). Plagiarism standards of the journals apply, and violations could result in expulsion from the university (see Student Academic Honesty Code [www.auburn.edu/academic/provost/ahc.html](http://www.auburn.edu/academic/provost/ahc.html) and discussion below).

The student’s progress is evaluated by the Paper Committee together with the Paper Advisor. To assist the student in meeting the paper requirement, the Paper Committee will teach a 3-hour course on the basics of writing for journals. In this course, which is offered Spring Semester, students make an oral presentation on the development of their paper ideas, and submit a formal Paper Prospectus on or about **April 30** (end of Spring semester). Attendance is required.

The student’s paper must be submitted to the Paper Committee by **September 30** following the first year of course work. After soliciting a thorough review of the paper by the Paper Advisor and two independent reviewers selected from the faculty, the Paper Committee classifies the paper into one of three categories: (i) the paper meets the standard as is, (ii) the paper could meet the standard with minor revision, or (iii) the paper needs substantial work. Students with papers in the first category are finished with the paper requirement. Students with papers in the second and third categories are given careful advice on how to bring their papers up to journal quality, and continue to work with their Paper Advisors (which subsequently includes the independent faculty reviewers).

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<sup>2</sup> Students are assumed to have earned a MS degree or equivalent at the start of the program. For students entering with a BS degree, the paper requirement will be deferred until the equivalent of a MS degree is earned, which typically occurs after two years of classes.

The revised paper must be submitted by **January 15** of the second year, when a similar evaluation process occurs. If the revised paper fails to meet the standard, a second revision will be due **April 30**. If the paper at that point does not meet the standard, or could not do so with straightforward revisions, the student will not be allowed to continue in the PhD program. These students have the option of changing to a terminal MS program, or leaving the PhD program. The chair of the Paper Committee conveys the committee's final evaluation for each student in writing to the Graduate Program Officer, who, in turn, provides written notification of the final decision to the student and the Department Chair.

Appeals of decisions made by the Paper Committee must be tendered to the Department Chair within one month of the decision. The appeal must be in writing, and state clearly the reasons for the appeal. The Department Chair will appoint an *ad hoc* committee consisting of three faculty members who hold Level 2 Graduate Faculty status to consider the appeal. At least one of these members must be from outside the department (e.g, Economics or Forestry Economics). The *ad hoc* committee will inform the Graduate Program Officer of its decision, who will then notify the student. In filing the appeal, the student is entitled to the due process procedures described in *The Tiger Cub*, which is available online at <http://www.auburn.edu/tigercub/>.

<b>Table 4. PhD Research Paper Timetable and Deadlines</b>				
Year of PhD Study	Initial paper idea submitted to Paper Committee	Prospectus submitted to Paper Committee	Paper due	Decision letter to student
1	<b>January 15</b>	<b>~April 30</b>	<b>September 30</b>	<b>October 31</b>
	Revision submitted to Paper Committee	Decision letter to student	Final revision submitted to Paper Committee	Decision letter to Student
2	<b>January 15</b>	<b>February 15</b>	<b>April 30</b>	<b>May 15</b>

#### Tips on Producing a Successful Paper

- 1) Select a topic that contributes to the Department’s research program. Most faculty have research projects funded by the Alabama Agricultural Experiment Station, or outside contracts and grants. Familiarize yourself with these research projects, with the aim of developing a researchable idea that contributes to the research objectives. This will align your interest with faculty expertise, and thus result in higher quality feedback as the writing process unfolds.
- 2) Do a thorough review of the literature with the aim of identifying gaps, problems, or puzzles that your work could address. Focus on work published in the better journals, i.e., those with a GS h-index higher than 25. Avoid unpublished work, and work

published in “popular” outlets, i.e., those intended for a non-scientific audience. And be sure that the review is up to date, i.e., includes the most recent work on the topic. A good place to find relevant articles is *EconLit*, the electronic data base maintained by the American Economics Association. Harzing’s Publish or Perish is also a good source, as it allows you to re-arrange articles on any given topic by date of publication, journal, and citation rate.

- 3) Assemble a data base early in the research process, ideally by the end of the first semester of classes. This will give you an opportunity to explore alternative hypotheses, apply econometric techniques learned in class, and develop a realistic understanding of what can be accomplished given data limitations and time constraints.

### Policy on Late Papers

Consistent with university policies laid out in *The Tiger Cub*, paper deadlines will be strictly enforced. A student who misses a deadline without the prior approval of the Paper Committee will be terminated from the program. Requests for deadline extension must be received at least one month before due date.

After completion of the Ph.D. research paper, the student should prepare for the General Doctoral Examination (preliminary oral exam). The purpose of the preliminary oral exam is to assess the quality and viability of the student’s proposed dissertation research. Details about the process are given in the subsection below entitled “Preliminary Oral Examination.” The exam must be scheduled with the Graduate School at least one week (five working days) prior to the exam date. This is done by filing “Form A” available online from the Graduate School. Upon successful completion of the preliminary oral examination, the student becomes a candidate for the degree.

### Writing Help

Poorly written papers are apt to be rejected by faculty reviewers. With this mind, international students whose first language is not English in particular are strongly encouraged to take advantage of writing help offered by the university. Two places where help can be found are the International Student/Scholar English Center (ISEC) and the Miller Writing Center located in RBD Library. ISEC offers free tutoring services as well as specialized courses (INTL 1800 and INTL 1830) designed to improve proficiency in oral and written English. The Miller Writing Center has a program called “WriteFest” that is designed specifically to support graduate student writing. Students (domestic and international) who turn in poorly written papers and who have not taken advantage of these services are apt not to get much sympathy in the appeals process. So it is smart to work these services/programs into your schedule early in your Ph.D. studies, preferably in the first year.

## Plagiarism

Plagiarism -- the use of another's words or ideas as if they are one's own -- is a violation of Auburn University's Student Academic Honesty Code (<https://sites.auburn.edu/admin/universypolicies/Policies/AcademicHonestyCode.pdf>). It will not be tolerated in the PhD Research Paper.

University sanctions for plagiarism range from receiving a zero on the paper (with written notification to the dean) to expulsion from the university. Lack of intent (as in accidentally committing plagiarism) is not an acceptable defense.

Examples of plagiarism include:<sup>3</sup>

- Quoting another person's actual words, complete sentences, paragraphs, or an entire piece of written work without proper acknowledgement of the source
- Using another person's ideas, opinions, or theory, *even if it is completely paraphrased in one's own words*, without acknowledgement of the source
- Borrowing facts, data, statistics, figures, or other illustrative materials that are not common knowledge without acknowledgement of the source
- Submitting as one's own work a paper or parts of a paper copied *or paraphrased* from other sources
- Simply rearranging passages and making slight changes or additions in wording

Material provided by anonymous reviewers in the review process is subject to the same rules for plagiarism, as is material obtained from the web. Students who are unsure about what constitutes plagiarism should consult with their PhD paper advisors, other faculty, or the web sites of economics journals.

The best way to avoid plagiarism is to develop skills in quoting, citing, and paraphrasing another's work. Helpful information on these topics is available at the Miller Writing Center (<http://wp.auburn.edu/writing/writing-center/>) and at Purdue University's Online Writing Lab (<https://owl.english.purdue.edu/owl/resource/589/01/>).

To help ensure that PhD research papers are free of plagiarism, **the student should affix to the title page of each submission (original and revisions) the following statement:**

"I certify that this paper is free of plagiarism, and understand that if plagiarism is detected I could be subject to sanctions as defined in Auburn University's Student Academic Honesty Code."

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<sup>3</sup> These examples are taken either verbatim or in slightly modified form from the academic honesty policies of AU's history and chemical engineering departments (<http://cla.auburn.edu/history/students/undergraduate-students/academic-honesty-policy/> and <http://www.eng.auburn.edu/chen/programs/undergraduate/student-handbook/honesty-ethics/honesty-policy.html>. Accessed 5 August 2014)

Signed \_\_\_\_\_

## **The Ph.D. Examinations**

In addition to coursework and a research paper, Ph.D. students are required to pass two examinations: an oral preliminary examination, and a final oral defense.

### Oral Preliminary Examination

1. The oral preliminary examination sets the stage for the student's dissertation. The student must submit a draft of the written dissertation research proposal at least six weeks prior to the proposed date of the oral examination to his or her advisor and the designated readers. The student is required to have at least one meeting with his/her advisor and the designated readers regarding the dissertation research proposal prior to the submission of the proposal to the advisory committee as a whole. If necessary, the student will have the opportunity to modify his/her proposal to respond to remarks from the advisor and the designated readers.
2. The student must submit the final version of the written dissertation research proposal at least two weeks prior to the defense date to all members of his/her advisory committee. The student schedules the oral examination with the Graduate School by downloading and filing Form A. This must be done at least one week (five working days) before the date of the exam. The student's advisor receives an oral examination form, which he/she returns to the Graduate School upon completion of the exam with the grade (pass or fail) and date of the exam recorded.
3. If a student fails the first attempt of the preliminary examination, the Graduate Program Officer, in consultation with the student's advisor, may grant a second attempt. If a second attempt is granted, the preliminary oral examination process must be repeated between four and six months after the first attempt. A maximum of two attempts to pass the preliminary oral examination is allowed. There will be no opportunity to repeat the preliminary oral examination process after two attempts.

### Final Oral Examination

1. The final oral examination is a defense of the student's dissertation. The Graduate School requires that the final oral exam not be scheduled less than one semester after the student has successfully passed the preliminary oral examination. Before scheduling the final oral examination, the student's advisory committee must concur that the dissertation is suitable for the final defense.

2. After the first draft of the dissertation has been approved by the student's advisory committee, it is submitted to the Graduate School along with a "Dissertation First Submission Approval Form" signed by committee members. The Graduate School appoints an outside reader to review the dissertation. When the Graduate School has approved the dissertation, the student may apply for the final examination using "Form X" obtained from the Graduate School. The application form must be filed with the Graduate School at least one week (five working days) in advance of the examination date. The final oral exam should be scheduled before the deadline specified on the Graduate School's website.
3. The final oral exam is administered by the student's advisory committee. The outside reader appointed by the Graduate School also attends and participates. The examination, although focused on the dissertation, may include general questions to probe mastery of theory and methods appropriate to the student's chosen fields. Successful completion of the oral exam requires unanimous support of all members of the committee. Any member of the Graduate Faculty may attend.
4. Following the final oral examination, the advisory committee may determine that additional work is required. In that case, it will be necessary for the student to submit the final electronic copy of the dissertation to the Graduate School when all work is completed to the satisfaction of the major professor and the committee. Additional details about the submission and approval process for the dissertation are provided at the web site [http://www.grad.auburn.edu/etd\\_guide.html](http://www.grad.auburn.edu/etd_guide.html).
5. If a student fails the final oral, a re-examination may be given on recommendation of the advisory committee and approval by the Dean of the Graduate School. Further examination requires exceptional circumstances and approval of the Graduate Council.