

Status: PENDING

**PROGRAM REQUEST**  
Agricultural, Environmental & Developmental  
Economics

Last Updated: Myers, Dena Elizabeth  
01/19/2011

**Fiscal Unit/Academic Org** Agric, Envrnmtl & Devlp Econ - D1114  
**Administering College/Academic Group** Food, Agric & Environ Science  
**Co-administering College/Academic Group**  
**Semester Conversion Designation** Re-envisioned with significant changes to program goals and/or curricular requirements (e.g., degree/major name changes, changes in program goals, changes in core requirements, structural changes to tracks/options/courses)  
**Current Program/Plan Name** Agricultural, Environmental & Developmental Economics  
**Proposed Program/Plan Name** Agricultural, Environmental & Developmental Economics  
**Program/Plan Code Abbreviation** AEDECON-PH  
**Current Degree Title** Doctor of Philosophy

**Credit Hour Explanation**

Program credit hour requirements		A) Number of credit hours in current program (Quarter credit hours)	B) Calculated result for 2/3rds of current (Semester credit hours)	C) Number of credit hours required for proposed program (Semester credit hours)	D) Change in credit hours
Total minimum credit hours required for completion of program		135	90.0	90	0.0
Required credit hours offered by the unit	Minimum	54	36.0	36	0.0
	Maximum	100	66.7	70	3.3
Required credit hours offered outside of the unit	Minimum	35	23.3	20	3.3
	Maximum	81	54.0	54	0.0
Required prerequisite credit hours not included above	Minimum	0	0.0	0	0.0
	Maximum	0	0.0	0	0.0

**Program Learning Goals**

Note: these are required for all undergraduate degree programs and majors now, and will be required for all graduate and professional degree programs in 2012. Nonetheless, all programs are encouraged to complete these now.

- Program Learning Goals**
- Theory – To able to apply modern economic theory to analyze problems affecting human economic welfare, particularly problems associated with agriculture, the environment, and economic development.
  - Methods – To be able to apply modern econometric and computational methods to analyze problems affecting human economic welfare, particularly problems associated with agriculture, the environment, and economic development.
  - Applications – To contribute to the solution of real-world problems affecting human economic welfare, particularly problems associated with agriculture, the environment, and economic development.
  - Communication – To be able to communicate economic research findings and their policy implications effectively in visual, oral, and written form, to both lay and professional audiences.

**Assessment**

Assessment plan includes student learning goals, how those goals are evaluated, and how the information collected is used to improve student learning. An assessment plan is required for undergraduate majors and degrees. Graduate and professional degree programs are encouraged to complete this now, but will not be required to do so until 2012.

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Is this a degree program (undergraduate, graduate, or professional) or major proposal? Yes

Does the degree program or major have an assessment plan on file with the university Office of Academic Affairs? No

**DIRECT MEASURES (means of assessment that measure performance directly, are authentic and minimize mitigating or intervening factors)**

**Classroom assignments**

- Other classroom assessment methods (e.g., writing assignments, oral presentations, oral exams)

**Direct assessment methods specifically applicable to graduate programs**

- Candidacy exams
- Research proposals written and grants awarded
- Thesis/dissertation oral defense and/or other oral presentation
- Thesis/dissertation (written document)
- Publications

**INDIRECT MEASURES (means of assessment that are related to direct measures but are steps removed from those measures)**

**Surveys and Interviews**

- Alumni survey
- Student evaluation of instruction

**Additional types of indirect evidence**

- Job or post-baccalaureate education placement
- Student or alumni honors/recognition achieved
- External program review

**USE OF DATA (how the program uses or will use the evaluation data to make evidence-based improvements to the program periodically)**

- Analyze and discuss trends with the unit's faculty
- Analyze and report to college/school
- Make improvements in curricular requirements (e.g., add, subtract courses)
- Make improvements in course content
- Benchmark against best programs in the field

**Program Specializations/Sub-Plans**

If you do not specify a program specialization/sub-plan it will be assumed you are submitting this program for all program specializations/sub-plans.

**Pre-Major**

Does this Program have a Pre-Major? No

**Attachments**

- Restructuring of AED Economics PhD Program - Sep 30, 2010.pdf

*(Program Proposal. Owner: Miranda, Mario Javier)*

**Comments**

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**Workflow Information**

Status	User(s)	Date/Time	Step
Submitted	Sheller,Susan Marie	01/18/2011 07:53 AM	Submitted for Approval
Approved	Sheller,Susan Marie	01/18/2011 07:54 AM	Unit Approval
Approved	Pfister,Jill Ann	01/18/2011 08:03 AM	College Approval
Approved	Myers,Dena Elizabeth	01/19/2011 10:16 AM	GradSchool Approval
Pending Approval	Soave,Melissa A	01/19/2011 10:16 AM	CAA Approval

## AED Economics PhD Program Restructuring and Quarter to Semester Conversion

Draft of September 30, 2010

### Vision

We are a faculty of economists devoted to improving human welfare through the scientific investigation and analysis of problems arising in the interrelated areas of agricultural, environmental, and development economics. In support of our mission, we are committed to maintaining a high-quality graduate program that builds on our cross-cutting expertise and trains students generally to apply modern economic theory and methods to problems in these three and other closely-related areas.

### Objectives

The objectives of AED Economics graduate program restructuring are:

1. Enhance the quality of our graduate program by updating course content.
2. Improve program efficiency by reducing the number of courses and faculty contact minutes.
3. Increase curricular flexibility to permit rapid response to changes in faculty composition.
4. Raise the number of externally-funded students enrolled in our graduate courses.
5. Expand opportunities for programmatic collaboration with other university units.

### Graduate Program Learning Goals

AED Economics graduate programs share the following general learning goals for its graduates:

- *Theory* - To be able to apply modern economic theory to analyze problems affecting human economic welfare, emphasizing problems associated with agriculture, the environment, and economic development.
- *Methods* - To be able to apply modern econometric, mathematical, and computational methods to analyze problems affecting human economic welfare, emphasizing problems associated with agriculture, the environment, and economic development.
- *Applications* - To be knowledgeable of real-world problems affecting human economic welfare, particularly problems associated with agriculture, the environment, and economic development.
- *Communication* - To be able to communicate economic research findings and their policy implications effectively in visual, oral, and written form, to both lay and professional audiences.

## PhD Program – Curriculum

We propose adoption of a PhD program that that can be completed in four years of full-time study. As illustrated in Tables 3 and 4, the proposed program requires a minimum of 90 semester credit hours of coursework, the Graduate School minimum, divided into seven categories of courses:

- *Microeconomic Theory Courses.* Two courses devoted to microeconomic theory offered by the Department of Economics, each carrying six semester credit hours.
- *Econometric Theory Courses.* Two courses devoted to econometric theory offered by the Department of Economics, each carrying four semester credit hours.
- *Applied Quantitative Methods Courses.* Two courses that train students to apply econometric and computational techniques in economic research. Each course carries five semester credit hours and entails two 110-minute lectures and one 55-minute computer lab session per week. Each course involves extensive, practical, application-oriented problem sets supported through computer lab sessions led by a Graduate Teaching Assistant. Students are trained to master widely-used software packages such as Matlab and Stata.
- *Area Courses.* Three PhD-level courses covering the core theories, methods, and current issues in the areas of agricultural, environmental, and development economics. Each course carries four semester credit hours and entails two 110-minute lectures per week. Each course requires the writing of a term paper. The typical area course will be offered in two separate seven-week modules covering distinct topics and taught by distinct faculty members.
- *Frontier Workshop.* A PhD-level workshop devoted to the critical reading and discussion of seminal and more recent, cutting-edge scholarly publications in the areas of agricultural, environmental, and development economics. The course is divided into six distinct modules, on distinct topics, taught by distinct faculty member. Each module carries one semester credit hour and entails one 110 minute workshop per week offered over seven consecutive weeks. Each module will be organized around a reading list of approximately 25 seminal or cutting-edge scholarly publications selected by the instructor in consultation with the corresponding area curriculum committee (see below). Each week, students are required to read approximately 4 publications from the assigned reading list, to submit a one page summary of one of the publications, and, on a rotating basis, make a short overhead presentation on a publication and lead discussion on that publication. Readings discussed in class are expected to provide the basis for the Second-Year Research Manuscript and doctoral dissertation proposal. PhD students are required to take a minimum of four modules, carrying a total of four semester credit hours, but may take more than four if desired. Three of the modules will be offered during the first half of the semester and three of the modules will be offered during the second half of the semester.
- *PhD Seminar and Preparation Courses.* Second-, third- and fourth-year PhD students, respectively, will be required to attend 8 seminars per semester, to be selected from regularly scheduled AED Economics departmental seminars and non AED Economics seminars with relevant economic content approved by the student's adviser. Fourth-year PhD students will also be required to present their "job market" paper as a departmental seminar. Students receive one hour of credit per semester for seminar participation. Also,

students will be expected to register for 2 semester credit hours of independent study during the May terms following their first and second years, and use the time, respectively, to prepare for their microeconomic theory qualifying examination and to write their Second-Year research manuscript.

- *Electives.* Students are required to take a minimum of 34 additional semester credit hours of electives at the 6000 level or above, which may include any number of semester credit hours of AED Econ 9999, "Dissertation Research". Elective courses may be taken from units other than AED Economics, subject to the approval of the student's faculty adviser.

In order to maintain satisfactory academic progress, PhD students will be required at all times to maintain a minimum cumulative grade-point average of 3.0 in all graduate coursework and to: i) pass the Microeconomics Theory Qualifying Examination prior to the start of the second year; ii) fulfill the Second-Year Research Manuscript Requirement prior to the start of their third year; iii) pass the Candidacy Examination prior to the start of the fourth year, and iv) complete all PhD requirements, including passing the Final Oral Examination, within four calendar years of enrollment in the PhD program or before exceeding 160 graduate semester credit hours, whichever comes first. A PhD student who is not making satisfactory progress will be placed on departmental probation and may be denied departmental funding by the Director of Graduate Programs. By a majority vote of the Graduate Studies Committee, a student who has remained on departmental of Graduate School probation for two full semesters or one full semester and consecutive May-summer terms, may be dismissed from the PhD program, subject to approval by the Graduate School.

### PhD Program - Transition

PhD students who are concluding the first year of the PhD program when the university moves to semesters in the summer of 2012 will have completed the standard sequence of first-year required courses under the quarter-based program: Econ 640, 700, 740, 741, 804, 805, and 808 and AED Econ 801. In lieu of remaining quarter-course requirements, students will be required to complete the following new courses:

Number	Course	Cr
AED Econ 7120	Advanced Computational Methods	5
AED Econ 7210	Advanced Agricultural Economics	4
AED Econ 7220	Advanced Environmental Economics	4
AED Econ 7230	Advanced Development Economics	4
AED Econ 8200	Frontiers of AED Economics	4
AED Econ 7890	Workshop on Microeconomic Analysis	2
AED Econ 8890	Workshop on Research Methods	2
AED Econ 9890	Seminar in AED Economics	6

PhD students who are concluding the second year of the PhD program when the university moves to semesters in the summer of 2012 will have completed the standard sequence of first- and second-year required PhD courses under the quarter-based program: Econ 640, 700, 740, 741, 804, 805, and 808 and AED Econ 801, 802, 803, 806, and 809. In lieu of remaining quarter-course requirements, students will be required to complete the following new courses:

Number	Course Name	Cr
AED Econ 8200	Frontiers of AED Economics	4
AED Econ 9890	Seminar in AED Economics	4

PhD students who are concluding their third or subsequent year of the PhD program as the university moves to semesters in the summer of 2012 will have completed all course requirements and will only be required to enroll in one credit of ADE Econ 9890 in autumn and spring semester.

PhD students caught in the transition will still be required to complete a "Concentration Requirement", consisting of an additional 15 quarter credit hours carrying the same departmental prefix, and accumulate a total of 135 quarter credit hours, with one semester credit hour being the equivalent of 1.5 quarter credit hours.

### PhD Program – Discussion

The PhD area courses and frontier workshop possess general titles, allowing us to change their curricular content quickly and easily in response to new hires, resignations, retirements, and sabbatical leaves, and in response to changes in the professional needs of our students. Area courses and the frontier workshop will be divided into modules of sub-semester lengths in order to allow coverage of multiple topics by multiple instructors.

The proposed PhD curriculum, like our current PhD curriculum, does not have dedicated sequences of field courses like the Department of Economics. Nonetheless, PhD students can establish a professional identification with a particular field through their choice of a) frontier workshop modules, b) dissertation topic, and c) faculty adviser.

The frontier workshop modules could be organized in creative ways. For example, workshop participants could choose to discuss a series of papers written by a distinguished author and invite the author to participate via Skype or other remote audio-visual internet connection or in person if the author is a department faculty member, a faculty member from another unit in the university, or a visiting scholar.

The Concentration Requirement of the current PhD curriculum will be eliminated under the proposed semester curriculum. As in the past, we can expect most PhD students will take the PhD sequence in macroeconomic theory from the Department of Economics or financial theory sequence from the Department of Finance as part of their electives under the proposed program.

### Curricular Oversight

The curricular content of graduate program courses will be delegated to area curriculum committees of three or four Graduate Faculty members assigned by the Department Chair in consultation with the Director of Graduate Programs. Permanent area curriculum committees will be established for the areas of agricultural, environmental, and development economics. Curriculum committees will also be established temporarily for the remaining MS core and PhD methods courses, but will be dissolved after we make a full transition to the semester system, with their curriculum oversight responsibilities passing to the Graduate Studies Committee.

The area curriculum committees will meet annually in the spring to develop curricular and staffing recommendations for the subsequent academic year for the courses under their purview. The area curriculum committees will determine topics to be covered in their assigned area courses, the amount of time that will be allocated to these topics, and the main reading list for their assigned frontier workshops. The curriculum committees will advise the Undergraduate Program Leader on how to staff the area courses.



**Table 3. AED Economics PhD Program Required Courses - Semester System**

<i>Microeconomic Theory Courses</i>		<i>Cr</i>
Econ 8711/8712	Microeconomic Theory I	6
Econ 8713/8714	Microeconomic Theory II	6
 <i>Econometric Theory Courses</i>		 <i>Cr</i>
Econ 8731	Econometrics I	4
Econ 8732	Econometrics II	4
 <i>Applied Quantitative Methods Courses</i>		 <i>Cr</i>
AED Econ 7110	Advanced Empirical Methods	5
AED Econ 7120	Advanced Computational Methods	5
 <i>Area Courses</i>		 <i>Cr</i>
AED Econ 7210	Advanced Agricultural Economics	4
AED Econ 7220	Advanced Environmental Economics	4
AED Econ 7230	Advanced Development Economics	4
AED Econ 8200	Frontiers of AED Economics	4
 <i>Special Courses</i>		
AED Econ 7890	Workshop on Microeconomic Analysis	2
AED Econ 8890	Workshop on Research Methods	2
AED Econ 9890	Seminar in AED Economics	6
 <i>Electives and Dissertation Research (Minimum)</i>		 34
<i>Minimum Total Credit Hours</i>		90

**Table 4. Typical AED Economics PhD Program - Semester System**

<i>Year 1 Autumn</i>		<i>Cr</i>
Econ 8711/8712	Microeconomic Theory I	6
Econ 8731	Econometrics I	4
AED Econ 7110	Advanced Empirical Methods	5
<i>Year 1 Spring</i>		<i>Cr</i>
Econ 8713/8714	Microeconomic Theory II	6
Econ 8732	Econometrics II	4
AED Econ 7210	Advanced Agricultural Economics	4
<i>Year 1 May Term</i>		<i>Cr</i>
AED Econ 7890	Workshop on Microeconomic Analysis	2
<i>Year 2 Autumn</i>		<i>Cr</i>
AED Econ 7220	Advanced Environmental Economics	4
AED Econ 7230	Advanced Development Economics	4
AED Econ 9890	Seminar in AED Economics	1
Unspecified	Electives	6
<i>Year 2 Spring</i>		<i>Cr</i>
AED Econ 7120	Advanced Computational Methods	5
AED Econ 8200	Frontiers of AED Economics	4
AED Econ 9890	Seminar in AED Economics	1
Unspecified	Electives	5
<i>Year 2 May Term</i>		<i>Cr</i>
AED Econ 8890	Workshop on Research Methods	2
<i>Year 3</i>		<i>Cr</i>
AED Econ 9890	Seminar in AED Economics	2
AED Econ 8999	Pre-Candidacy Dissertation Research and Electives	28
<i>Year 4</i>		<i>Cr</i>
AED Econ 9890	Seminar in AED Economics	2
AED Econ 8999	Post-Candidacy Dissertation Research	4
		<i>Typical Total Credit Hours</i> 99