Fiscal Unit/Academic Org
Administering College/Academic Group
Co-adminstering College/Academic Group
Semester Conversion Designation
Proposed Program/Plan Name
Type of Program/Plan
Program/Plan Code Abbreviation
Proposed Degree Titie

Agric, Envmmt \& Devip Econ - D1114
Food, Agric \& Environ Science
Arts and Sciences
New Program/Plan
Master in Applied Economics
Professional degree program
MAE
Master in Applied Economics

## Credit Hour Explanation

| Progrann crecit hour requirements |  | A) Number of credit hours in current program (Quarter crecifi 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 credil hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total minimum credit hours required for completion of program |  |  |  | 31 |  |
| Required credit hours offered by the unit | Minimum |  |  | 11 |  |
|  | Maximum |  |  |  |  |
| Required credit hours offered outside of the unit | Minimum |  |  | 11 |  |
|  | Maximum |  |  |  |  |
| Required prerequisite credit hours not included above | Minimum |  |  |  |  |
|  | Maximum |  |  |  |  |

## 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

- Goal 1 (General) The purpose of this master's degree program is to train, in applied economics, those seeking professional careers in business, govemment agencies, international agencies, research institutions and nongovernmental organizations.
- Goal 2 (Knowledge): To obtain a breath of knowledge in applied microeconomics, applied macroeconomics, and applied econometrics.
- Goal 3 (Proficiency): To attain the technical proficiency to analyze, manipulate, and interpret data in order to apply econometric techniques to problems that arise in various professional contexts; to attain the intellectual proficiency necessary to
- discuss and communicate economic ideas, issues, and analyses in various professional contexts.

Goal 4 (Concepts and Methods): To learn core economic concepts and methods in order to understand the incentives and behaviors of economic agents, and how

- these agents interact in a modern economy; to understand how policy and institutions influence individuals, organizations and markets.

Goal 5 (Perspective): To appreciate academic writing in economics, to comprehend professional research material

- in applied economics, and to gain the ability to identify areas of potential application of economic and econometric analysis.


## 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.

Is this a degree program (undergraduate, graduate, or professional) or major proposal? Yes
Does the degree program or major have an assessment plan on flle 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

- Embedded testing (i.e. specific questions in homework or exams that allow faculty to assess students' attainments of a specific leaming goal)
- Other classroom assessment methods (e.g., writing assignments, oral presentations, oral exams)

Direct assessment methods specifically applicable to graduate programs

- Other: rubrics


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

## Surveys and Interviews

- Student survey
- Alumni survey
- Student evaluation of instruction
- Student interviews or focus groups


## Additional types of Indirect evidence

- Job or post-baccalaureate education placement
- Student or alumni honors/recognition achieved
- Peer review of program
- External program review
- Curriculum or syllabus review
- Grade review
- Comparison or benchmarking

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

- Meet with students directly to discuss their performance
- 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
- Make improvements in course delivery and learning activities within courses
- Periodically confirm that current curriculum and courses are facilitating student attainment of program goals
- 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

## Comments

- MAE Rationale.pdf: MAE Rationale Statement
(Program Rationale Statement. Owner: Sohngen,Brent Laboiteaux)
- MAE Assessmen_Final.pdf: MAE Assessment
(Other Supporting Documentation. Owner: Sohngen,Brent Laboiteaux)
- AEDE Letter of Support.pdf: AEDE Dept Letter
(Letter from Program-offering Unit. Owner: Sohngen,Brent Laboiteaux)
- MAE Course list.pdf: MAE Course List
(List of Semester Courses. Owner. Sohngen,Brent Laboiteaux)
- MAE Advising Sheet_r2.pdf: MAE Advising Sheet
(Semester Advising Sheat(s). Owner. Sohngen,Brent Laboiteaux)
- Economics letter in support of MAE.pdf: Economics Dept Letter
(Letter from Program-offering Unit. Owner; Sohngen,Brent Laboiteaux)
- CFAES_Dean_Let of Support AEDE.pdf: CFAES Dean's Letter
(Letter from the College to OAA. Owner: Sohngen,Brent Laboiteaux)
- A\&S_Deans letter of support 04.15.13.pdf: A\&S Dean's Letter
(Letter from the College to OAA. Owner: Sohngen, Brent Laboiteaux)
- MOU Masters in Applied Economics_AEDE_Economics.pdf: Memorandum of Understanding (Other Supporting Documentation. Owner: Sohngen, Brent Laboiteaux)
- MA_AppliedEcon_JointPDP_04_30_13.pdf: MAE Program Development Plan (Program Proposal. Owner. Sohngen, Brent Laboiteaux)
- Master of Applied Economics - GS letter.pdf: Graduate School Letter
(Other Supporting Documentation. Owner: Hemess, M Scott)
- JointMAEProgramDevelopmentPlan.pdf: MAE Program Development Plan
(Program Proposal. Owner: Sheldon,/an Martin)
- JointMAELettersofSupport.pdf: MAE Letters of Support
(Support/Concurrence Letters. Owner: Sheldon,lan Martin)

[^0]| Status | User(s) | Date/Time | Step |
| :---: | :---: | :---: | :---: |
| Submitted | Miller, Susan K. | 02/20/2013 03:12 PM | Submitted for Approval |
| Approved | Vodovotz, Yael | 02/21/2013 10:12 AM | Unit Approval |
| Revision Requested | Pfister, Jill Ann | 03/06/2013 11:19 AM | College Approval |
| Submitted | Sohngen, Brent Laboiteaux | 05/06/2013 08:46 AM | Submitted for Approval |
| Approved | Pfister, Jill Ann | 06/20/2013 09:24 AM | Unit Approval |
| Approved | Pfister, Jill Ann | 06/20/2013 09:25 AM | College Approval |
| Removed | Sheldon, lan Martin | 10/26/2013 01:37 PM | Ad-Hoc Approval |
| Revision Requested | Hemess,M Scott | 10/26/2013 01:38 PM | GradSchool Approval |
| Submitted | Sheldon, Ian Martin | 12/03/2013 09:10 AM | Submitted for Approval |
| Approved | Neal,Steven Michael | 12/12/2013 05:11 PM | Unit Approval |
| Approved | Neal,Steven Michael | 12/12/2013 05:12 PM | College Approval |
| Revision Requested | Hemess, M Scott | 02/18/2014 10:37 AM | GradSchool Approval |
| Submitted | Sheldon,lan Martin | 02/19/2014 08:46 AM | Submitted for Approval |
| Approved | Neal,Steven Michael | 02/19/2014 09:19 AM | Unit Approval |
| Approved | Neal,Steven Michael | 02/19/2014 09:20 AM | College Approval |
| Approved | Herness, M Scott | 02/19/2014 10:50 AM | GradSchool Approval |
| Pending Approval | Soave,Melissa A | 02/19/2014 10:50 AM | CAA Approval |

October 25, 2013
Ian Sheldon
Professor, Graduate Studies Chair
Dept. of Agriculture Environment, and Developmental Economics
The College of Food, Agriculture, Environmental Sciences
Hajime Miyazaki
Professor, Graduate Studies Chair
Dept. of Economics
The College of Arts \& Sciences

## Master of Applied Economics

lan and Hajime,
The Graduate School Curriculum Committee (GSCC) thanks both of you for attending its October 23rd meeting to discuss the proposal to establish a new graduate degree at Ohio State, Masters of Applied Economics. We felt the dialogue was engaging and productive. I'm writing to summarize the GSCC discussion of the proposal and outline the next steps in the approval process.

The GSCC found the proposal to be well developed and the obvious product of a careful and cooperative collaboration between your two offering units. I personally appreciated the welldeveloped learning goals which were included in the proposal.

Part of the purpose of the GSCC is to not only review the proposal but also to help prepare and strength it for its future approval steps through the University and the Ohio Board of Regents. In that spirit, the GSCC had the following comments and requests for clarification and/or additional information:

- Although this is a new degree, there are no new courses begin offered with its creation. How the degree is unique based on its curriculum could be better explained. The GSCC felt that a comparative appendix of the two existing departmental degrees (MA, MS) with this new degree (MAE) would be helpful to further illustrate its curricular uniqueness.
- The degree requires that at least six of nine elective credit hours be at the 6000 level. Yet, only six of the fourteen courses offered are 6000 courses. Further, from our discussion, it was felt that there would be small demand for three of these courses. The GSCC recommends that your units think of broadening of course offerings at the 6000 level.
- The prospective enrollment for the degree is anticipated to be between 40 to 50 MAE students per year. Little justification is provided for this number. It would be useful to provide a more quantitative basis for future enrollment, particularly for the approval steps which will be required by the Ohio Board of Regents.
- Faculty who would participate in the administration of this degree must hold graduate faculty status with the Graduate School. Please add that the faculty described in Section 3 (Administrative Arrangement) must hold graduate faculty status.
- The minimum GPA for admission may be changed from 3.01 to $\mathbf{3 . 0}$.


## The Ohio State University

- The proposal mentions plans for on-line delivery of courses. It would be helpful to know the percentage of courses envisioned one day to be offer in a distance format. This could have implications for future approval steps for the program.

Please submit a revised copy of the proposal on curriculum.osu.edu. The GSCC would like to have a final look at the updated version prior to its moving forward in the approval process.

The proposal should then be ready for review by the Graduate Council. Following Graduate Council, the proposal will be released to the Council on Academic Affairs for their review.

Please don't hesitate to contact me with questions or clarifications.
Many thanks,


Scott Hermes
Associate Dean
The Graduate School

March 25, 2013

## RE: AEDE Support for joint Masters of Applied Economics

To whom it may concern:

It is with excitement that I write this letter of support on behalf of the Department of Agricultural, Environmental and Development Economics (AEDE) for the proposed Masters of Applied Economics joint with the Department of Economics. This effort provides a true opportunity for further collaboration between two very strong departments on campus.

On November 21, 2012, the faculty of the AEDE voted unanimously in support of the proposal.
Sincerely,


Timothy C. Haab
Professor and Chair

The Ohio State University Graduate School
250 University Hall
230 N. Oval Mall
Columbus, OH 43210
To whom it may concern,
On behalf of the College of Food, Agricultural, and Environmental Sciences (CFAES) it is our pleasure to submit this letter of support for the proposed joint Masters of Applied Economics between the Department of Agricultural, Environmental and Development Economics (AEDE) in CFAES and the Department of Economics in the College of Arts and Sciences. This new joint program represents a collaboration between two programs on campus with historically strong PhD programs, and given the spirit of collaboration and the dedication of the two departments, the Masters of Applied Economics has the key elements necessary to build a large and successful program.

The College of Food, Agricultural, and Environmental Sciences strongly supports the collaborative Masters of Applied Economics.

Sincerely,


Bruce A. McPheron
Vice President for Agricultural Administration \& Dean

## Department of Ecomondics

410 Arps Hall
1945 N orth High Street
Columbus, OH 43210-1172
Phone (614) 292-6701
Fax (614) 292-3906

April 12, 2013

RE: Department of Economics Support for joint Masters of Applied Economics

To whom it may concern:

I write on behalf of the Department of Economics to express enthusiastic support for the proposed Masters of Applied Economics joint with the Department of Agricultural, Environmental, and Development Economics. This new degree program provides a good opportunity for collaboration between the two departments in an endeavor that will fill a significant gap at OSU.

On November 29, 2012, the faculty of the Department of Economics voted 24 to 1 in support of the proposal.

Sincerely,


David Blau
Chair, Department of Economics

College of Arts and Sciences
186 University Hall
230 North Oval Mall
Columbus, OH 43210
Phone (614) 292-1667
Fax (614) 292-8666
Web artsandsciences.osu.edu

April 15, 2013
Council on Academic Affairs
coo Office of Academic Affairs
203 Bricker Hall
190 North Oval Mall
CAMPUS
Dear Council on Academic Affairs Members:
We are pleased to submit for your review a proposal for a professional program, Master in Applied Economics (MAE). The distinctive quality of this program is a result of faculty collaboration between two strong departments, Economics in the College of Arts and Sciences (ASC), and Agricultural, Environmental, and Development Economics (AEDE) in the College of Food, Agricultural and Environmental Sciences. Each department delivers its unique but complementary disciplinary expertise in this program, reflecting the continuing partnership between them that has been beneficial to graduate students over the years.

As is noted in the proposal, there is demand for a professional master's program in applied economics in the state of Ohio and across the country, and these two departments have the capacity to meet this demand. Given the apparent timeliness of this proposal and the strong academic requirements of the program, we strongly encourage approval of the Master in Applied Economics.

Sincerely,


Gifford Weary, Divisional Dean
Social and Behavioral Sciences
College of Arts and Sciences


Executive Dean and Vice Provost College of Arts and Sciences

## MEMORANDUM OF UNDERSTANDING

Regarding the establishment of a Professional (tagged) Masters in Applied Economics degree program
March 27, 2013
The Department of Agricultural, Environmental, and Development Economics (AEDE) and the Department of Economics (ECON) agree to collaborate in the establishment of a new Professional (tagged) Masters in Applied Economics (MAE) degree program, offered jointly by the two departments. This document spells out the terms of the agreement between the two units. The details of the degree program are contained in the attached proposal.
A. The program will consist of required courses and electives, shared between the two departments as specified in the attached proposal.
B. A committee of four faculty members, two from each department, will administer the program. Each department chair will appoint committee members from his or her department. The committee will be responsible for all decisions regarding the program, within the parameters established in the attached proposal.
C. There will be a single administrative office for the program, located in one of the departments, determined by mutual agreement between the two departments. The administrative office will be initially located in AEDE, with that location subject to renegotiation after an initial three year period.
D. Tuition revenue will be shared between the home colleges of the two departments as earned and delivered through the university budget model.
a. Each college will share revenue with its respective department according to separate and independent agreements between the college and department.
b. The administrative office will initially be located in AEDE. A one quarter time administrative associate will be required to administer the degree program, at a cost currently estimated at $\$ 12,500$. This cost will be shared by the two units in proportion to credit hours taken by master's students in each department. For example, if $45 \%$ of the credit hours are generated by Econ courses, the College of Arts and Sciences will remit $45 \%$ of $\$ 12,500$, or $\$ 5,625$ to CFAES.
E. Each department may unilaterally withdraw from this agreement with one year's prior notice. Upon dissolving this agreement, each department has the right to establish its own independent Masters in Applied Economics program and each department has the right to retain the name Masters in Applied Economics. Further, each department shall honor the other department's launching of a separate Masters in Applied Economics in the concurrence process. The department that initiates dissolution of the agreement in order to establish its own independent MAE will differentiate its program from the program of the other department according to the substantive focus of the program or the target group of students.

April 8, 2013
David Blau, Chair, Department of Economics


Gifford Weary, Dean, Social and Behavioral Sciences


Linda Martin, Associate Dean for Academic Affairs, College of Food, Agriculture, and Environmental Science


Bruce McPherfion, Dean and VP for Agricultural Administration, College of Food, Agriculture, and Environmental Science

# Program Development Plan for Master in Applied Economics by <br> Department of Agricultural, Environmental and Development Economics College of Food, Agricultural and Environmental Sciences \& <br> Department of Economics <br> College of Arts and Sciences 

The Ohio State University

## 1. Designation of the New Degree Program

We propose to develop a tagged, professional degree program called Master in Applied Economics (MAE). This program will provide a graduate-level curriculum and training in applied economics for individuals seeking professional careers in business, banking and finance, consulting firms, government agencies, international agencies, research institutions, and nongovernmental organizations.

The MAE degree is a non-thesis degree. The proposed MAE program is jointly developed, and will be jointly administered, by the Department of Economics and the Department of Agricultural, Environmental, and Development Economics (AEDE). The MAE program is a separate degree program from their existing graduate academic degree programs, because the focus and goal of the MAE program are specifically tailored for professional practice in applied economics. While promulgating their joint MAE program, therefore, each department will continue to offer its own MA and MS degrees, respectively. The MAE program will emphasize the application of economic theory and empirical methodology relevant and useful to practitioners of economic analysis. The MAE graduates will be proficient, for example, in benefit-cost analysis of business or policy alternatives, and will be able to provide critical perspectives on various analytic decision issues.

Being a professional stand-alone program, the proposed MAE degree is not meant to serve as a prerequisite or preparatory degree to enter the MA or MS program in either the Economics or AEDE Department. Students are not allowed to enroll in the MAE program while being enrolled in any other graduate degree program administered by either the Economics or AEDE Department.

## 2. Description of Proposed Curriculum

The MAE program requires 31 credit hours of coursework, which satisfies the University requirement for a non-thesis master's degree. This curriculum is composed of a core set of economics courses, a core set of applied economics courses, and a set of electives. The core courses provide students with a comprehensive understanding of key concepts, methodology and analytical tools of economic analysis. These core courses are selected for their level and content from the set of courses that are currently offered by the two departments.

## Joint MAE Program Development Plan

The core is supplemented with electives drawn from applied fields. Elective courses apply theory and empirical methods to issues and problems specific to major applied field areas. Students are required to take a minimum of 9 credit hours in electives from the set of approved electives, and at least 6 credit hours must be from either AEDE or economics courses. With approval of the MAE Director, students may take additional electives from other schools or departments, such as the John Glenn School of Public Administration, the School of Environment and Natural Resources, and the Statistics Department. Under special circumstances, and subject to approval of the MAE Graduate Studies Committee, students will be permitted to deviate from the standard MAE program.
$\left.\begin{array}{|l|c|}\hline \text { Core Economics Courses (11 credit hours) } & \begin{array}{c}\text { Credit } \\ \text { Hours }\end{array} \\ \hline \text { Econ 6711 Survey of Microeconomics } & 4 \\ \hline \text { Econ 6721 Survey of Macroeconomics } & 4 \\ \hline \text { Econ 6700 Survey of Mathematical Methods in Economics } & 3 \\ \hline \text { Core Applied Economics Courses (11 credit hours) } & 3 \\ \hline \text { AED Econ 5330 Benefit-Cost Analysis } & 4 \\ \hline \text { AED Econ 6110 Applied Quantitative Methods I } & 4 \\ \hline \text { AED Econ 6120 Applied Quantitative Methods II } & \\ \hline \begin{array}{l}\text { Elective Courses (Minimum 9 credit hours-At least 6 } \\ \text { hours must be at the 6000 level or higher from AEDE or } \\ \text { Econ courses) }\end{array} & \\ \hline \text { AED Econ 5250 Commodity Futures and Options Markets }\end{array}\right\}$

Except for one new 6000 level AEDE course, the proposed MAE curriculum consists of existing courses in the Economics and AEDE programs. Neither Economics nor AEDE, however, can meet the need of targeted MAE students within their own respective degree programs. The Economics graduate program has exclusively been for PhD students, who obtain

[^1]
## Joint MAE Program Development Plan

an MA in economics en route to their PhD in economics. The Economics Department offers 6000 level courses for non-economics OSU graduate students pursuing a Graduate Minor in Economics, which is not a degree but a transcript-designated certification program. The Graduate Minor in Economics delivers the basic methods and concepts in three core economics courses, and does not require applied economics courses. The proposed MAE degree also differs from the MS in AEDE, which is established as an academic degree with an MS thesis option, research requirements, and its own MS examinations. The proposed MAE program reconfigures the existing courses in Economics and AEDE to provide the scope and level that are fitting to the need of a professional master's training while taking advantage of the strengths and scope of the two departments' curricula: core economics training (Economics) and expertise in applied economics (AEDE). Please see the appendices 1 and 2 for a summary of the existing MA in Economics and MS in AEDE, to draw more detailed distinctions between them and the proposed MAE.

Some of the MAE courses will go online in accordance with the OSU's investment on distant learning. Specifically, AEDE plans to proceed with its decision to offer AED Economics 5330 online given its centrality in an applied economics curriculum. Economics plans to move forward with its experimental offering of Economics 6700 (Survey of Mathematical Methods in Economics), which, if actual demand warrants, may even be offered to prospective MAE students. Future online possibilities include the three technical courses Economics 6701, 6731 and 6732 in econometrics and economic statistics.

## 3. Administrative Arrangement

The MAE will be administered by a four member graduate studies committee drawn from graduate faculty in the Department of Economics and the Department of Agricultural, Environmental, and Development Economics. Two members of the MAE Graduate Studies Committee will be drawn from each department, appointed by the chair of each department. It is not required but expected that the Graduate Studies Chair of each department will normally serve on the MAE Graduate Studies Committee. The Committee will elect among themselves the chair and co-chair of the MAE Graduate Studies Committee by a simple majority rule, but in the absence of a majority vote the two positions will be appointed by a joint consultation of the chairs of the two departments. The Committee has curricular oversight for the degree and will make admissions decisions. The Committee will review students' progress in the program, facilitate opportunities for special studies or internships, and assign advisors based on enrollees' interests and career goals.

Administration for the degree will be coordinated by the MAE Program Coordinator, who, together with the Chair/Co-Chair, will implement the Committee policies, and will communicate program information with applicants, incoming students, and existing students. The MAE Program Coordinator will also attend the MAE Graduate Studies Committee meetings as its secretary and recorder. Given the economies of office space and administrative personnel of the two departments, for the foreseeable future, the position of the MAE Program Coordinator shall be assumed by the AEDE graduate program coordinator who currently holds a 75 percent appointment for the AEDE graduate program administration. Her appointment will be increased by an additional $25 \%$ to assume the coordinator's role for the new MAE program.

Joint MAE Program Development Plan

## 4. Evidence of Need

There is a growing need nationwide and internationally for graduates trained in technical and analytical skills to address an array of applied economic issues and problems. One indicator of potential demand for our proposed MAE program is the size of similar MAE programs at other universities, such as the University of Michigan, the University of Maryland and Johns Hopkins University. The MAE program at the University of Michigan, whose scope and goal are probably closest to our proposed program, has 149 new students enrolled as of autumn 2012.

There are a number of MA programs in economics at Ohio universities, but their focus is on academic curricula in general economics with field emphasis such as financial economics, banking, labor, or education. Each of them enrolls 10-40 students per year. The MA curriculum of the OSU Department of Economics is embedded in its PhD program with no separate or stand-alone MA admissions; PhD students earn their MA in Economics en route to their PhD , usually at the end of their first year. Almost all ranked PhD programs in economics award their MA's in this fashion. Still, our Economics PhD program receives about two dozen eager inquiries for an applied economics master's degree (out of over 350 applications) every year. Up to a dozen of our undergraduate majors in economics profess interest in pursuing professional master's in applied economics every year. Our colleagues routinely receive inquiries for potential master's degrees when they travel abroad for their academic missions. Despite our emphasis on academic placements, our economics PhD and MA students have also been placed in major financial firms, state and federal government functions, consulting firms, international organizations, research institutions, and foreign central banks.

Most peer agricultural or applied economics departments offer MS degrees, usually with a research requirement; they are not tagged professional degrees. These programs enroll 10-20 students per year. Our AED Economics MS program also enrolls an average of 12 students each year, most of whom choose the Plan B option in order to reduce their time to degree. The exit and post placement interviews of graduate students in Economics and AEDE indicate that they, as well as employers, regard analytical skills learned as the most important component for success in their professional careers.

The state and national enrollment statistics at existing MA/MS level programs indicate that there is a significant potential demand for a professional master's degree in economics. As academic disciplines and professional markets have become global, there has been a rising demand for U.S. trained applied economists from foreign governments, schools and professional organizations. Many of the applied economics or policy economics master's programs already have a large segment of applications coming from foreign countries. A professional master's program that is intensely oriented toward applied economic analysis has intrinsic value and applications. The State of Ohio can directly benefit from the corps of graduate students trained with the skills and mindset to carry out applied economic analysis.

Currently there is no professional master's program in applied economics in the State of Ohio, and a joint launching of an MAE program by OSU Economics and AED Economics is a natural way to tap into the absolute and relative strengths of the two departments. AEDE and Economics have a long collaborative history in graduate education, especially at the curricular level, and a joint MAE will prove to be a major cooperative milestone benefitting, not only the

## Joint MAE Program Development Plan

two departments, but OSU's mission to provide productive human capital to the State of Ohio. With OSU's institutional reputation and the quality of economics faculty, we believe that there is an intrinsic value to the proposed MAE program, and thus that we can deliver a program that is, not only viable, but thriving.

## 5. Prospective Enrollment

For reasons explained in the above section on "Evidence of Need", and consistent with a reported long-term increase in the national and worldwide demand for master's level training, both Economics and AEDE departments perceive a long-term surge for professional master's degree in economics. Based on the target demographics of undergraduates looking for a $4+1$ master's program, professionals looking to further their education with a tools-based master's degree, and international students, we anticipate being able to attract classes of 40-50 MAE students per year. AEDE currently has in place a comprehensive communications and marketing team who are ready to actively market the MAE to relevant audiences, both on and offcampus. As Ohio State invests further into on-line delivery of courses, we anticipate that our planned offerings of on-line courses will also significantly increase the size of the target audience for this degree.

## Projected enrollment for first five years

|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Annual Enrollment | 15 | 25 | 35 | 45 | 50 |

These projected enrollment numbers are conservative estimates based on our surveys of masters programs elsewhere and our experience with prospective applicants, which we have detailed in the preceding section on "Evidence of Need".

Application Deadlines: Applications must be submitted online via The Ohio State University Graduate Admissions website. All applicants must submit: the official transcripts of all undergraduate and graduate institutions they attended, three letters of recommendation, a statement of purpose, a curriculum vitae, and Graduate Record Examination (GRE) scores. As explained further below, a foreign applicant whose first language is not English must also submit Test of English as a Foreign Language (TOEFL) scores. The deadline to apply for admission to the class starting the following Autumn Semester is January 1 for domestic applicants and December 1 for foreign applicants.

Admission Standards: Candidates for admission must satisfy all criteria for admission set forth in Section II. 2 of The Ohio State University Graduate School Handbook. A prospective applicant must have a minimum grade point average of 3.00 on a 4 point scale, or its equivalent, in all previous undergraduate coursework. It is recommended but not required that an applicant's GRE score places him or her at least in the $75^{\text {th }}$ percentile averaged over the quantitative and verbal scores on the GRE.

International Applicants: Foreign applicants whose first language is not English must submit Test of English as a Foreign Language (TOEFL) scores unless such an applicant possess a four-year undergraduate degree from a US college or university. It is required that a foreign applicant's TOEFL score is at least 550 on the paper test, 215 on the computer test, or 80 on the

## Joint MAE Program Development Plan

internet test. Upon arrival, foreign students are required to take an English placement examination and must complete "English as a Second Language (ESL)" requirements within a timeframe set by the Graduate School.

Prerequisites: Undergraduate major in economics is not a prerequisite for MAE applications. Entering MAE students are assumed to have successfully completed courses in Intermediate Microeconomics and Macroeconomics, Calculus, and Statistics. The equivalent courses at The Ohio State University are, respectively, Economics 4001 and 4002, Mathematics 1131 or Mathematics 1151, and Statistics 1450. Students who have not successfully completed all of these courses may be admitted to the MAE program provisionally, subject to conditions stipulated by the MAE Graduate Studies Committee.

Academic Progress: In order to maintain satisfactory academic progress, an MAE student must maintain a cumulative grade point average of 3.0 or better in all graduate courses at OSU. Students who fail to maintain satisfactory academic progress will be placed on Academic Probation by the Graduate School.

## 6. Enrollment of Underrepresented Groups

Our marketing plan will focus on advertising to and attracting a wide range of applicants to the program. Both Economics and AEDE have a history of targeting and attracting underrepresented groups, and the number and quality of students from underrepresented groups entering our MS and PhD programs have been increasing. We will continue our effort to reach out to interested students at 1890 Land Grant Institutions (i.e., historically black colleges), and our marketing team will work to explore additional avenues to attract students from underrepresented groups.

## 7. Faculty and Facilities Available

Existing OSU courses will support the curriculum. Existing faculty and administration in the two departments will be sufficient to handle the expected increased advising load.

## 8. Need for Additional Facilities and Staff

The graduate program coordinator in AEDE will move from a $75 \%$ to a $100 \%$ appointment to handle the increased administrative load with the new degree. The courses in the program are already taught but will require larger classroom space as enrollment increases.

## 9. Projected Additional Cost

The key additional costs will be the initial marketing costs, the increase in the time commitment of the graduate program coordinator, and possibly the supplemental salaries for faculty members who may shoulder additional administrative duties. These costs, however, are expected to be modest.

## Master's in Applied Economics

- Approved by AED Economics on November 21, 2012
- Approved by Economics on November 29, 2012


# Joint MAE Program Development Plan 

## APPENDIX 1: MS PROGRAM IN AEDE

## A. MS-MAE Differences

The existing MS in AEDE is a stand-alone academic program and differs from the proposed MAE. The most important difference is that the MS in AEDE requires an MS thesis or MS examination following research courses. The proposed MAE program delivers the applied economics curriculum to meet the demand for a wider set of practitioners in economic methods and techniques. The differences between the MS in AEDE and the MAE are listed as follows in terms of program courses and requirements:
(i) AEDE's Applied Microeconomics courses required for the MS in AEDE are replaced by the Surveys of Microeconomics and Macroeconomics offered by Economics, to broaden the training in core methods and concepts in economics and to contributes to a wider perspective and more robust application of economics.
(ii) Benefit-Cost Analysis is added to the required Quantitative Methods courses offered by AEDE, and also the Survey of Mathematical Methods in Economics is added as a required course, to provide a robust training in applied economic techniques.
(iii) Applied Microeconomics II is offered as an elective course by AEDE, along with the other recently-designed AEDE applied economics electives
(iv) The availability of additional electives offered by Economics including the 6000 level courses in econometrics and economic statistics.
(v) The MAE requires neither the MS thesis nor the MS level examination.

## B. MS Course Requirements

The MS program requires a student to complete 30 credit hours of coursework:

| Core Applied | Microeconomics Courses | Cr |
| :--- | :--- | :---: |
| AED Econ 6010 | Applied Microeconomics I | 4 |
| AED Econ 6020 | Applied Microeconomics II | 4 |
| Core Quantitative | Methods Courses | Cr |
| AED Econ 6110 | Applied Quantitative Methods I | 4 |
| AED Econ 6120 | Applied Quantitative Methods II | 4 |
| Elective Courses | (Minimum 9 hours) | Cr |
| AED Econ 5250 | Commodity Futures and Options Markets | 2 |
| AED Econ 6200 | International Economics and Policy | 3 |
| AED Econ 6300 | Environmental and Resource Economics | 3 |
| AED Econ 6400 | International and Regional Development | 3 |
| AED Econ 5330 | Benefit-Cost Analysis | 3 |
| Free Electives and/or | Thesis Research |  |
| AED Econ 8999 | Research Hours | As Needed |
| Total Hours (Minimum) | 30 |  |

## Joint MAE Program Development Plan

Under special circumstances, and subject to approval of the Director of Graduate Programs, students will be permitted to deviate from the standard MS program. Foreseeable exceptions include part-time students, students wishing to prepare for the PhD program, students enrolled in dual MS degree programs, and students who have compelling reason to write a master's thesis.

## C. Program Options

MS students must elect one of two degree options. Under the Thesis Option, a student must submit a master's thesis approved by his/her Examination Committee and pass a final oral defense administered by his/her Examination Committee. Under the Non-Thesis option, a student must pass a final examination administered by his/her Examination Committee that includes a written portion and, if the Examination Committee chooses, an oral portion. Students are expected to elect the Non-Thesis option, unless they plan to pursue a PhD in AED Economics or related field or would otherwise benefit professionally from an intensive research experience.

## Appendix 2: MA Degree in Economics

## A. General

The Department of Economics offers two advanced degrees in economics: the MA and the PhD. The MA degree program is structured to train students in core concepts and analytical techniques that are essential to academic and professional proficiency in economics. The PhD degree program stresses the development of advanced theoretical and quantitative skills as well as an in-depth knowledge of several specialized field areas to enable original academic research in economics. Our MA program is embedded in our PhD program. We selectively admit students who intend to pursue a PhD, and we award MA's en route to their PhD's ${ }^{3}$. We do not offer separate terminal MA admissions, but only ex novo PhD admissions. An MA in economics is not a prerequisite for admission to our PhD program.

Students' proficiency in economics is certified by passing Qualifying Examinations in microeconomics and macroeconomics at the end of the first year. The potential outcomes of a Qualifying Examination are: PhD Level Pass, MA Level Pass, or Fail. Students who pass both Qualifying Examinations at least at the MA level are eligible for the MA in Economics, provided that they meet all other requirements. Only students who pass both Qualifying Examinations at the PhD level may proceed towards the fulfillment of course and research work required by the PhD .

The Department of Economics provides a Plan B curriculum (comprehensive MA examination without thesis requirements) for the MA degree. The number of credit hours

[^2]Joint MAE Program Development Plan
required for our MA in Economics is 32 graduate credit hours approved by the Economics Director of Graduate Studies (DGS). The MA courses are embedded in the first-year PhD curriculum that is structured to enable students to learn core concepts and techniques necessary to attain professional and academic proficiency in advanced economics.

## B. MA Examination

The Master's Examination Committee is composed of the student's advisor, who serves as chair of the committee, the chairperson of the Microeconomics Qualifying Examination Committee, and the chairperson of the Macroeconomics Qualifying Examination Committees. The MA Examination is offered concurrently with the Qualifying Examinations and consists of separate examinations in microeconomic and macroeconomic theory. Each member of the Qualifying Examination Committee grades the relevant examination as MA Pass or Fail. A necessary condition for passing the Master's Examination is that the student obtains the MA Pass grade in both Qualifying Examinations. The Master's Examination Committee has the final authority to determine whether or not a student has passed the Master's Examination. The student passes the Master's Examination only if the Master's Examination Committee unanimously judges the student's examination to be of MA quality. If a student does not pass the Master's Examination, the Master's Examination Committee may, under the advisement of the GSC, require the student to retake one or both of the Qualifying Examinations. No student may take each Qualifying Examination more than twice.

## C. MA Course Requirements

All students must demonstrate competence in microeconomic theory, macroeconomic theory, and econometrics, by successfully completing relevant core courses listed below. A student's proficiency in microeconomic and macroeconomic theory is tested in the Qualifying Examinations. Successful completion of the micro, macro and econometrics core courses is a prerequisite to all advanced graduate field courses in economics.

Microeconomic Theory Core (Micro Core) 12 credit hours: the micro theory core sequence consists of four courses, Economics $8711,8712,8713$ and 8714 , each 3 credit hours. Proficiency in micro theory is tested in the Micro Qualifying Examination.

Macroeconomic Theory Core (Macro Core) 12 credit hours: the macro theory core sequence consists of four courses, Economics $8821,8822,8823$, and 8824 , each 3 credit hours. Proficiency in macro theory is tested in the Macro Qualifying Examination.

Econometrics Core ( 8 credit hours): Students are required to demonstrate competence in econometric methods through the satisfactory completion of Economics 8731 and 8732, each 4 credit hours.

Joint MAE Program Development Plan
Proposed Master in Applied Economics (MAE) Semester Advising Sheet

| The proposed MAE is a one-year program. |  |  |
| ---: | ---: | :--- |
| Autumn Semester | Spring Semester | Summer Term* |
| (Minimum 14 credit hours) | (Minimum 14 credit hours) | English as a Second Language <br> Courses* |
| Economics 6711 (4) | Economics 6721 (4) |  |
| Economics 6700 (3) | AED Economics 6120 (4) | ESL 5902 (3) |
| AED Economics 6110(4) | Elective (3) |  |
| AED Economics 5330 (3) | Elective (3) |  |
| Elective (3 or 4) |  |  |
| Total Credit Hours: Minimum 31 credit hours |  | ESL 5901.05 (5) |

*A foreign graduate student whose first language is not English must take "English as a Second Language (ESL)" courses in order to satisfy the OSU English composition requirements before a graduate degree may be awarded. A foreign MAE student may take the required ESL courses in the summer term either preceding the autumn semester or following the spring semester. Specifically, a foreign student must successfully complete ESL 5902. Depending on the OSU written English placement test scores, a foreign student may be required to take ESL 5901 or 5901.05 before taking ESL 5902. If a foreign MAE student takes an ESL course, the total credit hours during a regular semester can possibly exceed 18 credit hours, the maximum allowable credit hours set by the Graduate School. A foreign student may thus have to take the required ESL courses during the summer session. A foreign graduate student can be exempt from ESL 5902 if the student meets one of two conditions: (1) the student's TOEFL score exceeds the level determined by ESL for exemption; (2) the student's score in the OSU written English placement test exceeds the level determined by the ESL for exemption.

## List of Electives

| Elective Courses (Minimum 9 credit hours-At least 6 hours must <br> be at the $\mathbf{6 0 0 0}$ level or higher from AEDE or Econ courses) | Credit <br> Hours |
| :--- | :---: |
| AED Econ 5250 Commodity Futures and Options Markets |  |

[^3]
## Proposed Master in Applied Economics Semester Course List

| Core Economics Courses (11 credit hours) | Credit <br> Hours |
| :--- | :---: |
| Econ 6711 Survey of Microeconomics | 4 |
| Econ 6721 Survey of Macroeconomics | 4 |
| Econ 6700 Survey of Mathematical Methods in Economics | 3 |
| Core Applied Economics Courses (11 credit hours) | 3 |
| AED Econ 5330 Benefit-Cost Analysis | 4 |
| AED Econ 6110 Applied Quantitative Methods I | 4 |
| AED Econ 6120 Applied Quantitative Methods II |  |
| Elective Courses (Minimum 9 credit hours -At least 6 hours <br> must be at the 6000 level or higher from AEDE or Econ courses) | 2 |
| AED Econ 5250 Commodity Futures and Options Markets | 4 |
| AED Econ 6020 Applied Microeconomics II | 3 |
| AED Econ 6200 International Economics and Policy | 3 |
| AED Econ 6300 Environmental and Resource Economics | 3 |
| AED Econ 6400 Regional and International Development ${ }^{2}$ | 3 |
| AED Econ 6401 International Economic Development | 3 |
| Econ 5001 Game Theory in Economics | 3 |
| Econ 5250 National and International Money Markets | 3 |
| Econ 5660 Financial Aspects of International Trade | 3 |
| Econ 5700 Industrial Organization | 3 |
| Econ 5720 Comparative Institutional Analysis of Firms and Markets | 3 |
| Econ 5850 Labor Economics | 3 |
| Econ 6701 Survey of Statistical Methods in Economics | 3 |
| Econ 6731 Survey of Econometric Methods I | 3 |
| Econ 6732 Survey of Econometric Methods II |  |

[^4]Joint MAE Program Development Plan

## Proposed Master in Applied Economics <br> Program Rationale Statement

The proposed Master in Applied Economics (MAE) will provide a graduate-level curriculum and training in applied economics for individuals seeking professional careers in business, banking and finance, consulting firms, government agencies, international agencies, research institutions, and non-governmental organizations. The program will emphasize the application of economic theory and empirical methodology relevant and useful to practitioners of economic analysis. MAE graduates will be proficient, for example, in benefit-cost analysis of business or policy alternatives, and will be able to provide critical perspectives on various analytic decision issues.

There is a growing need nationwide and internationally for graduates trained in technical and analytical skills to address an array of applied economic issues and problems. One indicator of potential demand for our proposed MAE program is the size of similar MAE programs at other universities, such as the University of Michigan, the University of Maryland and Johns Hopkins University. The MAE program at the University of Michigan, whose scope and goal are probably closest to our proposed program, has 149 new students enrolled as of autumn 2012. Although there are a number of MA programs in economics at Ohio universities, there is no similar program to the one proposed in this state. Joint launching of an MAE program by OSU Economics and AED Economics is a natural way to tap into the absolute and relative strengths of the two departments. AEDE and Economics have a long collaborative history in graduate education, especially at the curricular level, and a joint MAE will prove to be a major cooperative milestone benefitting, not only the two departments, but OSU's mission to provide productive human capital to the State of Ohio. With OSU's institutional reputation and the quality of economics faculty, we believe that there is an intrinsic value to the proposed MAE program, and thus that we can deliver a program that is, not only viable, but thriving.

# Proposed Master in Applied Economics Learning Goals and Assessments 

Goal 1 (General) The purpose of this master's degree program is to train, in applied economics, those seeking professional careers in business, government agencies, international agencies, research institutions and nongovernmental organizations.

Goal 2 (Knowledge): To obtain a breath of knowledge in applied microeconomics, applied macroeconomics, and applied econometrics.

Goal 3 (Proficiency): To attain the technical proficiency to analyze, manipulate, and interpret data in order to apply econometric techniques to problems that arise in various professional contexts; to attain the intellectual proficiency necessary to discuss and communicate economic ideas, issues, and analyses in various professional contexts.

Goal 4 (Concepts and Methods): To learn core economic concepts and methods in order to understand the incentives and behaviors of economic agents, and how these agents interact in a modern economy; to understand how policy and institutions influence individuals, organizations and markets.

Goal 5 (Perspective): To appreciate academic writing in economics, to comprehend professional research material in applied economics, and to gain the ability to identify areas of potential application of economic and econometric analysis.

We measure the success of our program using two main criteria: program completion rate and placement record. In terms of the program completion rate, we set our benchmark to be at least $80 \%$ of the entering class. Given the purpose of our program, we want to see a high proportion of post-MAE placements in economics-related professional fields. In addition, we want our placements to achieve lifetime annual earnings above others without the MAE degree. We also expect that some of our MAE graduates will choose, or aspire, to enter professional or academic doctoral degree programs in such fields as public policy, public health, city and regional planning, consumer sciences, financial economics, and business school related programs. We will maintain and monitor a database of all our MAE students' careers-especially with regard to their placements and salaries.

We strive to maintain the scope of our curriculum, the quality of our instruction, and the quality of our exams at a level comparable to top master's level applied economics programs. Toward this goal, we will use all available information and metrics about our program performance so that we can adjust the structure and parameters of our program in order to make the program strengths match the students' needs. We list below the direct and indirect measures that we plan to use for our program assessment.

Joint MAE Program Development Plan

## DIRECT MEASURES

Classroom assignments

- Embedded testing
- Other classroom assessment methods


## Additional direct assessment tools and methods

- Rubrics


## INDIRECT MEASURES

Surveys and Interviews

- Student survey
- Alumni survey
- Student evaluation of instruction
- Student interviews or focus groups

Additional types of indirect evidence:

- Job or post-baccalaureate education placement
- Student or alumni honors/recognition achieved
- Peer review of program
- External review
- Curriculum or syllabus review
- Grade review
- Comparison or benchmarking

Use of Data:

- Meet with students directly to discuss their performance
- Analyze and discuss trends with the unit's faculty
- Make improvements in curricular requirements (e.g. add, subtract courses)
- Make improvements in course content
- Make improvements in course delivery and learning activities within courses
- Make improvements in learning facilities, laboratories, and/or equipment
- Periodically confirm that current curriculum and courses are facilitating student attainment of program goals
- Benchmark against best programs in the field
- Inform strategic planning
- Inform academic program review

Our colleges do not have a website dedicated to learning outcomes assessment.


[^0]:    - Revisions to MAE proposal in response to comments from the Graduate School Curriculum Committee (by Sheldon,lan Martio on 1203/2013 09:09 AM)
    - Returned for revision. Letter from Graduate School attached. (by Hemess, M Scott on 10/26/2013 01:37 PM)
    - Returning for revisions (by Pister, Jill Ann on 03/06:2013 11:19 AM)

[^1]:    ${ }^{1}$ This course will be upgraded to AED Econ 6250.
    ${ }^{2}$ This new course is currently under development, a proposal to be placed in process in due course.

[^2]:    ${ }^{3}$ Students in non-economics PhD programs at OSU can obtain our MA in Economics by satisfying all course requirements and by passing all required MA examinations. For example, most PhD students in AED Economics obtain our MA. Also, students in the Department of Finance, Department of Political Science, and Department of Industrial Engineering have also earned our MA in Economics. Interested PhD students should contact our Office of Graduate Studies (OGS), after obtaining their home department DGS's approval, for seeking our MA in Economics.

[^3]:    ${ }^{1}$ This course will be upgraded to AED Econ 6250.
    ${ }^{2}$ This new course is currently under development, a proposal to be placed in process in due course.

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