Graduate Student Learning Outcomes
Applied Economics Graduate Program (MS and PhD)

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1. Educational Goals and Outcomes

The Applied Economics Graduate Program at the University of Minnesota prepares students for careers that use economic theory and quantitative methods to understand and solve problems faced by business, government and society. Doctoral graduates will typically obtain jobs in academic institutions, research organizations, businesses or government agencies, using skills and knowledge to shape policy or business decisions. They may conduct research, teach, evaluate programs, develop policy, analyze data and/or manage organizations. Master’s students either pursue doctoral studies or find employment as an applied economist or data analyst in the public or private sector. Regardless of the setting, an essential skill is the ability to construct and communicate analytical arguments, economic concepts and quantitative information.

In addition to acquiring specific skills, a successful applied economist communicates effectively with non-economists as well as economists in both written and oral communications. Graduates of the program collaborate effectively with diverse individuals and, increasingly, with both interdisciplinary and multidisciplinary teams.

Doctoral graduates should have knowledge of at least one area of applied economics and will have made an original and significant contribution to the literature in that area. They should be able to design and implement a research program that addresses well-defined and important economic problems. Desired outcomes for doctoral students include:

- Proficiency in economic theory;
- Proficiency in applied econometrics;
- Specialized knowledge of economic literature in a field, including the ability to identify new research opportunities in the field;
- The ability to conceptualize and define economic aspects of a problem;
- Proficiency in designing and executing a research strategy;
- The ability to effectively communicate an economic argument both orally and in writing;
- A commitment to active citizenship in the discipline, including engagement in professional service to the profession and society at large;
- Commitment to the ethical conduct of research and professional activities.

While master’s students do not typically achieve the same depth and breadth of disciplinary knowledge as a doctoral student, desired outcomes for master’s students include:

- Proficiency in applying economic theory to analyze economic problems
- Proficiency in the use of quantitative methods and research design
- Proficiency in data management – desired, but not necessary
- Develop both written and oral communication skills to effectively communicate economic arguments and quantitative information to non-economists
- Demonstrated ability to make an original research contribution to the economics discipline
2. Assessment of Achievement of Student Goals and Outcomes

A doctoral student:

- Demonstrates mastery of economic theory by passing a written preliminary examination in microeconomics
- Provides evidence of knowledge of advanced quantitative methods by completing the applied econometrics core classes (APEC 8211 & APEC 8212) with grades of B or better
- Demonstrates knowledge of at least one specialized area (or field) by passing a written preliminary examination in an applied economics field
- Demonstrates the ability to conceptualize and define the economic aspects of a problem by passing the preliminary oral exam and thesis prospectus
- Exhibits proficiency in designing and executing a research strategy to answer significant questions having real-world applications by successful completion of a dissertation approved by the student’s final examining committee and passing the final oral exam
- Demonstrates the ability to effectively communicate an economic argument in writing by completing the second year paper and successful completion of a dissertation, and orally by passing the final oral exam

Developing and transforming students into scholars is supported by a series of seminar classes taken by AEGP students beginning in the first year of the graduate program. The first year seminar (for both MS and PhD students) familiarizes students with the research done by AEGP faculty and covers important topics such as choosing an advisor, selecting a research question, and writing a research proposal. In the second year, doctoral students undertake a significant research paper under the guidance of a paper supervisor and participate in a paper-writing seminar class. Measures of success of this mentoring process include successful completion of second year papers by doctoral students and research papers by master’s students. Presentation of research by students in seminars and at regional and national conferences provides professional experience in communicating their research, and provides feedback to the program on its success in creating scholars. Active participation of students in departmental research seminars and on departmental committees provides evidence of student engagement in the intellectual community and creates opportunities for students to contribute as peers.

A master’s student:

- Demonstrates advanced understanding and proficiency in applying economic theory by passing the core M.S. course APEC 5151 (or APEC/ECON 8001 and 8002, or ECON 8101 and 8102) and APEC 5152 (or ECON 8201 and 8202) with a grade of B or better
- Demonstrates acquisition of quantitative methods by passing APEC 5031 with a grade of B or better
- Demonstrates acquisition of data management skills by passing APEC 5032 with a grade of B or better
- Provides evidence of acquiring critical thinking skills by passing the core M.S. courses and writing a successful Plan A or Plan B paper
- Exhibits effective written and oral communication skills by writing a Plan A or Plan B paper and successfully defending it before her or his examining committee
- Makes an original research contribution to the economics discipline by writing a Plan A paper, and often, by writing a Plan B paper
3. Reporting outcomes

Initially, the AEGP will use the following measures of student learning performance. These measures will almost certainly evolve over time, as the Graduate Committee thinks more about performance measurement.

For doctoral students, measures of student learning performance are:

- the share of students in an incoming cohort who pass the micro-preliminary exam (mastery of economic theory) – the higher the share / time ratio, the better
- the share of students in an incoming cohort who pass the required econometrics classes with a B or better – higher average grades will suggest a greater degree of mastery of course material (acquired knowledge of advanced quantitative methods)
- the share of students in an incoming cohort who pass a field exam (mastery of at least one specialized area is) – the higher the share / time ratio for a cohort, the better
- the share of a student cohort that passes the preliminary oral exam and thesis prospectus (the ability to conceptualize and define the economic aspects of a problem) – the higher the share / time ratio for a cohort, the better
- the share of a student cohort that successfully defends their dissertation (proficiency in designing and executing a research strategy) – the higher the share / time ratio for a cohort, the better

4. Long term plans for comprehensive reviews and updates

- The DGS will initiate a review of graduate student learning outcomes at least once every three years. If the Graduate Committee and faculty deem appropriate, they will introduce new, or adjust existing AEGP learning objectives, and document those changes in this graduate student learning objective document.
- The DGS and staff will produce an annual report of current and past SLO measures. The components and structure of this report will be determined by the AEGP Graduate Committee.
- The DGS, in conjunction with the graduate committee, will look for ways to capture performance measures from the graduate students’ annual reviews.