APPLIED ECONOMICS, M.A.

The M.A. in Applied Economics is designed for students who seek careers in business, finance, or government as economists, forecasters, policy analysts, economic researchers, or managers with strong quantitative skills. The program is structured to develop the theoretical, quantitative, and statistical skills that are required to perform and interpret economic analyses on a wide range of policy-oriented issues. Excellent training is also provided for students who wish to enter the Ph.D. program at UNC Greensboro or to pursue additional graduate education at other institutions.

Course work for the 30 credit-hour degree combines core knowledge of economic theory and econometrics, specialized applied research methods, advanced electives, and a capstone seminar focused on the development of applied empirical research skills based on the integration of microeconomic theory and econometrics.

Students pursuing the M.A. in Applied Economics may select an optional concentration in Data Analytics. Course work must be approved by the Graduate Program Director and must include certain courses as explained in the discussion of the concentration.

Student Learning Outcomes

- Microeconomic Theory
  - Students will apply microeconomic theory to the analysis of economics issues.
- Macroeconomic Theory
  - Students will apply macroeconomic theory to the analysis of economics issues.
- Econometrics
  - Students will apply econometric procedures in the empirical analysis of economic issues.
- Prepare Data for Economic Analysis
  - Manage, clean, and use data sets to construct descriptive, graphical, and statistical representations of economic phenomena.
- Diagnose and identify data issues.

For information regarding deadlines and requirements for admission, please see the Guide to Graduate Admissions (https://grs.uncg.edu/prospective/guide/).

Admission to the program requires a completed baccalaureate degree with an earned cumulative GPA of 3.0 or higher OR acceptable scores in the GRE or GMAT standardized tests OR the completion of one or more economics post-baccalaureate certificates awarded from UNC Greensboro.

Degree Program Requirements

Required: 30 credit hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 641/701</td>
<td>Microeconomics I ¹</td>
<td>4</td>
</tr>
<tr>
<td>ECO 643/705</td>
<td>Econometric Methods ¹</td>
<td>4</td>
</tr>
<tr>
<td>ECO 646/702</td>
<td>Macroeconomics ¹</td>
<td>4</td>
</tr>
<tr>
<td>ECO 625</td>
<td>Data Methods in Economics</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives (12 credits)

Select four courses (12 credits) from the following:

- ECO 630/730 Introduction to Cost Effectiveness
- ECO 637/737 Empirical Health Economics
- ECO 642 Microeconomics II ³
- ECO 644 Econometric Theory ³
- ECO 657 Managerial Economics
- ECO 663 Predictive Data Mining
- ECO 664 Time Series and Forecasting
- ECO 691 Economics Internship
- ECO 741 Advanced Mathematical Economics ³
- ECO 745 Advanced Econometric Theory ³

Capstone Experience Requirement

Complete an e-Portfolio of significant assignments and final projects.

Total Credit Hours: 30

¹ ECO 701, ECO 702, ECO 705, and ECO 731 are reserved for students admitted to the M.A. Doctoral Track (M.A./Ph.D.). Registration in these courses must be approved by the Director of Graduate Studies.

² Electives may be earned with 600- or 700-level economics courses or with graduate courses taken outside the department. Electives not listed above must be approved by the Director of Graduate Studies.

³ Electives acceptable for the M.A. Doctoral Track. Doctoral Track elective courses are reserved for students admitted to the M.A. Doctoral Track (M.A./Ph.D.). Registration in these courses must be approved by the Director of Graduate Studies.

e-Portfolio

As a requirement for graduation, each student must successfully complete an e-Portfolio of significant assignments and final projects. The e-Portfolio demonstrates a student’s cumulative program knowledge and fulfills the capstone requirement of the program. This body of work can be shared with prospective employers to help students distinguish themselves in the job market. Students must receive approval of their e-Portfolio from the Director of Graduate Studies in order to meet the graduation requirement.

A student may apply course work from a certificate program toward a graduate degree at UNC Greensboro with the approval of the department offering the degree and The Graduate School.

Data Analytics Concentration

The Data Analytics concentration combines the M.A. core knowledge and advanced theory with courses emphasizing the combination of skills, technologies, applications, and processes used by organizations to perform advanced data analysis. The concentration is chosen in consultation with the Graduate Program Director.

Required: 30 credit hours

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<thead>
<tr>
<th>Code</th>
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</thead>
<tbody>
<tr>
<td>ECO 625</td>
<td>Data Methods in Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 631/731</td>
<td>Applied Policy Methods</td>
<td>3</td>
</tr>
<tr>
<td>ECO 641/701</td>
<td>Microeconomics I</td>
<td>4</td>
</tr>
<tr>
<td>ECO 643/705</td>
<td>Econometric Methods</td>
<td>4</td>
</tr>
</tbody>
</table>

Core Knowledge Requirement (18 credits)

- ECO 625 Data Methods in Economics
- ECO 631/731 Applied Policy Methods
- ECO 641/701 Microeconomics I
- ECO 643/705 Econometric Methods
Courses in the M.A. in Applied Economics curriculum:

Program Petition, and must be chosen from among the following required
Graduate Program Director, must be specified on the Graduate Degree
take within the Accelerated Master’s Program must be approved by the
fulfill graduate-level requirements. The graduate courses the student will
provided that they earn a grade of B (3.0) or better in the course and
toward completion of both the undergraduate and graduate degree,
Applicants must submit the Accelerated Bachelor’s to Graduate Degree
for admission to the AMP before the first semester of the junior year. All
3.5 based on at least 30 credits earned at UNC Greensboro is required.
Admitted students may apply 12 credits of graduate-level course work
admission to the Accelerated Master’s Program (AMP) and the M.A. in
Qualiﬁed UNC Greensboro undergraduate students may apply for
Application and Admission
Qualiﬁed UNC Greensboro undergraduate students may apply for
admission to the Accelerated Master’s Program (AMP) and the M.A. in
Applied Economics program. A cumulative undergraduate GPA of at least
3.5 based on at least 30 credits earned at UNC Greensboro is required.
Applicants must have completed at least 60 credits and may not apply
for admission to the AMP before the ﬁrst semester of the junior year. All
applicants must submit the Accelerated Bachelor’s to Graduate Degree
Program Petition to the Graduate School and must simultaneously apply
for admission to the M.A. in Applied Economics (form is located within
the online application to the M.A. in Applied Economics program).

Courses
Admitted students may apply 12 credits of graduate-level course work
toward completion of both the undergraduate and graduate degree,
provided that they earn a grade of B (3.0) or better in the course and
fulﬁll graduate-level requirements. The graduate courses the student will
take within the Accelerated Master’s Program must be approved by the
Graduate Program Director, must be speciﬁed on the Graduate Degree
Program Petition, and must be chosen from among the following required
courses in the M.A. in Applied Economics curriculum:

<table>
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<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>ECO 625</td>
<td>Data Methods in Economics</td>
<td>3</td>
</tr>
<tr>
<td>Select three courses (9 credits) from the following:</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

Graduate courses counted for the Accelerated Master’s Program should
be selected in consultation with the Graduate Program Director. Please
consult with an undergraduate adviser to determine how the courses
taken at the graduate level will meet requirements in the bachelor’s
degree program. All degree requirements for the M.A. in Applied
Economics remain the same.

M.A. in Applied Economics Doctoral Track Overview
The M.A. in Applied Economics Doctoral Track is offered to superior
applicants who have completed a baccalaureate degree and who seek
careers in academic departments that focus on public policy and applied
microeconomics, in nonacademic research organizations, in business
and ﬁnancial institutions, and in agencies of federal, state and local
governments. The program is structured to develop the theoretical,
quantitative, and statistical skills that are required to perform and
interpret economic analyses on a wide range of policy-oriented issues.
The Doctoral Track program is speciﬁcally designed to train students in
the ﬁelds of labor, health, and public economics (including the economics
of education, science and technology policy, urban economics, and
resource and environmental economics).

The Doctoral Track requires 69 credit hours to complete and results in
students earning both an M.A. and a Ph.D.

Application and Admission
Admission to the program requires a completed baccalaureate
degree and completion of undergraduate courses in Intermediate
Microeconomics (ECO 301 Intermediate Microeconomic Theory at UNC
Greensboro), Intermediate Macroeconomics (ECO 302 Intermediate
Macroeconomic Theory at UNC Greensboro), Mathematical Economics
(ECO 319 Quantitative Analysis at UNC Greensboro), and Economics and
Business Statistics II (ECO 350 Economic and Business Statistics II at
UNC Greensboro). Equivalent course work in mathematics and statistics
may substitute for the latter two.

For information regarding deadlines and requirements for admission,
please see the Guide to Graduate Admissions (https://grs.uncg.edu/
prospective/guide/).

Degree Program Requirements
Required: 69 credit hours

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</tr>
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<td>ECO 701/641</td>
<td>Microeconomics I</td>
<td>4</td>
</tr>
<tr>
<td>ECO 702/646</td>
<td>Macroeconomics</td>
<td>4</td>
</tr>
<tr>
<td>ECO 705/643</td>
<td>Econometrics Methods</td>
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</tr>
<tr>
<td>ECO 731/631</td>
<td>Applied Policy Methods</td>
<td>3</td>
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</tbody>
</table>

Eco 646/702  Macroeconomics  4
**Concentration Requirements (9 credits)**
ECO 644  Econometric Theory  3
ECO 663  Predictive Data Mining  3
ECO 664  Time Series and Forecasting  3

**Elective (3 credits)**
Choose one course (3 credits) from the following:  3
ECO 630/730  Introduction to Cost Effectiveness
ECO 637/737  Empirical Health Economics
ECO 642  Microeconomics II
ECO 691  Economics Internship
ECO 741  Advanced Mathematical Economics
ECO 745  Advanced Econometric Theory
MBA 703  Managerial Economics

**Capstone Experience Requirement**
Complete an e-Portfolio of signiﬁcant assignments and ﬁnal projects

**Total Credit Hours**  30

**e-Portfolio**
As a requirement for graduation, each student must successfully
complete an e-Portfolio of signiﬁcant assignments and ﬁnal projects.
The e-Portfolio demonstrates a student’s cumulative program knowledge
and fulﬁlls the capstone requirement of the program. This body of work
can be shared with prospective employers to help students distinguish
themselves in the job market. Students must receive approval of their
e-Portfolio from the Graduate Program Director in order to meet the
graduation requirement.

**Accelerated B.A. or B.S. to M.A. in Applied Economics**

**Application and Admission**
Qualified UNC Greensboro undergraduate students may apply for
admission to the Accelerated Master’s Program (AMP) and the M.A. in
Applied Economics program. A cumulative undergraduate GPA of at least
3.5 based on at least 30 credits earned at UNC Greensboro is required.

Applicants must have completed at least 60 credits and may not apply
for admission to the AMP before the ﬁrst semester of the junior year. All
applicants must submit the Accelerated Bachelor’s to Graduate Degree
Program Petition to the Graduate School and must simultaneously apply
for admission to the M.A. in Applied Economics (form is located within
the online application to the M.A. in Applied Economics program).

**Courses**

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<td>Econometrics Methods</td>
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</tr>
<tr>
<td>ECO 731/631</td>
<td>Applied Policy Methods</td>
<td>3</td>
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</tbody>
</table>
The preliminary written and oral examination takes place after submission of the dissertation proposal and is expected to occur by the end of the semester in which the student completes the ECO 798 requirement.

Before registering for dissertation credit (ECO 799 Dissertation), Ph.D. students must be admitted to candidacy by The Graduate School. To make formal application for admission to candidacy, student must have completed all major required courses, have passed their qualifying examinations, have submitted a dissertation proposal that has been approved by their advisory/dissertation committee, and have passed their preliminary written and oral examination.

After being admitted to candidacy for the doctoral degree, the candidate must prepare and present a dissertation that reflects an independent investigation of an economic topic that is acceptable in form and content to the students advisory/dissertation committee and The Graduate School.

Ph.D. Required Milestones*

- **Residency (Immersion)** – Doctoral students are expected to satisfy a residence requirement, which provides them the opportunity for an extended period of intensive study and intellectual and professional development among a community of scholars. The basic requirement is two consecutive semesters (minimum of 6 hours per semester) of graduate coursework (excluding independent study and dissertation hours) on the Greensboro campus after admission to a doctoral program. University requirements aside, a critical aspect of the graduate experience is participation in events beyond the coursework requirements. Graduate students are expected to attend professional conferences, seminars, lectures, and Brown Bags, and participate in professional development activities sponsored by the Department, the Bryan School, or the Graduate School. Economics graduate students are highly encouraged to present and/or publish their research.

- **Qualifying Exams** – In addition to the course requirements, doctoral students must pass two Ph.D. qualifying examinations. These examinations take place typically after the first year of doctoral studies following the completion of the advanced theory coursework and will focus on a student’s comprehensive knowledge in the areas of economic theory and econometrics, respectively. Students are required to pass both examinations in order to retain placement in the doctoral program. Students who do not pass either or both examination(s) may retake the failed examination(s) one time.

- **Advisory/Dissertation Committee** – Students must form an Advisory/Dissertation Committee before the end of their first year. The committee (minimum of three members) must be formalized with the Graduate School. The Committee Chair will serve as your primary advisor and mentor throughout your dissertation.

- **Research Competency** – Work on the dissertation proposal takes place in supervised research seminars under the guidance and supervision of the student’s Advisory/Dissertation Committee: ECO 797 Seminar in Empirical Economics and ECO 798 Seminar in Economic Research. The preliminary written and oral examination takes place after submission of the dissertation proposal and is expected to occur by the end of the semester in which the student completes the ECO 798 requirement.

- **Plan of Study** – The Graduate School requires you to file a plan of study outlining all the courses you will take or have taken to meet the requirements of your graduate degree. Graduate students are expected to file a preliminary plan of study with The Graduate School no later than the semester in which they complete 18 hours of

### Master’s Doctoral Track Electives (12 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ECO 642</td>
<td>Microeconomics II 3</td>
</tr>
<tr>
<td>ECO 644</td>
<td>Econometric Theory 3</td>
</tr>
<tr>
<td>ECO 741</td>
<td>Advanced Mathematical Economics 3</td>
</tr>
<tr>
<td>ECO 745</td>
<td>Advanced Econometric Theory 3</td>
</tr>
</tbody>
</table>

### Master’s Doctoral Track Capstone Experience Requirement

Complete an e-Portfolio of significant assignments and final projects

### Doctoral Advanced Theory Requirement (6 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ECO 742</td>
<td>Advanced Microeconomic Theory 3</td>
</tr>
<tr>
<td>ECO 746</td>
<td>Advanced Econometric Theory II 3</td>
</tr>
</tbody>
</table>

### Doctoral Empirical Field Courses (9 credits)

Choose at least three courses (9 credits) from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 730</td>
<td>Introduction to Cost Effectiveness</td>
</tr>
<tr>
<td>ECO 734</td>
<td>Public Policies Toward Innovation</td>
</tr>
<tr>
<td>ECO 735</td>
<td>Labor Economics</td>
</tr>
<tr>
<td>ECO 736</td>
<td>Public Economics</td>
</tr>
<tr>
<td>ECO 737</td>
<td>Empirical Health Economics</td>
</tr>
<tr>
<td>ECO 738</td>
<td>Topics in Economics</td>
</tr>
<tr>
<td>ECO 739</td>
<td>Independent Field Course</td>
</tr>
</tbody>
</table>

### Supervised Independent Field Research (12 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 797</td>
<td>Seminar in Empirical Economics 6</td>
</tr>
<tr>
<td>ECO 798</td>
<td>Seminar in Economic Research 6</td>
</tr>
</tbody>
</table>

### Dissertation Research (12 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 799</td>
<td>Dissertation 12</td>
</tr>
</tbody>
</table>

Total Credit Hours: 69

* Courses may be counted towards both the master’s and doctoral program requirements.
graduate study. This preliminary plan is completed by the student in consultation with the Director of Graduate Study and must be approved by the student’s dissertation committee chair and members.

- **Written Dissertation Proposal & Written Part of the Comprehensive Examination** – The student will prepare a written Dissertation Proposal and submit that written proposal to their dissertation committee. Following that submission, the written part of the Comprehensive Examination is scheduled and prepared by the dissertation advisor with the assistance of the dissertation committee. Questions may cover any aspect of the coursework taken by the student during the period of this graduate study or any subject logically related and basic to an understanding of the subject matter of the major area of study. Any transferred coursework is subject to examination at the time of the preliminary examination.

- **Oral Part of the Comprehensive Examination & Oral Presentation of the Dissertation Proposal** – The oral part of the Comprehensive Examination should be scheduled within one month following the written part of the Comprehensive Examination, and the entire dissertation committee must participate. The oral part of the comprehensive Examination will consist of an oral presentation of the dissertation proposal and a discussion in which the student responds to questions posed by the dissertation committee and which occurs after the oral presentation of the dissertation proposal. The content of these questions is at the discretion of the dissertation committee.

- **Assessment** – After the oral part of the Comprehensive Examination has concluded, the dissertation committee meets privately to evaluate the dissertation proposal, the written part of the Comprehensive Examination, and the oral part of the Comprehensive Examination. The committee then decides whether the student has passed without conditions, passed conditionally, or failed the preliminary examination. The student is then informed of the result.

- **Admission to Candidacy** – A minimum of 12 credits will be devoted to research that culminates in the preparation of the required doctoral dissertation.

Before registering for dissertation credit (ECO 799 Dissertation), Ph.D. students should be admitted to candidacy by The Graduate School. To make formal application for admission to candidacy, the student must have completed all major required courses, have passed their qualifying examinations, have submitted a dissertation proposal that has been approved by their advisory/dissertation committee, and have passed both the written and oral parts of their Comprehensive Examination.

After being admitted to candidacy for the doctoral degree, the candidate must prepare and present a dissertation that reflects an independent investigation of an economic topic that is acceptable in form and content to the students Advisory/Dissertation Committee and The Graduate School.

- **Dissertation Defense** – Doctoral candidates will successfully pass an oral examination of their independent dissertation study to members of their doctoral committee. In accordance with Graduate School policy, the defense must be formally scheduled with the Graduate School at least two weeks in advance. The defense is open to all members of the University community who may wish to attend, as required by state laws on public meetings. However, the deliberations of the Dissertation Committee are private.

- **Filing the Final Approved Dissertation** – The Graduate School requires Electronic Thesis/Dissertation submission. The dissertation must be filed in compliance with Graduate School policies and guidelines for acceptable formatting and deadlines. The Graduate School dissertation templates should be used to mitigate errors or delays.

- **Job Market Paper** – Along with the process of preparing and defending a dissertation, graduating Ph.D. students are expected as an integral part of the dissertation process to prepare a job market paper in preparation for job interviews, held at the ASSA Annual Meeting in early January. Doctoral students planning to participate in the market are expected to have a completed market-ready paper and presentation prepared no later than September of the preceding year.