

# APPLIED ECONOMICS, MASTER OF SCIENCE

## MS in Applied Economics (<https://advanced.jhu.edu/academics/graduate/ms-applied-economics/>)

Economic analysis is no longer relegated to academicians and a small number of PhD-trained specialists. Instead, economics has become an increasingly ubiquitous and rapidly changing line of inquiry that requires people with the specialized skills to analyze and interpret economic data, and the ability to make decisions about national and global markets and policy. Such skills are a vital part of everything from health care to fiscal policy, from foreign aid to the environment, and from financial risk to real risk.

The Master of Science in Applied Economics program develops skills in economic reasoning and in constructing and estimating economic models through the use of econometrics and other quantitative techniques. This is accomplished by a rigorous and demanding curriculum and a talented and dedicated staff of instructors. The program comprises 10 courses, with classes offered at JHU AAP's Washington, D.C., facility and online.

## Admissions Criteria for all Advanced Academic Programs (<https://e-catalogue.jhu.edu/arts-sciences/advanced-academic-programs/enrollment-services/admission/>)

### Program-Specific Requirements

In addition to the materials and credentials required for all programs, the Master of Science in Applied Economics program also requires:

- **Resume**
- **Statement of purpose**
- **Two letters of recommendation**
- **Program-specific prerequisite courses:**
  - One semester of introductory microeconomics, passed with at least a B
  - One semester of introductory macroeconomics, passed with at least a B
  - One semester of undergraduate statistics, passed with at least a B
  - One undergraduate course that covers multivariate calculus, passed with at least a B

## Program Requirements

Ten courses are required to complete the Master of Science in Applied Economics program: three core required courses, one core customizable course, and six additional elective courses.

| Code                            | Title | Credits |
|---------------------------------|-------|---------|
| <b>Core Courses - Required:</b> |       |         |
| All three courses are required  |       | 9       |

|                                     |  |           |
|-------------------------------------|--|-----------|
| AS.440.601                          | Microeconomic Theory                                 |           |
| AS.440.602                          | Macroeconomic Theory                                 |           |
| AS.440.606                          | Econometrics   |           |
| <b>Core Courses - Customizable:</b> |  |           |
| Select one of the following:        |  | 3         |
| AS.440.614                          | Macroeconometrics [Time-Series Analysis]             |           |
| AS.440.615                          | Macroeconomic Forecasting [Time Series Analysis]     |           |
| AS.440.617                          | Financial Econometrics [Time-Series Analysis]        |           |
| AS.440.618                          | Microeconometrics [Cross-Section and Panel Analysis] |           |
| <b>Electives</b>                    |  |           |
| Select six of the following:        |  | 18        |
| AS.440.614                          | Macroeconometrics [Time-Series Analysis]             |           |
| AS.440.615                          | Macroeconomic Forecasting [Time Series Analysis]     |           |
| AS.440.616                          | Bayesian Econometrics                                |           |
| AS.440.617                          | Financial Econometrics [Time-Series Analysis]        |           |
| AS.440.618                          | Microeconometrics [Cross-Section and Panel Analysis] |           |
| AS.440.622                          | Cost-Benefit Analysis                                |           |
| AS.440.624                          | Computable General Equilibrium Modeling              |           |
| AS.440.625                          | Machine Learning in Statistics                       |           |
| AS.440.629                          | Survey Research Methods                              |           |
| AS.440.630                          | Monetary Economics                                   |           |
| AS.440.631                          | Finance and the Macroeconomy                         |           |
| AS.440.632                          | Topics in Macroeconomics and Finance                 |           |
| AS.440.634                          | Economic Growth                                      |           |
| AS.440.639                          | International Finance (Open Economy Macro)           |           |
| AS.440.640                          | Financial Economics                                  |           |
| AS.440.641                          | Financial Intermediation & Financial Markets         |           |
| AS.440.643                          | Economics of Investments and Financial Management    |           |
| AS.440.645                          | Behavioral Economics & Finance                       |           |
| AS.440.646                          | Economics of Derivatives                             |           |
| AS.440.650                          | Environmental & Resource Economics                   |           |
| AS.440.653                          | Economics of the Labor Market                        |           |
| AS.440.656                          | Political Economy                                    |           |
| AS.440.658                          | Industrial Organization                              |           |
| AS.440.659                          | Law and Economics                                    |           |
| AS.440.661                          | Public Economics                                     |           |
| AS.440.663                          | Development Microeconomics                           |           |
| AS.440.665                          | International Trade (Open Economy Micro)             |           |
| AS.440.666                          | Regional Economics                                   |           |
| AS.440.667                          | Urban Economics                                      |           |
| AS.440.672                          | Economics of Health Care                             |           |
| AS.440.684                          | Game Theory  |           |
| <b>Total Credits</b>                |  | <b>30</b> |

## Concentration in Financial Economics

Students may choose to declare a formal concentration in Financial Economics as part of their MS in Applied Economics degree program.

Successful completion of the requirements outlined below will allow this concentration to be noted on the student's transcript.

| Code   | Title  | Credits |
|--|--|---------|
| <b>Core Courses - Required:</b>  |  |         |
| All five courses are required  |  | 15      |
| AS.440.601   | Microeconomic Theory                                 |         |
| AS.440.602   | Macroeconomic Theory                                 |         |
| AS.440.605   | Statistics   |         |
| AS.440.606   | Econometrics   |         |
| AS.440.640   | Financial Economics                                  |         |
| <b>Core Courses - Customizable:</b>  |  |         |
| Select one of the following:   |  | 3       |
| AS.440.614   | Macroeconometrics [Time-Series Analysis]             |         |
| AS.440.615   | Macroeconomic Forecasting [Time Series Analysis]     |         |
| AS.440.617   | Financial Econometrics [Time-Series Analysis]        |         |
| <b>Electives</b>   |  |         |
| Select four of the following:  |  | 12      |
| <i>Financial Economics Electives</i>   |  |         |
| Select between two and four courses to fulfill this requirement.   |  |         |
| *If you chose "Financial Econometrics" as your Advanced Time-Series Econometrics Course, you may not double-count "Financial Econometrics" as one of your elective courses, but need only select between one and four courses to fulfill this requirement. |  |         |
| AS.440.617   | Financial Econometrics [Time-Series Analysis]        |         |
| AS.440.641   | Financial Intermediation & Financial Markets         |         |
| AS.440.643   | Economics of Investments and Financial Management    |         |
| AS.440.645   | Behavioral Economics & Finance                       |         |
| AS.440.646   | Economics of Derivatives                             |         |
| <i>Complementary Macro and Quantitative Electives</i>  |  |         |
| Choose no more than two of these courses to satisfy this concentration's requirements. Please note, you may not double-count your selected Advanced Time-Series Econometrics Course as one of your elective courses.                                       |  |         |
| *If you chose "Financial Econometrics" as your Advanced Time-Series Econometrics Course, you may choose up to three courses to satisfy this concentration's requirements.  |  |         |
| AS.440.614   | Macroeconometrics [Time-Series Analysis]             |         |
| AS.440.615   | Macroeconomic Forecasting [Time Series Analysis]     |         |
| AS.440.616   | Bayesian Econometrics                                |         |
| AS.440.618   | Microeconometrics [Cross-Section and Panel Analysis] |         |
| AS.440.625   | Machine Learning in Statistics                       |         |
| AS.440.630   | Monetary Economics                                   |         |
| AS.440.631   | Finance and the Macroeconomy                         |         |
| AS.440.632   | Topics in Macroeconomics and Finance                 |         |
| AS.440.634   | Economic Growth                                      |         |
| AS.440.639   | International Finance (Open Economy Macro)           |         |
| AS.440.653   | Economics of the Labor Market                        |         |
| <i>Other Electives</i>   |  |         |
| Choose no more than one of these courses to satisfy this concentration's requirements.   |  |         |

|                      |  |
|----------------------|--|
| AS.440.622           | Cost-Benefit Analysis                    |
| AS.440.624           | Computable General Equilibrium Modeling  |
| AS.440.629           | Survey Research Methods                  |
| AS.440.650           | Environmental & Resource Economics       |
| AS.440.656           | Political Economy                        |
| AS.440.658           | Industrial Organization                  |
| AS.440.659           | Law and Economics                        |
| AS.440.661           | Public Economics                         |
| AS.440.663           | Development Microeconomics               |
| AS.440.665           | International Trade (Open Economy Micro) |
| AS.440.666           | Regional Economics                       |
| AS.440.667           | Urban Economics                          |
| AS.440.672           | Economics of Health Care                 |
| AS.440.684           | Game Theory                              |
| <b>Total Credits</b> | <b>30</b>                                |

## Optional Thesis (AS.440.692)

Students may undertake their own research project as an 11th program course for three additional credits at full tuition. Prior to proposing a project, interested students must clearly identify a research topic and submit a formal proposal for review and approval to the Thesis Research Committee, to be received no later than two months prior to the beginning of the term in which the student plans to enroll in the course. The proposal must follow the Applied Economics Thesis Guidelines, which can be obtained by contacting the program director.

The committee will help identify a mentor who is familiar with the student's prospective inquiry and is willing to provide guidance and oversee the project. The mentor must be faculty teaching at the Johns Hopkins University, but the availability of a mentor cannot be guaranteed. Students must meet with the mentor periodically for discussion of the project's progress, onsite or online, and must complete a research paper, to be approved by the mentor and the committee.

Enrollment of the student is undertaken by the program director.

Prerequisites: All four core courses and Microeconometrics or Macroeconometrics, and one or more Applied Economics courses in the substantive area of the proposed research, plus a strong academic record (at least B+ average) in at least eight program courses.