Economics

Degrees Offered

- Master of Arts
- Doctor of Philosophy

The master of arts and doctor of philosophy degrees in economics enable students to broaden and refine their knowledge of the concepts and methods of economic analysis. These programs are designed to prepare students for careers in higher education, government, and business. Student programs are planned with the assistance of a faculty advisor and approval of the director of graduate programs. Additional information about the graduate programs in economics and the regulations and requirements pertaining to them is available at http://www.be.wvu.edu/phd_economics/index.htm. Students are bound by these regulations and requirements, as well as those of the College of Business and Economics.

Prerequisites

Applicants with a bachelor’s degree may apply directly to the Ph.D. program. To be admitted as a regular M.A. or Ph.D. student, applicants must have a grade point average of 3.0 or better for all undergraduate work completed. Applicants must also complete the general aptitude portion of the Graduate Record Examination (GRE) and receive a minimum combined score of 1,000 for the verbal and quantitative sections and a minimum score of 3.0 for the analytical writing section. International students must submit their scores on the Test of English as a Foreign Language (TOEFL) or, alternatively, the scores on the International English Language Testing System (IELTS). In addition, applicants must have completed at least one semester of each of the following courses: intermediate microeconomic theory, intermediate macro-economic theory, calculus, and statistics. Applicants not meeting these entrance requirements may be admitted on a provisional and/or deficiency basis, subject to certain performance conditions during their first semester in residence.

Assistantships

A limited number of graduate assistantships and tuition scholarships are available on a competitive basis to full-time Ph.D. students. Major selection criteria include prior academic performance and GRE scores. Graduate assistants receive a cash stipend that is comparable in amount to that offered at other universities. Graduate assistants engage in research and/or teaching activities. The faculty of the Department of Economics also nominates outstanding applicants for university fellowships. Special scholarships are available on a competitive basis to minority students. For further information, see http://www.be.wvu.edu/phd_economics/prospective.htm.

Academic Standards

To qualify for a graduate degree in economics, students must earn a cumulative grade point average (GPA) of 3.0 or better for all courses completed as a graduate student at WVU. A regular graduate student in economics whose cumulative GPA falls below 3.0 (B) upon completion of the first nine hours of graduate study is not in good-standing and will be placed on probation at the end of the semester in which the GPA fell below 3.0. Such a student, placed on probation, who fails to raise his or her cumulative GPA to 3.0 by the end of the semester succeeding that in which his or her GPA fell below 3.0 is subject to suspension from the program at the end of that probationary semester.

Other academic reasons for suspension from the program include failing grades on more than fifty percent of the coursework taken in any semester, a third failure on either a micro-economic theory or macroeconomic theory comprehensive examination, a fourth failure on comprehensive field examinations, or failure to complete all degree requirements within the specified time limits.

Comprehensive Examinations

Students must pass written comprehensive examinations in microeconomic theory, in macroeconomic theory, and in two fields. For detailed rules, see http://www.be.wvu.edu/phd_economics/rulesregulations.htm.

Candidacy and Dissertation

When an applicant has passed the written comprehensive examinations, the applicant will be formally promoted to candidacy for the Ph.D. degree. The candidate must submit a dissertation pursued under the supervision of a member of the graduate faculty in economics on some problem in the area of the candidate’s major interest. The dissertation must present the results of the candidate’s individual investigation and must embody a definite contribution to knowledge. It must be approved by a committee of the graduate faculty in economics. After approval of the candidate’s dissertation and satisfactory completion of other graduate requirements, a final oral examination on the dissertation is required.

Each Ph.D. candidate is required to present a dissertation proposal to the graduate director after approval by at least three members of his or her dissertation committee including the chairperson. This proposal will include a statement of the problem (topic summary), a preliminary survey of the literature, a description of the research methodology, and other pertinent material. With the approval of the graduate director, the student is then required to present the proposal in a faculty-student seminar. Credit for dissertation research and writing is available under ECON 797, but only if the student has a dissertation chairperson and an approved topic.
FACULTY

CHAIR
• Clifford Hawley - Ph.D. (Duke University)
  Professor of Economics

PROFESSORS
• Roger Congleton - Ph.D. (Virginia Polytechnic Institute and State University)
  Public Choice
• William S. Reece - Ph.D. (Washington University, St. Louis)
  Public Economics

ASSOCIATE PROFESSORS
• Arabinda Basistha - Ph.D. (University of Washington, Seattle)
  Monetary
• Brian J. Cushing - Ph.D. (University of Maryland)
  Urban and Regional Economics, Econometrics, Public Finance
• John Deskins - Ph.D. (University of Tennessee)
  Director Bureau of Business and Economics Research
• Stratford M. Douglas - Ph.D. (University of North Carolina)
  Econometrics, Industrial Organization, Corporate Finance
• Donald Lacombe - Ph.D. (Florida State University)
• Joshua Hall - Ph.D. (West Virginia University)
  Applied Microeconomics
• Brad Humphreys - Ph.D. (Johns Hopkins University)
  Sports Economics & Economics of Gambling
• Shuichiro Nishioka - Ph.D. (University of Colorado at Boulder)
  International Trade & Economic Development
• Jane Ruseski - Ph.D. (Johns Hopkins University)
  Associate Director Bureau of Business & Economic Research
• Andrew Young - Ph.D. (Emory University)

ADJUNCT PROFESSORS
• Pedro Bento - Ph.D. (University of Toronto)
  Macroeconomics
• Adam Nowak - Ph.D. (Arizona State University)
• Eric Olson - Ph.D. (University of Alabama)
  Macroeconomics, Monetary Policy & Financial Economics
• Amanda Ross - Ph.D. (Syracuse University)
  Urban Economics, Public Finance, Real Estate Economics
• Feng Yao - Ph.D. (Oregon State University)
  Econometrics
• Dongwoo Yoo - Ph.D. (Ohio State University)

Master of Arts Program
The master of arts program requires a total of thirty-seven hours of graduate credit, including twenty-two hours of economics. At least twenty-five hours of coursework completed must be at the 700-level. To qualify for the M.A. degree, graduate students in economics must earn a grade of B or better in ECON 701 and ECON 702 and maintain a grade point average of 3.0 in all courses attempted as a graduate student at WVU. The M.A. program has a thesis and a non-thesis option. Specific course requirements include the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ECON 701</td>
<td>Adv Micro-Economic Theory 1</td>
<td>4</td>
</tr>
<tr>
<td>ECON 702</td>
<td>Adv Macro-Economic Theory 1</td>
<td>3</td>
</tr>
<tr>
<td>ECON 721</td>
<td>Mathematical Economics</td>
<td>3</td>
</tr>
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</table>

Statistics Requirement
Or for students who are considering going into the Ph.D. program, these two courses may be replaced by:

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<tbody>
<tr>
<td>ECON 725</td>
<td>Econometrics 1</td>
<td>3</td>
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The student must also select either the thesis or the non-thesis alternative:

- Thesis alternative: an acceptable thesis for six hours is required, and the student must pass a final oral examination.
- Non-thesis alternative: in lieu of a thesis, the requirements for the M.A. are met by completion of two 700-level courses in one field of concentration in economics and submission of a research paper that gives evidence of substantial ability to conduct scholarly research.

**Doctor of Philosophy**

At least four years of full-time graduate work beyond the baccalaureate degree are usually required to complete the doctorate. A minimum of two consecutive semesters in actual residence as a full-time graduate student is required. To qualify for the doctor of philosophy degree in economics, a student must earn a cumulative grade point average of 3.0 in courses completed as a graduate student at WVU.

The Ph.D. degree is not awarded for the mere accumulation of course credits nor for the completion of the specified residence requirements. All students are required to complete the graduate core curriculum, prepare themselves in two fields of concentration, and pass at least two additional 700-level economics courses with grades of B or better. Each student must also submit an acceptable dissertation. A minimum of forty-five hours of graduate work in economics at the 700-level is required for all candidates for the Ph.D. degree in economics.

**CURRICULUM REQUIREMENTS**

**Core Courses**

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<tr>
<td>ECON 709</td>
<td>Research Design/Methodology</td>
<td>1-3</td>
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<tr>
<td>ECON 711</td>
<td>Adv Micro-Economics Theory 2</td>
<td>4</td>
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<td>3</td>
</tr>
<tr>
<td>ECON 723</td>
<td>Dynamic Methods of Economics</td>
<td>1</td>
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<tr>
<td>ECON 725</td>
<td>Econometrics 1</td>
<td>3</td>
</tr>
<tr>
<td>ECON 726</td>
<td>Econometrics 2</td>
<td>3</td>
</tr>
<tr>
<td>ECON 727</td>
<td>Econometrics 3</td>
<td>3</td>
</tr>
</tbody>
</table>

Field 1 Course 1  3
Field 1 Course 2  3
Field 2 Course 1  3
Field 2 Course 2  3

Total Hours  40-42

**SUGGESTED PLAN OF STUDY**

**First Year**

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<td>ECON 727</td>
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**Second Year**

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<td>ECON 726</td>
<td>Econometrics 1</td>
<td>3</td>
</tr>
<tr>
<td>Field 1 Course 1</td>
<td>3</td>
<td>Field 1 Course 2</td>
</tr>
<tr>
<td>Field 2 Course 1</td>
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<td>Field 2 Course 2</td>
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Field 1 Course 1  3
Field 1 Course 2  3
Field 2 Course 1  3
Field 2 Course 2  3

Total Hours  40-42
**Third Year**

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<tbody>
<tr>
<td>ECON 709</td>
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Total credit hours: 40-42

* Six semester hours (or the equivalent) must be taken in each of the student’s two fields of concentration. The areas of concentration offered by the Department are financial economics, international economics, monetary economics, public economics, regional and urban economics, and resource economics. Other fields, conducted in cooperation with other units on campus, may possibly be approved in very unusual cases. Only one of the fields of concentration may be in an outside area; selection must be approved by the graduate economics faculty.

**COURSES**

**ECON 501. Economic Decision Making. 3 Hours.**
PR: ECON 201 and ECON 202. Theory of demand and supply including cost determination, markets and pricing, regulatory economics, national income accounting, the assessment of economics impacts via the multiplier principle, monetary policy, and taxation policy.

**ECON 590. Teaching Practicum. 1-3 Hours.**
PR: Consent. Supervised practice in college teaching of economics. Note: This course is intended to insure that graduate assistants are adequately prepared and supervised when they are given college teaching responsibility. It will also present a mechanism for students not on assistantships to gain teaching experience. (Grading will be P/F.).

**ECON 591A-Z. Advanced Topics. 1-6 Hours.**
PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

**ECON 595. Independent Study. 1-6 Hours.**
Faculty supervised study of topics not available through regular course offerings.

**ECON 693A-Z. Special Topics. 1-6 Hours.**
A study of contemporary topics selected from recent developments in the field.

**ECON 695. Independent Study. 1-6 Hours.**
Faculty supervised study of topics not available through regular course offerings.

**ECON 697. Research. 1-15 Hours.**
PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.).

**ECON 701. Adv Micro-Economic Theory 1. 4 Hours.**
PR: Consent. Theory of production and allocation, utility theory, theory of the firm, pricing in perfect and imperfect markets, models of firm’s operations.

**ECON 702. Adv Macro-Economic Theory 1. 3 Hours.**

**ECON 706. Hist-Economic Doctrns Analysis. 3 Hours.**
PR: ECON 701 and graduate standing or consent. Writings of the major figures in the development of economic doctrines and analysis.

**ECON 709. Research Design/Methodology. 1-3 Hours.**
PR: Consent. Basic research approaches based on examples from the student’s own work, papers presented at the departmental research seminar series, and economics literature in general.

**ECON 711. Adv Micro-Economics Theory 2. 4 Hours.**
PR: ECON 701. General equilibrium analysis, distribution economics.

**ECON 712. Adv Macro-Economic Theory 2. 3 Hours.**
PR: ECON 702. Models of economic growth and fluctuations, and other advanced topics in macroeconomic theory.

**ECON 721. Mathematical Economics. 3 Hours.**
PR: Consent. Mathematics used in economics.

**ECON 723. Dynamic Methods of Economics. 1 Hour.**
PR: ECON 721. This course covers the basic techniques of dynamic economic analysis that economics graduate students will be working with in advanced economic theory and field courses.

**ECON 725. Econometrics 1. 3 Hours.**
PR: ECON 721. Mathematical statistics, including probability, mathematical expectation, distributions. Linear regression, ordinary least squares and simple extensions. Students will use a computer to analyze data.
ECON 726. Econometrics 2. 3 Hours.
PR: ECON 725. Econometric methods used by practicing economist. Includes simultaneous equations, asymptotic properties of estimators, and generalizations of and alternatives to least squares estimation. Also may include qualitative response, panel data, nonlinear, spatial, and time series models.

ECON 727. Econometrics 3. 3 Hours.
PR: ECON 726. Completes the graduate econometrics sequence. Topics may include computational methods and time series, spatial, nonlinear, qualitative response, and panel data models.

ECON 729. Spatial Econometrics. 3 Hours.
Explores the various types of spatial econometric models and how they are estimated and interpreted. Maximum likelihood and Bayesian methodologies will be demonstrated both mathematically and in an applied setting.

ECON 731. Monetary Economics 1. 3 Hours.
PR: ECON 702. Sources and determinants of supply of money; demand for money for transactions and speculative purposes; general equilibrium of money, interest, prices, and output; role of money in policy.

ECON 732. Monetary Economics 2. 3 Hours.
PR: ECON 731. Further topics in monetary economics.

ECON 735. Portfolio Theory. 3 Hours.
PR: ECON 701 and ECON 702. Basics of decision making under risk. Portfolio choice under various utility and returns specifications. Asset allocation over time.

ECON 736. Asset Pricing. 3 Hours.
PR:ECON 735. Theories of the determination of prices and returns in financial markets. Properties of general static and intertemporal asset pricing models and determinants of equilibrium returns in specific general equilibrium models.

ECON 739. Seminar in Financial Economics. 3 Hours.
PR: ECON 735 and ECON 736 or consent. Covers advanced topics in financial economics such as pricing of derivatives and issues in corporate finance.

ECON 741. Public Economics 1. 3 Hours.
PR: ECON 701. Economic role of government in a mixed economy with regard to topics such as resource allocation and distribution of income; social choice mechanisms; fiscal federalism; and revenue.

ECON 742. Public Economics 2. 3 Hours.
PR: ECON 741. Continuation of public economics.

ECON 743. State & Local Public Economics. 3 Hours.
PR: ECON 741 and ECON 742 or consent. Economic roles of state and local governments emphasizing empirical research and policy implications. Particular attention to intergovernmental competition, government performance, service provision, and revenue sources.

ECON 751. International Trade. 3 Hours.
PR: ECON 701. Contemporary theories of international trade; analysis of current problems in world trade.

ECON 752. International Macro-Economics.. 3 Hours.
PR: ECON 702. Current theories and policies concerning balance of payments, international capital movements, and foreign exchange, and their relation to the macro economy.

ECON 754. Comparative Economic Systems. 3 Hours.
PR: ECON 701. Comparative study of economic systems, including planned and market socialism and capitalism and the experience of countries in transition from socialism to capitalism.

ECON 755. Development Economics. 3 Hours.
PR: ECON 701. This course explores why some countries are rich and others are poor. Class examines the major phases of thinking in development economics and themes in the contemporary development literature.

ECON 761. Advanced Regional Economics. 3 Hours.
PR: ECON 701 and graduate standing or consent. Regional income and flow of funds estimation, regional cyclical behavior and multiplier analysis, industrial location and analysis, techniques of regional input-output measurement, impact of local government reorganization on regional public service and economic development.

ECON 762. Advanced Urban Economics. 3 Hours.
PR: ECON 701. Theory, policy, and empirical research regarding growth and decline of cities, urban spatial structure and land-use patterns, intrametropolitan employment location, urban transportation, housing, housing market discrimination, local government structure, fiscal problems, and urban redevelopment.

ECON 764. Semina in Regional Economics. 3 Hours.
PR: Consent.

ECON 791A-Z. Advanced Topics. 1-6 Hours.
PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.
ECON 792A-Z. Directed Study. 1-6 Hours.
Directed study, reading, and/or research.

ECON 793A-Z. Special Topics. 1-6 Hours.
A study of contemporary topics selected from recent developments in the field.

ECON 794A-Z. Seminar. 1-6 Hours.
Special seminars arranged for advanced graduate students.

ECON 795. Independent Study. 1-9 Hours.
Faculty supervised study of topics not available through regular course offerings.

ECON 796. Graduate Seminar. 1 Hour.
PR: Consent. Each graduate student will present at least one seminar to the assembled faculty and graduate student body of his or her program.

ECON 797. Research. 1-15 Hours.
PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.)

ECON 798. Dissertation. 1-6 Hours.
PR: Consent. This is an optional course for programs that wish to provide formal supervision during the writing of student reports (698), or dissertations (798). Grading is normal.

ECON 799. Graduate Colloquium. 1-6 Hours.
PR: Consent. For graduate students not seeking coursework credit but who wish to meet residency requirements, use of the University's facilities, and participate in its academic and cultural programs. Note: Graduate students who are not actively involved in coursework or research are entitled, through enrollment in their department's 699/799 Graduate Colloquium to consult with graduate faculty, participate in both formal and informal academic activities sponsored by their program, and retain all of the rights and privileges of duly enrolled students. Grading is P/F; colloquium credit may not be counted against credit requirements for masters programs. Registration for one credit of 699/799 graduate colloquium satisfies the University requirement of registration in the semester in which graduation occurs.

ECON 930. Professional Development. 1-6 Hours.
Professional development courses provide skill renewal or enhancement in a professional fields or content area (e.g., education, community health, geology). These tuition-waived continuing education courses are graded on a pass/fail grading scale and do not apply as graduate credit toward a degree program.