

APPLIED ECONOMICS

Degree: B.S., Economics: Applied Economics

Department of Economics (<https://cas.umw.edu/economics/>)

Economics is a method of analyzing human behavior in any environment subject to scarcity. As such, it provides insight into a wide range of social problems and issues, including unemployment, inflation, poverty, discrimination, international trade, the environment, and the role of government in society.

The major in Applied Economics is intended for students interested in careers that involve applying economic methods in industry and commerce. The major emphasizes quantitative analysis and written and oral communication.

With an emphasis on writing, speaking, computing, quantitative methods, and other research skills, graduates are equipped with a general education to lead productive lives in the twenty-first century. The University's proximity to Washington, D.C., and a supportive local business community create stimulating internship opportunities.

Two organizations that promote the study of economics are associated with the department. The Economics Club encourages discussion of current issues, sponsors speakers and social events, and kindles interaction among students and faculty. It is open to all students. Omicron Delta Epsilon is a national economics honor society for students with superior academic records.

Each year, the department bestows five awards. The Henry W. Hewetson Award is presented to a graduating senior to honor academic achievement and service to the department. The other awards are scholarships to promote study in economics. The James Harvey Dodd Award is given to a junior economics major based on financial need and academic achievement. The Adam Smith Award is given to a graduating senior based on potential for graduate study. The Fred E. Miller Memorial Scholarship is awarded annually to a rising junior or senior who is double-majoring in Economics and Business Administration. The Richard George Allgaier Scholarship is awarded to economics and accounting majors.

The recommended introductory courses are ECON 201B Principles of Macroeconomics and ECON 202B Principles of Microeconomics. ECON 300 Introduction to Economic Analysis introduces students to the methods of economic analysis and should be taken as early as possible in the student's curriculum. These three courses prepare students for 300 and 400-level courses on a variety of theoretical and applied topics. ECON 490 Experiential Learning exposes students to the economics profession through experiential learning in the discipline.

Student Learning Outcomes

1. Students will use critical thinking skills to address economic issues and problems.
2. Students will effectively communicate the results of economic analysis.
3. Students will apply economic approaches to decision-making.
4. Students will think critically and apply the theoretical and empirical tools of professional economists to a wide range of issues.

Major Requirements

Code	Title	Credits
ECON 201B	Principles of Macroeconomics	3
ECON 202B	Principles of Microeconomics	3
ECON 300	Introduction to Economic Analysis	3
ECON 303	Microeconomics	3
ECON 304	Macroeconomics	3
ECON 361A	Introductory Econometrics	3
ECON 462	Advanced Economic Analysis	3
Select twelve (12) additional credits in ECON (300 or 400 level) or business or economics related courses listed below ^{1, 2}		12
Anthropology		
ANTH 317	World Economies	
ANTH 321	Anthropology of Food	
ANTH 365	Environment and Development Narratives: The Modern Myths of Nature and Progress	
Computer Science		
CYBR 345	Introduction to Computer Security	
CPSC 415	Artificial Intelligence	
CPSC 425	Parallel Computing	
Data Science		
DATA 352	Analytics I: Predictive Models	
DATA 353	Analytics II: Optimization Models	
DATA 401	Applied Machine Learning	
DATA 402	Analytics Applications and Development	
DATA 419	Data Mining	
DATA 420	Modeling and Simulation	
Environmental and Earth Sciences		
EESC 230	Global Environmental Problems	
EESC 326	Pollution Prevention Planning	
EESC 330	Environmental Regulations	
Geography		
GEOG 236	Globalization and Local Development	
GEOG 331	Race and Place in America	
GEOG 332	Migration Politics in a Globalizing World	
GEOG 337	The Nature of Cities	
GEOG 339A	Development Studies	
GEOG 352	Quantitative Methods in Geography	
GEOG 361	Sustainability in Guatemala	
History		
HIST 308	US Labor History	
HIST 310	US Urban History	
HIST 322	US Environmental History	
HIST 370	History of Socialism	
HIST 444	American Slavery	
Mathematics		
MATH 300	Linear Algebra	
MATH 312	Differential Equations	
MATH 351A	Numerical Analysis I	
MATH 352A	Numerical Analysis II	
MATH 411	Chaotic Dynamical Systems	
MATH 412	Complex Variables	

MATH 421	Applied Partial Differential Equations
MATH 471	Real Analysis
MATH 472	Real Analysis
MATH 481	Theory of Interest
Political Science	
PSCI 202A	American Public Policy
PSCI 304	Contemporary American Politics
PSCI 350B	Politics of Developing Countries
PSCI 351	International Political Economy
PSCI 372	Gender and Development
PSCI 375	Gender and Public Policy
Sociology	
SOCG 304	Social Stratification
SOCG 313	Urban Sociology
SOCG 332	Introduction to Social Welfare
SOCG 354	Environmental Sociology
SOCG 434	Gender and Work
SOCG 440	Sociology of Education
Statistics	
STAT 320	Applied Regression Analysis
STAT 420	Applied Multivariate Statistics
STAT 381	Probability and Statistical Inference
STAT 382	Probability and Statistical Inference
Total Credits	33

¹ No more than nine (9) hours in experiential learning courses (ECON 490 Experiential Learning, ECON 491 Individual Study in Economics, and ECON 499 Internship) may count toward the major

² NOTE: A student who has not declared a Business major is limited to taking no more than 27 hours in business or business-related courses defined as those courses with the following prefixes: ACCT, BLAW, BUAD, DSCI, FINC, MKTG, MGMT, MIST, CIST, or LRSP.

General Education Requirements

The general education requirements for Bachelor of Arts/Bachelor of Science degrees (<https://catalog.umw.edu/undergraduate/general-education/requirements-bachelor-arts-bachelor-science-degrees/>) apply to all students who are seeking to earn an undergraduate B.A., B.S. or B.S.Ed. degree.

Students seeking a Bachelor of Liberal Studies degree have a separate set of BLS general education requirements (<https://catalog.umw.edu/undergraduate/general-education/requirements-bachelor-liberal-studies-degrees/>).

Electives

Elective courses are those that are not needed to fulfill a general education requirement or major program requirement but are chosen by the student to complete the 120 credits required for graduation with a B.A./B.S./B.S.Ed. degree or the BLS degree. These courses may be taken graded or pass/fail (or S/U in the case of physical education and 100-level dance). No student in a regular B.A./B.S./B.S.Ed. program may count more than 60 credits in a single discipline toward the 120 credits required for graduation.

Total Credits Required for the Degree: 120 credits

Plan of Study

This suggested plan of study should serve as a guide to assist students when planning their course selections. It is not a substitute for a student's Degree Evaluation or the Program Requirements listed for this major in the catalog. Academic planning is the student's responsibility, and course selections should be finalized only after speaking with an advisor. Students should familiarize themselves with the catalog in effect at the time they matriculated at the University of Mary Washington. Students should also familiarize themselves with general education requirements (<https://catalog.umw.edu/undergraduate/general-education/>) which can be fulfilled through general electives as well as major/minor course requirements. Course requirements and sequencing may vary with AP, IB, CLEP, Cambridge or previous coursework, transfer courses, or other conditions. To be considered full-time, an undergraduate student must be enrolled in 12 or more credits for the semester.

Course	Title	Credits
Freshman		
Fall		
ECON 201B or ECON 202B	Principles of Macroeconomics or Principles of Microeconomics	3
FSEM 100	First-Year Seminar	3
General Education Courses		9
Credits		15
Spring		
ECON 201B or ECON 202B	Principles of Macroeconomics or Principles of Microeconomics	3
General Education Courses		12
Credits		15
Sophomore		
Fall		
ECON 304	Macroeconomics	3
General Education Courses or Electives		12
Credits		15
Spring		
ECON 303	Microeconomics	3
General Education Courses or Electives		12
Credits		15
Junior		
Fall		
General Education Courses or Electives		15
Credits		15
Spring		
ECON 300	Introduction to Economic Analysis	3
General Electives		12
Credits		15
Senior		
Fall		
ECON 361A	Introductory Econometrics	3
General Electives		12
Credits		15
Spring		
ECON 462	Advanced Economic Analysis	3
General Electives		12
Credits		15
Total Credits		120

Economics Faculty

Rachel L. Graefe-Anderson, Chair

Professors

Bradley A. Hansen

Associate Professors

Amrita Dhar

W. Shawn Humphrey

Don D. Lee