BACHELOR OF SCIENCE WITH A MAJOR IN ECONOMICS

Economics is a versatile major where students develop analytical and quantitative abilities while learning about the functionality of the economy. Students in GW’s economics program investigate the consequences of scarcity, which forces people, organizations, and governments to choose among competing objectives. They also learn how to understand the workings of markets and how prices are determined. GW’s Department of Economics is a community of teachers and researchers in which students learn and work alongside experts in macroeconomics, microeconomics, labor economics, the economics of industry, international finance, international trade and development, money and banking, the economics of government and public policy, and econometrics. Outside the classroom, GW’s location provides unparalleled access to economic institutions like the World Bank, International Monetary Fund, Federal Reserve, Federal Trade Commission, and Department of Labor.

Visit the program website (https://economics.columbian.gwu.edu/) for additional information.

ADMISSIONS

For information about the admission process, including deadlines, visit the Office of Undergraduate Admissions website (https://undergraduate.admissions.gwu.edu/). Applications can be submitted via the Common Application (https://go.gwu.edu/commonapp/).

Supporting documents not submitted online should be mailed to:

Office of Undergraduate Admissions
The George Washington University
800 21st St NW Suite 100
Washington, DC 20052

For questions visit undergraduate.admissions.gwu.edu/contact-us (http://undergraduate.admissions.gwu.edu/contact-us/).

REQUIREMENTS

The following requirements must be fulfilled:

The general requirements stated under Columbian College of Arts and Sciences, Undergraduate Programs (http://bulletin.gwu.edu/arts-sciences/#degreeregulationstext) and the following curricular requirements.

Program-specific curriculum:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td><strong>Required core courses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECON 1011</td>
<td>Principles of Economics I</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1012</td>
<td>Principles of Economics II</td>
<td>1</td>
</tr>
<tr>
<td>ECON 2103</td>
<td>Intermediate Microeconomic Theory: A Mathematical Approach</td>
<td></td>
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<tr>
<td>or ECON 2101</td>
<td>Intermediate Microeconomic Theory</td>
<td></td>
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<tr>
<td>ECON 2104</td>
<td>Intermediate Macroeconomic Theory: A Mathematical Approach</td>
<td></td>
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<tr>
<td>or ECON 2102</td>
<td>Intermediate Macroeconomic Theory</td>
<td></td>
</tr>
<tr>
<td>ECON 2123</td>
<td>Introduction to Econometrics</td>
<td></td>
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<tr>
<td>ECON 4198W</td>
<td>Proseminar in Economics</td>
<td></td>
</tr>
<tr>
<td>MATH 1221</td>
<td>Calculus with Precalculus II</td>
<td>2</td>
</tr>
<tr>
<td>or MATH 1231</td>
<td>Single-Variable Calculus I</td>
<td></td>
</tr>
<tr>
<td>MATH 1232</td>
<td>Single-Variable Calculus II</td>
<td>2</td>
</tr>
<tr>
<td>STAT 1111</td>
<td>Business and Economic Statistics I (or equivalent)</td>
<td>2</td>
</tr>
<tr>
<td>or STAT 1051</td>
<td>Introduction to Business and Economic Statistics</td>
<td></td>
</tr>
<tr>
<td>or STAT 1053</td>
<td>Introduction to Statistics in Social Science</td>
<td></td>
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<tr>
<td><strong>STEM electives</strong></td>
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</tbody>
</table>

Two courses (6 credits) selected from the following and completed with a minimum grade of C-:

CSCI 1011  Introduction to Programming with Java
CSCI 1012  Introduction to Programming with Python
CSCI 1111  Introduction to Software Development
CSCI 1112  Algorithms and Data Structures
CSCI 1311  Discrete Structures I
EMSE 2705  Mathematics of Operations Research
EMSE 3850  Quantitative Models in Systems Engineering
EMSE 4701  Optimization in Operations Research
EMSE 4710  Applied Optimization Modeling
MATH 2184  Linear Algebra I
MATH 2233 Multivariable Calculus ³
MATH 2971 Introduction to Mathematical Reasoning ³
MATH 3342 Ordinary Differential Equations ³
MATH 3410 Mathematics of Finance ³
MATH 4239 Real Analysis I ³
STAT 1129 Introduction to Computing
STAT 2183 Intermediate Statistics Lab/Packages
STAT 3119 Design and Analysis of Experiments
STAT 3187 Introduction to Sampling
STAT 4157 Introduction to Mathematical Statistics I
STAT 4158 Introduction to Mathematical Statistics II
STAT 4181 Applied Time Series Analysis
STAT 4188 Nonparametric Statistics Inference
STAT 4189 Mathematical Probability and Applications I
STAT 4190 Mathematical Probability and Applications II
STAT 4197 Fundamentals of SAS Programming for Data Management

Additional requirements

15 credits in five ECON courses numbered between 2000 and 4999 are required. At least one of these courses should be numbered between 3000 and 3999. The following guidelines and restrictions apply to this requirement:

FINA 3101 and/or FINA 3301 may be used as substitutes for up to two ECON elective courses numbered between 2000 and 4999. However, credit may not be earned for both FINA 3301 and ECON 2121.

ECON 3098, ECON 3099, FINA 3101, and FINA 3301 are not considered 3000-level ECON electives and therefore do not fulfill the requirement for one 3-credit ECON course numbered from 3000 to 3999.

No more than three of the following courses can be taken to fulfill this requirement: ECON 2169, ECON 2198, ECON 3098, and ECON 3198.

No more than two of the following courses can be used to fulfill this requirement: ECON 2180, ECON 2181, and ECON 2182. ECON 2180 does not satisfy the major elective requirement if taken concurrently with or after successful completion of ECON 2181 or ECON 2182.

³Post-matriculation residency requirement: For ECON 1011 and ECON 1012 to count toward the major it must be completed at GW with a minimum grade of C-. Students who matriculate with AP or transfer credit for ECON 1011 and/or ECON 1012 are exempt from this residency requirement for the relevant course(s).

²The MATH course selected from MATH 1221 or MATH 1231, as well as MATH 1232, must be completed with a minimum grade of C-. The STAT course selected from STAT 1051, STAT 1053, or STAT 1111 must be completed with a minimum grade of C-.

³MATH 2233, MATH 2971, MATH 3342, MATH 3410, and MATH 4239 are strongly recommended for students planning to pursue graduate studies in economics.

GENERAL EDUCATION

In addition to the University General Education Requirement (http://bulletin.gwu.edu/university-regulations/general-education/), undergraduate students in Columbian College must complete a further, College-specific general education curriculum—Perspective, Analysis, Communication (G-PAC) (http://bulletin.gwu.edu/arts-sciences/gpac/) as well as CCAS 1001. Together with the University General Education Requirement, G-PAC engages students in active intellectual inquiry across the liberal arts. Students achieve a set of learning outcomes that enhance their analytical skills, develop their communication competencies, and invite them to participate as responsible citizens who are attentive to issues of culture, diversity, and privilege.

Coursework for the University General Education Requirement is distributed as follows:

- Writing—4 credits in UW 1020 University Writing and 6 credits taken in at least two writing in the disciplines (WID) courses in two or more separate semesters. WID courses are designated by a “W” appended to the course number.
- Humanities—one approved humanities course that involves critical thinking skills.
- Mathematics or statistics—one approved course in either mathematics or statistics.
- Natural or physical science—one approved laboratory course that employs the process of scientific inquiry.
- Social Sciences—two approved courses in the social sciences that employ critical thinking, quantitative reasoning, or scientific reasoning.

Coursework for the CCAS G-PAC requirement is distributed as follows:

- Arts—one approved arts course that involves the study or creation of artwork based on an understanding or interpretation of artistic traditions or knowledge of art in a contemporary context.
Global or cross-cultural perspective—one approved course that analyzes the ways in which institutions, practices, and problems transcend national and regional boundaries.

Local or civic engagement—one approved course that develops the values, ethics, disciplines, and commitment to pursue responsible public action.

Oral communication—one approved course in oral communication.

Natural or physical science—one additional approved laboratory course that employs the process of scientific inquiry (in addition to the one course in this category required by the University General Education Requirement).

Humanities—one additional approved humanities course that involves critical thinking skills (in addition to the one course in this category required by the University General Education Requirement).

CCAS 1001 First-Year Experience

Certain courses are approved to fulfill GPAC requirements in more than one category.

Courses taken in fulfillment of G-PAC requirements may also be counted toward majors or minors. Transfer courses taken prior to, but not after, admission to George Washington University may count toward the University General Education Requirement and G-PAC, if those transfer courses are equivalent to GW courses that have been approved by the University and the College.

Lists of approved courses in the above categories are included on each undergraduate major’s page in this Bulletin.

SPECIAL HONORS

In addition to meeting general requirements stated under University Regulations, to be considered for graduation with Special Honors in Economics, students must have taken at least six graded GWU ECON courses (18 credits) prior to the graduation semester; have a minimum ECON GPA of 3.80 (calculated using all ECON courses completed at GWU prior to the graduation semester); submit a completed application for special honors to the ECON Department at the beginning of their graduation semester.

A student may also be considered for Special Honors in Economics if their proseminar research paper nominated for departmental prizes.

COMBINED PROGRAM

Combined program

- Dual Bachelor of Arts or Bachelor of Science with a major in economics and Master of Public Policy (http://bulletin.gwu.edu/arts-sciences/economics/combined-ba-or-bs-and-mpp/)