Economics

Degree Offered

• Bachelor of Science

Nature of the Program

In the broadest sense, economics is the science of decision-making. In economics, students learn how to identify the costs, benefits, and consequences of a decision. Government economists assess economic conditions in the U.S. and abroad and estimate the economic impact of specific changes in legislation or public policy. Economists in private industry work for marketing research firms, management consulting firms, banks, investment firms, insurance companies, and in pricing and strategy departments of firms like Amazon and Microsoft. A degree in economics is also highly desirable for students who plan to attend law school or graduate school in economics, data analytics, or public policy. The John Chambers College of Business and Economics has an excellent record of placing economics students in both law and graduate schools.

The Department of Economics has several areas of strength including market-based solutions to social and economic problems, urban and regional economics, and health economics.

Economics is an excellent major for anybody interested in a career in:

• Banking
• Business
• Domestic government service
• Foreign service
• Law
• Politics

FACULTY

DEPARTMENT CHAIRPERSON

• Joshua Hall - Ph.D. (West Virginia University)
  Public Economics, Public Choice, Urban and Regional Economics

PROFESSORS

• Roger Congleton - Ph.D. (Virginia Polytechnic Institute and State University)
  Public Economics, Public Choice, Constitutional Political Economy

• Joshua Hall - Ph.D. (West Virginia University)
  Public Economics, Public Choice, Urban and Regional Economics

• Brad Humphreys - Ph.D. (Johns Hopkins University)
  Urban and Regional Economics, Sports Economics

• Feng Yao - Ph.D. (Oregon State University)
  Theoretical Econometrics, Applied Econometrics

ASSOCIATE PROFESSORS

• Arabinda Basistha - Ph.D. (University of Washington)
  Empirical Macroeconomics, International Finance

• John Deskins - Ph.D. (University of Tennessee)
  Public Economics

• Bryan McCannon - Ph.D. (Pennsylvania State University)
  Public Economics, Public Choice, Law and Economics

• Shuichiro Nishioka - Ph.D. (University of Colorado at Boulder)
  International Trade, Economic Development

• Adam Nowak - Ph.D. (Arizona State University)
  Applied Econometrics, Urban and Regional Economics

• Eric Olson - Ph.D. (University of Alabama)
  Empirical Macroeconomics, Monetary Economics, Financial Economics

• Jane Ruseski - Ph.D. (Johns Hopkins University)
  Health Economics, Sports Economics
2 \textit{Economics}

- Scott Schuh - Ph.D. (Johns Hopkins University)  
  Applied Macro Theory, Monetary Economics, Household Finance

\textbf{ASSISTANT PROFESSORS}
- Daniel Grossman - Ph.D. (Cornell University)  
  Health Economics
- Alexander Lundberg - Ph.D. (Emory University)  
  Law and Economics, Public Economics

\textbf{EMERITI}
- Robert Britt
- Brian Cushing
- Stratford Douglas
- Clifford Hawley
- Ming-Jeng Hwang
- Patrick Mann
- William Reece
- Tom Witt

\textbf{ADJUNCT PROFESSORS}
- Victor Chow - Ph.D. (University of Alabama)
- Randall Jackson - Ph.D. (University of Illinois at Urbana-Champaign)
- David Martinelli - Ph.D. (University of Maryland)
- Timothy Phipps - Ph.D. (University of California)
- Peter Schaeffer - Ph.D. (University of Southern California)
- Paul Speaker - Ph.D. (Purdue University)

\textbf{Admissions}

Students who are direct admitted to the major as first-time freshmen must possess an overall GPA of at least 2.5 and have completed the course prerequisites listed in the table below with minimum grade of C-, unless otherwise noted, to be eligible to enroll in upper-division course work.

Students who are not direct admitted to the major (i.e. Business) will declare the major at the beginning of the semester in which they satisfy the course prerequisites listed below. Applicants also must possess an overall GPA of at least 2.5 to be considered for admission to the major.

\begin{tabular}{|l|l|c|}
\hline
ACCT 201 & Principles of Accounting & 6 \\
& & \\
& & \\
CS 101 & Intro to Computer Applications & 4 \\
ECON 201 & Principles of Microeconomics & 6 \\
& & \\
& & \\
ECON 225 & Elementary Business and Economics Statistics & 3 \\
& or STAT 211 & Elementary Statistical Inference \\
& & \\
ENGL 101 & Introduction to Composition and Rhetoric & 3-6 \\
& & \\
& & \\
& or ENGL 103 & Accelerated Academic Writing \\
Choose one of the following: & & 3-4 \\
MATH 124 & Algebra with Applications & \\
MATH 126 & College Algebra & \\
MATH 129 & Pre-Calculus Mathematics & \\
MATH 153 & Calculus 1a with Precalculus & \\
Choose one of the following: & & 3-4 \\
MATH 150 & Applied Calculus & \\
MATH 154 & Calculus 1b with Precalculus & \\
MATH 155 & Calculus 1 & \\
MATH 156 & Calculus 2 & \\
\hline
Total Hours & & 28-33 \\
\end{tabular}
Students who are direct admitted to the major and meet the requirements listed above are guaranteed permission to enroll in upper-division coursework. The Chambers College will accommodate as many economics majors as resources are available. Students who are denied admission to the economics major may apply for admission in a future application period or accept admission to an alternative major in the Chambers College.

* A minimum grade of one B- and one C- are required in ECON 201 and ECON 202 for admission to the program.

** A minimum grade of B- is required in MATH 150 for admission to the program. A grade of C- in MATH 154 or a higher college calculus course satisfies the calculus requirement for admission to the program.

Click here to view the Suggested Plan of Study (p. 4)

**Economics Program Requirements**

**General Education Foundations**

Please use this link to view a list of courses that meet each GEF requirement. (http://registrar.wvu.edu/gef/)

NOTE: Some major requirements will fulfill specific GEF requirements. Please see the curriculum requirements listed below for details on which GEFs you will need to select.

**General Education Foundations**

<table>
<thead>
<tr>
<th>F1 - Composition &amp; Rhetoric</th>
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<tbody>
<tr>
<td>ENGL 101 &amp; ENGL 102</td>
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<tr>
<td>or ENGL 103</td>
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</tr>
<tr>
<td>Introduction to Composition and Rhetoric and Composition, Rhetoric, and Research</td>
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<tr>
<td>Accelerated Academic Writing</td>
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<table>
<thead>
<tr>
<th>F2A/F2B - Science &amp; Technology</th>
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<tbody>
<tr>
<td>F3 - Math &amp; Quantitative Reasoning</td>
<td>3-4</td>
</tr>
<tr>
<td>F4 - Society &amp; Connections</td>
<td>3</td>
</tr>
<tr>
<td>F5 - Human Inquiry &amp; the Past</td>
<td>3</td>
</tr>
<tr>
<td>F6 - The Arts &amp; Creativity</td>
<td>3</td>
</tr>
<tr>
<td>F7 - Global Studies &amp; Diversity</td>
<td>3</td>
</tr>
<tr>
<td>F8 - Focus (may be satisfied by completion of a minor, double major, or dual degree)</td>
<td>9</td>
</tr>
</tbody>
</table>

**Total Hours**

31-37

Please note that not all of the GEF courses are offered at all campuses. Students should consult with their advisor or academic department regarding the GEF course offerings available at their campus.

**Degree Requirements**

To qualify for the Bachelor of Science in Economics students must meet the following criteria:

- Complete a minimum of 120 credit hours.
- Possess an overall GPA of 2.0.
- Possess a minimum GPA of 2.0 for all major courses (i.e. ECON), calculated using all attempted GPA hours unless excluded by the D/F repeat policy.
- The College of Business and Economics accepts all baccalaureate transferable course work completed at public and private colleges in West Virginia and other regionally accredited institutions. Since the College is AACSB accredited, upper-division courses (courses equivalent to 300/400 level at WVU) must be evaluated by the Dean or designee before they may count toward business core, major core and major restricted electives in the Bachelor of Science in Business Administration or Bachelor of Science in Economics program.

**Curriculum Requirements**

Most economics electives should not be attempted until ECON 301 has been completed with a minimum grade of C-. Students interested in graduate work in economics should take ECON 421 and ECON 425. Of the twenty-one semester hours of required business electives and business and economics electives completed by an Economics major, no more than twelve semester hours may consist of economics courses.

Minimum GPA of 2.0 is required

Possess a minimum GPA of 2.0 for all major courses (i.e. ECON), calculated using all attempted GPA hours unless excluded by the D/F repeat policy.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ACCT 201</td>
<td>Principles of Accounting (Minimum grade of C-)</td>
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</tr>
<tr>
<td>ACCT 202</td>
<td>Principles of Accounting (Minimum grade of C-)</td>
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</tr>
<tr>
<td>CS 101</td>
<td>Intro to Computer Applications (Minimum grade of C-; may fulfill GEF 2A)</td>
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### Suggested Plan of Study

#### First Year

<table>
<thead>
<tr>
<th>Term</th>
<th>Fall</th>
<th>Hours Spring</th>
<th>Hours Spring</th>
<th>Spring</th>
<th>Hours Spring</th>
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<tbody>
<tr>
<td></td>
<td>BCOR 191</td>
<td>1 ACCT 201</td>
<td>3</td>
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<tr>
<td></td>
<td>BCOR 199</td>
<td>3 ECON 201 (GEF 4)</td>
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<td>CS 101 (GEF 2A)</td>
<td>4 ENGL 101 (GEF 1)</td>
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<tr>
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<td>Select one of the following:</td>
<td>3-4 Select one of the following:</td>
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<tr>
<td></td>
<td>MATH 124</td>
<td>MATH 150</td>
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<td></td>
<td>MATH 129</td>
<td>MATH 154</td>
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<td></td>
<td>MATH 150</td>
<td>MATH 155</td>
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<td></td>
<td>MATH 153</td>
<td>MATH 156</td>
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<td></td>
<td>MATH 155</td>
<td>GEF (Choose from F2A, F5, F6 or F7)</td>
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<td></td>
<td>GEF (Choose from F2A, F5, F6 or F7)</td>
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<tr>
<td></td>
<td>Unrestricted Electives</td>
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**Total Hours:** 17
Second Year

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<tr>
<th>Fall Courses</th>
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<th>Spring Courses</th>
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<tbody>
<tr>
<td>ACCT 202</td>
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<td>BCOR 299</td>
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<tr>
<td>ECON 202 (GEF 8)</td>
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<td>Business Elective</td>
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<tr>
<td>ECON 225 (GEF 8)</td>
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<td>Business and Economics Elective</td>
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<td>ENGL 102 (GEF 1)</td>
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<td>ECON 301</td>
<td>3</td>
</tr>
<tr>
<td>GEF (Choose from F2A, F5, F6 or F7)</td>
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<td>GEF (Choose from F2A, F5, F6 or F7)</td>
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Third Year

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<th>Fall Courses</th>
<th>Hours</th>
<th>Spring Courses</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Business and Economics Elective</td>
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<td>Business and Economics Elective</td>
<td>3</td>
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<tr>
<td>ECON 302</td>
<td>3</td>
<td>Economics Elective</td>
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<tr>
<td>Economics Elective</td>
<td>3</td>
<td>6 Minor or Unrestricted Electives</td>
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<td>Minor or Unrestricted Electives</td>
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<td>15</td>
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<td>15</td>
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Fourth Year

<table>
<thead>
<tr>
<th>Fall Courses</th>
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<th>Spring Courses</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Business Elective</td>
<td>3</td>
<td>3 Business Elective</td>
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<tr>
<td>Business and Economics Elective</td>
<td>3</td>
<td>ECON 481</td>
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<tr>
<td>Economics Elective</td>
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<td>3 Economics Elective</td>
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<tr>
<td>Minor or Unrestricted Electives</td>
<td>6</td>
<td>6 Minor or Unrestricted Electives</td>
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<tr>
<td>Total Hours</td>
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</table>

Total credit hours: 120

**Major Learning Outcomes**

**ECONOMICS**

The objective of providing a foundational education in economics at the undergraduate level cannot be realized without appropriate curricula content, effective teaching, and ultimately, learning. Within the undergraduate economics major, we subscribe to the following learning goals for each of our undergraduate students.

- Students can use supply and demand to analyze how world events affect market equilibrium prices and quantities.
- Students understand the theory of the firm and its implications for prices and production under different market structures.
- Students understand the role of prices and profits and losses in coordinating economic activity.
- Students can evaluate the efficiency of competitive market outcomes relative to alternative arrangements.
- Students can explain how GDP, the unemployment rate, inflation, interest rates, and economic growth are measured, can distinguish between real and nominal variables, and can explain the significance of these measures.
- Students understand and can analyze the determinants of long-run variations in national economic growth rates, wealth, and income.
- Students understand and can analyze the determinants of short-run fluctuations of economic variables over the business cycle.
- Students understand the goals and tools of monetary and fiscal policy.

**Economics Minor**

**Minor Code - U003**

To earn a minor in economics, a student must complete the following courses with a grade point average of 2.0 or better:

**Core Economics Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ECON 201</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 202</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Economics Electives:**

Select any three economics courses at the 300-level or above.

Total Hours

15

Note: Students may only declare two minors from the John Chambers College of Business and Economics.
COURSES

ECON 191. First-Year Seminar. 1-3 Hours.
Engages students in active learning strategies that enable effective transition to college life at WVU. Students will explore school, college and university programs, policies and services relevant to academic success. Provides active learning activities that enable effective transition to the academic environment. Students examine school, college and university programs, policies and services.

ECON 200. Survey of Economics. 3 Hours.
Introduction to the analysis of the economic system, pricing system, monetary system, determination of all national income and employment.

ECON 201. Principles of Microeconomics. 3 Hours.
PR: Sophomore standing. Introductory microeconomics analysis. Competitive behavior of firms, price determination, efficiency in production and equity in distribution. Pre-requisite(s) and/or co-requisite(s) may differ on regional campuses.

ECON 202. Principles of Macroeconomics. 3 Hours.
PR: ECON 201 or ARE 150. Introductory macroeconomics analysis, prerequisites are not enforced at WVUIT and Potomac State campuses. Aggregate demand and supply, saving, investment, the level of employment and national income determination, monetary and fiscal policy.

ECON 225. Elementary Business and Economics Statistics. 3 Hours.
PR: MATH 122 or MATH 123 or MATH 126 or MATH 129 or MATH 154 or MATH 155 or MATH 156 with a minimum grade of D-. Basic concepts of statistical models, distributions, probability, random variables, tests of hypotheses, confidence intervals, regression and correlation with emphasis on business and economics examples. (Equivalent to STAT 211.) (Not open to students who have completed STAT 215.)

ECON 293. Special Topics. 1-6 Hours.
PR: Consent. Investigation of topics not covered in regularly scheduled courses.

ECON 297. Research. 1-6 Hours.
Independent research projects.

ECON 301. Intermediate Micro-Economic Theory. 3 Hours.
PR: ARE 150 or ECON 201 with a minimum grade of C-. Consumer choice and demand; price and output determination of the firm, and resource allocation, under different market structures; welfare economics, externalities, public goods, and market failure; general equilibrium; other topics.

ECON 302. Intermediate Macro-Economic Theory. 3 Hours.
PR: (ECON 201 or ARE 150) and ECON 202 with a minimum grade of C- in all. Forces which determine the level of income, employment, output, the inflation rate, and the balance of trade. Particular attention to consumer behavior, investment determination, and government fiscal and monetary policy.

ECON 306. History of Economic Thought. 3 Hours.
PR: ECON 201 and ECON 202. Economic ideas in perspective of historic development.

ECON 331. Money and Banking. 3 Hours.
PR: ECON 201 and ECON 202. The U.S. monetary and banking system and its functional relationship to the economic system; monetary theory and policy.

ECON 411. Moral Foundations of Capitalism. 3 Hours.
PR: ECON 201 and ECON 202. Introduction to the moral foundations of capitalism. Compare and contrast alternative ethical systems using economic analysis when relevant.

ECON 421. Introduction to Mathematical Economics. 3 Hours.
PR: ECON 201 and ECON 202 and (MATH 150 or MATH 155 or MATH 156). Principal mathematical techniques including set operation, matrix algebra, differential and integral calculus employed in economic analysis. Particular attention given to static (or equilibrium) analysis, comparative-static analysis and optimization problems in economics.

ECON 425. Introductory Econometrics. 3 Hours.
PR: ECON 201 and ECON 202 and (ECON 225 or STAT 211). Analysis of economic models using basic econometric methods. Specification, computation, and interpretation of linear regression.

ECON 441. Public Economics. 3 Hours.
PR: ECON 202. Economic roles of the public sector. Particular attention to market failure, redistributing income, the financing of public sector activities, relationships between federal, state, and local governments, and public choice.

ECON 443. Law and Economics. 3 Hours.
PR: ECON 201. We will use the tools and reasoning of economics to study the legal system. Legal institutions have been developed to govern our lives. A formal analysis of the outcomes these institutions create is essential to construct policy and institutional changes to promote a prosperous society. We conduct this institutional analysis applying the tools of economics.

ECON 445. Government and Business. 3 Hours.
PR: ECON 201 and ECON 202. Examination of market structure, conduct, and performance. Analysis of market regulation including antitrust laws and regulation of monopolies.
ECON 451. International Economics. 3 Hours.

ECON 454. Comparative Economic Systems. 3 Hours.
PR: ECON 201 and ECON 202. Structure and processes of existing economic systems including capitalism, planned socialism, and market socialism. Problems encountered by economies in transition from planned socialism to capitalism.

ECON 455. Economic Development. 3 Hours.
PR: ECON 202. The problems, changes, and principal policy issues faced by non-industrialized countries.

ECON 461. Regional Economics. 3 Hours.
PR: ECON 201 and ECON 202. Analysis of the regional economy's spatial dimension, emphasizing interregional capital and labor mobility, the role of cities, objectives and issues of regional policy, lagging regions and Appalachia, growth poles, and regional growth and income distribution.

ECON 462. Urban Economics. 3 Hours.
PR: ECON 201 and ECON 202. Analyzes growth, decline, and socioeconomic problems of cities. Topics include the development of cities, urban spatial structure and land-use patterns, poverty and discrimination, housing, urban transportation and congestion, local government structure, and urban fiscal problems.

ECON 463. Applied Regional Economics Research. 3 Hours.
PR: ECON 202 and ECON 225 with a minimum grade of B- in each. This course offers a unique experiential learning opportunity in economics in which students will ultimately conduct, package, and publicly present the type of research that is regularly underway in the BBER. In particular, after learning the basics of econometrics and economic forecasting, students will compile and present an economic outlook report for a particular region in West Virginia.

ECON 465. Health Economics. 3 Hours.
PR: ECON 201 and (ECON 225 or STAT 211). Health economics applies the tools of economics and econometrics to issues of the organization, delivery and financing of health care.

ECON 471. Labor Economics. 3 Hours.
PR: ECON 201 and ECON 202. Labor market analysis. Topics include wage and employment determination, human capital theory, discrimination, unemployment, migration, effects of unions and government regulation, and life-cycle patterns of work.

ECON 481. American Economic History. 3 Hours.

ECON 482. Applied Economic Research. 3 Hours.
PR: Senior Economics major in final semester. Capstone course that introduces students to applied economic research. Completion and presentation of major research project required.

ECON 490. Teaching Practicum. 1-3 Hours.
PR: Consent. Teaching practice as a tutor or assistant.

ECON 491. Professional Field Experience. 1-18 Hours.
PR: Consent. (May be repeated up to a maximum of 6 hours.) Prearranged experiential learning program, to be planned, supervised, and evaluated for credit by faculty and field supervisors. Involves temporary placement with public or private enterprise for professional competence development.

ECON 493. Special Topics. 1-6 Hours.
PR: Consent. Investigation of topics not covered in regularly scheduled courses.

ECON 494. Seminar. 1-3 Hours.
PR: Consent. Presentation and discussion of topics of mutual concern to students and faculty.

ECON 495. Independent Study. 1-6 Hours.
Faculty supervised study of topics not available through regular course offerings.

ECON 496. Senior Thesis. 1-3 Hours.
PR: Consent.

ECON 497. Research. 1-6 Hours.
Independent research projects.

ECON 498. Honors. 1-3 Hours.
PR: Students in Honors Program and consent by the honors director. Independent reading, study or research.