#### **ECONOMICS**

Michelle Potter-Bacon, Holland Hall 317 507-786-3149 potter4@stolaf.edu wp.stolaf.edu/economics

Economics is the study of how people and organizations make decisions, how they interact with each other, and how institutions and policies can be designed to improve people's lives. The ambition of those who study economics is to understand the world around them both as it is and as it ought to be. The basic principles of economics are applied to a wide range of social and political challenges that confront us today. These include international trade, environmental protection, health care, international development, domestic taxes, Federal Reserve policies, labor outsourcing, and the regulation of business.

The Department of Economics seeks to create an inclusive and diverse teaching and learning community that provides students with varied opportunities for acquiring the necessary knowledge, analytical skills, and judgment to prepare them for personal and professional growth and for confident and responsible leadership in a rapidly changing world.

The department encourages students:

- To learn about the economic, commercial, and governmental institutions that serve the American and international communities
- 2. To be competent in economic and statistical analysis
- To be cognizant of historical, global, and moral perspectives on economic and business issues.

## Overview of the Majors in Economics and Quantitative Economics

The department offers students two majors in the field of economics: (1) Economics and (2) Quantitative Economics. Either major is appropriate for all students, though students considering graduate study in economics or finance, or those considering careers in economic research, finance, banking, or regulatory affairs are encouraged to consider the major in Quantitative Economics. The Quantitative Economics major requires a higher level of foundational mathematics (linear algebra) and that a student complete two courses that include quantitative research in economics, either advanced mathematical modeling or econometric analysis. However, a student who decides to not complete the higher-level math course or the quantitative research components will still easily complete the requirements for the Economics major. The detailed requirements for both majors are shown on the "Requirements (p. 2)" tab.

The economics curriculum at St. Olaf includes theory, applications, institutional studies, and quantitative analysis. Where possible, economics courses also explore historical developments and ethical concerns.

The department offers areas of emphasis for its majors who desire more focused study in finance, management, and international economics analysis and policy. The department also supports several programs available to students regardless of major: an interdisciplinary concentration in business and management studies, international and study away courses, and internship opportunities.

The economics major serves as excellent preparation for careers in a wide variety of fields, including economic analysis, banking, accounting, consulting, health administration, finance, business management, teaching, and international affairs. The major also provides a solid foundation for students wishing to pursue graduate studies in economics, business, public policy, and law.

# Intended Learning Outcomes for the Major in Economics Intended Learning Outcomes for the Major in Quantitative Economics

#### Distinction

See Academic Honors.

The criteria and guidelines for Distinction in Economics and for Distinction in Quantitative Economics can be found through the Economics Department web page.

## **Special Programs Areas of Emphasis**

Areas of emphasis provide the opportunity for economics and quantitative economics majors to pursue a more extensive and focused program of study beyond the normal major requirements. Courses completed for areas of emphasis are *in addition* to those completed to fulfill requirements for the major, except that ECON 384 Econometrics: Cross-Sectional and Panel Data or ECON 385 Econometrics: Time Series and Forecasting may fulfill a core requirement (when paired with SDS 272) and also count towards an area of emphasis. Otherwise, courses taken to fulfill requirements for an area of emphasis may not also fulfill requirements for either of the majors.

Please see Requirements (p. 2) for more information.

### **Concentrations and Interdepartmental Programs**

The Economics Department participates in international studies programs and encourages its majors to take advantage of study in other countries. The department also participates in several interdisciplinary majors and concentrations, including Asian studies, business and management studies, Latin American studies, statistics, environmental studies, gender and sexuality studies, and the social studies education major.

#### Recommendation for Graduate Study

Students considering graduate work in economics (either Ph.D. or M.A.) are advised to complete the major in quantitative economics, if possible, and to take additional courses in economic analysis, mathematics, and statistics beyond those required for the major. We also recommend that students pursue a significant research experience in economics. Within the major, we recommend that students take additional level III economic analysis courses, one of which should be either Econometrics: Cross-Sectional and Panel Data (ECON 384) or Econometrics: Time Series and Forecasting (ECON 385). We recommend that students choosing the major in economics complete Elementary Linear Algebra (MATH 220) prior to taking ECON 384 or ECON 385 when practical. The following

courses in mathematics, listed in order of importance, are recommended: Multivariable Calculus (MATH 226), Real Analysis I (MATH 244) and Differential Equations I (MATH 230). A concentration in Statistics and Data Science is helpful, but the most useful statistics courses for graduate study are Statistics 2 (SDS 272) and Advanced Statistical Modeling (SDS 316). A significant research experience gained through participation in a research practicum, Directed Undergraduate Research (ECON 396), the Center for Interdisciplinary Research (CIR), or a statistically related CURI project is also recommended. Finally, the American Economic Association provides additional information for undergraduate students interested in graduate work in economics here.

#### Requirements Requirements for the Economics Major

Majors in economics must meet the following minimum requirements:

<b>Code</b> Core courses: 1	Title	<b>Credits</b> 3.00-4.00
ECON 261	Intermediate Macroeconomic Theory	
ECON 262	Intermediate Microeconomic Theory	
Select one of the	following:	
ECON 260	Introductory Econometrics	
STAT 272 & ECON 384	Statistics 2 and Econometrics: Cross- Sectional and Panel Data <sup>2</sup>	
STAT 272 & ECON 385	Statistics 2 and Econometrics: Time Series and Forecasting <sup>2</sup>	
At least four economic analysis courses: at least one at level II and at least two at level III. <sup>4</sup>		4.00
Foundation course:		1.00
MATH 120	Calculus I (or equivalent or higher credit)	
or MATH 119	Calculus I with Review	
Total Credits		8-9

1

Core courses -- ECON 261 and ECON 262; and ECON 260, or STAT 272 plus ECON 384, or STAT 272 plus ECON 385 -- all require an introductory course and calculus (usually ECON 121 and MATH 120). Core courses cannot be taken S/U. The department does not accept transfer credit for core courses.

2

Students who take STAT 272 instead of ECON 260 must complete either ECON 384 or ECON 385. When taken to complete the core requirement, ECON 384 and ECON 385 may simultaneously fulfill the requirements for economic analysis or requirements for an area of emphasis.

3

Four economic analysis courses, at least two at Level III and at least one at Level III are required. A student may not count both ECON 384 and ECON 385 as economic analysis courses towards the major in quantitative economics. Economic analysis courses are those ECON courses numbered 200-249, 370-385, and 399.

4

While certain courses may fulfill multiple roles, Level III Economics courses may not be double counted as both an Area of Emphasis *and* a Level III elective (Analysis).

Students studying abroad or away, through St. Olaf affiliated programs or at other accredited colleges and universities, may count up to two off-campus courses as level II economic analysis courses towards the economics major requirements. These courses must be approved in advance by the chair of the Economics Department. To count towards the economics major, courses must (a) be in recognized fields in economics, (b) require at least Principles of Economics (ECON 121) (or its equivalent) as a prerequisite, and (c) be taught in an economics program or by faculty from an economics program. Students may not count both a St. Olaf economic analysis course and a course taken off campus towards the major if the courses are substantially the same.

\*By completing this major, the student also satisfies the OLE Core Writing in the Major requirement.

## Requirements for the Quantitative Economics Major

Code Core courses: 1	Title	<b>Credits</b> 3.00-4.00
ECON 261	Intermediate Macroeconomic Theory	3.00 1.00
ECON 262	Intermediate Microeconomic Theory	
Select one of the follo	owing:	
ECON 260	Introductory Econometrics	
STAT 272 & ECON 384	Statistics 2 and Econometrics: Cross- Sectional and Panel Data <sup>2</sup>	
STAT 272 & ECON 385	Statistics 2 and Econometrics: Time Series and Forecasting <sup>2</sup>	
Four economic analysis courses, at least one at Level II and at least two at Level III <sup>3, 4</sup>		4.00
Foundation Course:		1.00
MATH 220	Elementary Linear Algebra	
Quantitative Researc 0.0 credits) <sup>5</sup>	h Experience: (two experiences,	0
Total Credits		8-9

1

Core courses -- ECON 260, ECON 261, and ECON 262 -- all require an introductory economics course and calculus (usually ECON 121 and MATH 120). Core courses, including STAT 272, may not be taken S/U. The department does not accept transfer credit for core courses.

5

#### 2

Students who take STAT 272 instead of ECON 260 must complete either ECON 384 or ECON 385. When taken to complete the core requirement, ECON 384 and ECON 385 may simultaneously fulfill the requirements for economic analysis or requirements for an area of emphasis.

3

Four economic analysis courses, at least two at Level III and at least one at Level III are required. A student may not count both ECON 384 and ECON 385 as economic analysis courses towards the major in quantitative economics. Economic analysis courses are those ECON courses numbered 200-249, 370-385, and 399.

4

While certain courses may fulfill multiple roles, Level III Economics courses may not be double counted as both an Area of Emphasis *and* a Level III elective (Analysis).

5

Students must complete two courses in economics designated as Quantitative Research (QR) courses. The QR designation indicates that the course includes a substantial research component that involves advanced mathematical and/or econometric modeling. These can be courses taken to satisfy requirements for the major, to fulfill requirements for an area of emphasis, or as general electives.

\*By completing this major, the student also satisfies the OLE Core Writing in the Major requirement.

#### **Areas of Emphasis**

Students majoring in economics or quantitative economics may also complete one or two of the four Areas of Emphasis that the Economics Department offers. There are two economics areas of emphasis: international economic analysis and policy and law and public policy, and there are two management areas of emphasis: management and finance.

If a student elects to combine an economics or quantitative economics major with one or two emphases the student may select only one of the following: a management emphasis, a finance emphasis, a law and public policy emphasis. The international economics and policy emphasis or the law and public policy emphasis may be combined with the management emphasis, the finance emphasis.

Economics students cannot complete a management or a finance emphasis *and* a business and management concentration.

Grades of C or better must be earned in all courses counted toward an area of emphasis.

Contracts for each area of emphasis must be negotiated individually with the assigned area director before the end of the student's junior year. Copies of contracts can be found on the Economics Department web page. Please contact the Economics Department for the names of the current area directors.

Courses counted toward an area of emphasis may not also be counted toward any requirements for the economics major.

## International Economic Analysis and Policy Emphasis

The purpose of the International Economic Analysis and Policy emphasis is to provide a structured program of study beyond the major, so that students will expand their understanding of the international economy, and be better prepared for careers in the private and public sectors.

Code	Title	Credits
ECON 343	Development Economics	1.00
ECON 382	International Economics	1.00
Off-campus economic analysis course approved by the emphasis director		
Elective course outside of Economics Department that relates to international topics		1.00

Total Credits 4

#### **Management Emphasis**

The purpose of the management emphasis is to provide a structured program of study beyond the economics major to better prepare students for immediate careers in the private and public sectors of our economy.

Code	Title	Credits
Required courses:		
BUS 225	Principles of Accounting	1.00
BUS 237	Managerial Accounting	1.00
BUS 251	Management	1.00
BUS 383	Management Policy and Strategy	1.00
Choose one of the	following electives:	1.00
BUS 201	Organizational Storytelling	
BUS 250	Marketing	
BUS 252	Legal Aspects of Business	
BUS 260	Innovation in New Zealand (study abroad)	
BUS 266	Business Modeling in Excel	
BUS 268	Design Thinking & Entrepreneurship	
BUS 281	Corporate Finance	
Other BUS course (to	o be negotiated)	

#### **Finance Emphasis**

**Total Credits** 

The purpose of the finance area of emphasis is to provide a structured program of study beyond the economics major to better prepare students for immediate careers in the private and public sectors of our economy.

Code	Title	Credits
Required courses:		
BUS 225	Principles of Accounting	1.00
BUS 237	Managerial Accounting	1.00
BUS 281	Corporate Finance	1.00
BUS 380	Investments	1.00

**Total Credits** 

Choose one of the	following elective options:	1.00
BUS 250 & BUS 251	Marketing and Management	
•	d BUS 251 must be taken to or choose one of the courses	
BUS 252	Legal Aspects of Business	
BUS 260	Innovation in New Zealand (study abroad)	
BUS 266	Business Modeling in Excel	
BUS 268	Design Thinking & Entrepreneurship	
ECON 248	Money and Banking	
ECON 372	Behavioral Economics	
ECON 382	International Economics	
ECON 385	Econometrics: Time Series and Forecasting	
Other BUS or ECON	course (to be negotiated)	

#### Law and Public Policy Emphasis

To be awarded an area of emphasis in law and public policy, students must (1) complete a major in economics or quantitative economics; and (2) successfully complete four additional courses, chosen from the list below. A grade of C or above is required for all courses in the area of emphasis.

All students pursuing an area of emphasis in law and public policy must take Econ 240: Introduction to Law and Economics, two economic analysis courses at the 200-level or 300-level with an applied law or policy component and a law or policy focused course outside of the economics department.

Code	Title	Credits
Required courses:		
ECON 240	Introduction to Law and Economics	1.00
Choose two of the	following:	2.0
ECON 200	Topics in Economic Analysis (Approved depending on the topic.)	
ECON 242	Environmental Economics	
ECON 245	Economics of Health Care	
ECON 371	Economics of Public Policy	
ECON 376	Labor Economics and Employment Relations	
ECON 378	Comparative Economic Analysis of Legal Systems	
ECON 380	American Economic History	
Choose one of the	following:	1.0
BUS 252	Legal Aspects of Business	
ENVST 232	Environmental Policy and Regulation	
PACON 180	Public Affairs I: Foundational Debates	

T	otal Credits		4
	SWRK 258	Social Policy	
	PSCI 285	International Law	
	PSCI 272	American Constitutional Law: Power	
	PSCI 246	Introduction to Public Policy	
	PHIL 254	Law, Politics, and Morality	
	PACON 181	Public Affairs II: Contemporary Controversies	

## Courses Introductory Courses ECON 110-ECON 120 Gateways to Economics

These courses introduce students to principles of economics through special topics. Each course emphasizes the application of economic concepts to topics of general interest, capitalizing on the special interests and expertise of the faculty. Courses numbered 110-120 all present a common core of economic principles, and, therefore, credit will be given for only one of these courses. Courses numbered 110-120 cannot be taken after taking ECON 121. Students may only take one course from among 110-120; none of these courses may be repeated. Students considering a major in economics are encouraged to take Principles of Economics (ECON 121), below.

#### ECON 113: Gateways to Economics: Capitalism

This course uses major schools of economic thought and major economic writers from the past 600 years to introduce principles of economics. Readings include the architects of capitalism (Adam Smith, David Ricardo, etc.), the critics (Karl Marx, Thorstein Veblen, etc.), and the reformers (J.M. Keynes, Joseph Schumpeter, J.K. Galbraith, etc.). Offered periodically during January Term.

#### **Principles of Economics**

Students considering a major in economics are encouraged to complete Principles of Economics (ECON 121) prior to taking any economics courses at level II or above.

#### **ECON 121: Principles of Economics**

This course takes an analytical approach to economic reasoning and contemporary issues. The course introduces microeconomic and macroeconomic theories with applications to relevant topics, such as employment, growth, environmental protection, affirmative action, exchange rate fluctuations, taxes, and welfare reform. Students explore economics as an intelligent approach to understanding our daily lives as citizens, workers, managers and consumers. Offered each semester. This course does NOT count toward the economics major, but is the prerequisite for all higher-level economics courses. Also counts toward environmental studies major (social science emphasis) and business and management studies concentration.

#### **Core Courses**

#### **ECON 260: Introductory Econometrics**

This course emphasizes skills necessary to understand and analyze economic data. Topics include descriptive statistics, probability and random variables, sampling theory, estimation and hypothesis testing, and practical and theoretical understanding of simple and multiple regression analysis. Applications to economic and business problems use real data, realistic applications, and econometric/ statistical software. Offered each semester. ECON 260 is required for economics majors who do not take both SDS 272 and either ECON 384 or ECON 385. Credit toward the economics major will not be given for ECON 260 following completion of SDS 272. Also counts toward environmental studies major (social science emphasis) and public health studies concentration.

**Prerequisite:** MATH 119 or MATH 120 and one of ECON 110 - ECON 121, or permission of instructor.

#### **ECON 261: Intermediate Macroeconomic Theory**

This course addresses the economic institutions and forces that determine levels of income, output, employment, and prices in our society. Questions related to employment prospects and standard of living provide an important focus. Classical and Keynesian perspectives are employed in attempting to understand these matters, the macroeconomic problems in market economies and the policies that economists prescribe as remedies for these problems. Offered each semester. Also counts toward international relations concentration. **Prerequisites:** MATH 119 or MATH 120, and one of ECON 110-121 or permission of instructor.

#### **ECON 262:** Intermediate Microeconomic Theory

Microeconomics is the study of the resource allocation decisions by households, producers, and government and the resource allocation process in various types of market structures. Students are trained in the use of economic models and optimizing techniques to address a variety of real-world problems, including case studies from business and public policy. Offered each semester.

**Prerequisites:** MATH 119 or MATH 120, and one of ECON 110-121 or permission of instructor.

#### **Economic Analysis Courses, Level II**

#### **ECON 200: Topics in Economic Analysis**

In this course students apply the models, insights, and analytical techniques of economics to a specific topic or economic problem. Topics vary from year to year. May be repeated if topic is different. Offered periodically.

**Prerequisites:** one of ECON 110-121 or permission of instructor.

#### **ECON 222:** Game Theory in Economics

Game theory is the formal study of the strategic interactions between individuals and between groups of individuals. Game theory has become a widely adopted tool of analysis in economics, business, law, politics, anthropology, sociology, and international relations. This course introduces students to the theoretical constructs of game theory and focuses on economic applications in the fields of labor economics, international trade, environmental economics, macroeconomics, and industrial organization. Offered annually. **Prerequisite:** one of ECON 110-121 or permission of instructor.

#### **ECON 240: Introduction to Law and Economics**

This course applies standard microeconomic theory and concepts to understand the law and the legal system. There are two primary approaches to "Law and Economics." The first uses economics to understand how changes in legal rules affect human behavior. The second uses economics to explain the structure and variation of the legal rules themselves. This is an introductory course to the economics of law aimed at introducing students to both approaches. Offered annually.

**Prerequisite:** one of ECON 110-121 or permission of the instructor.

#### **ECON 241: Contemporary Issues in Macroeconomics**

This course applies the tools of economic theory to contemporary macroeconomic issues in the U.S. and the world economy. Topics include inflation, economic growth, unemployment, recessions, financial crisis; the labor market, income inequality; the role of fiscal and monetary policy in stabilizing the economy, and macroeconomics of pandemics. Students learn how to write policy papers and engage in macroeconomic policy debates. Students are also introduced to Dynamic Stochastic General Equilibrium (DSGE) Models.

**Prerequisite:** one of ECON 110-121 or permission of instructor.

#### **ECON 242:** Environmental Economics

The powerful insights of microeconomic analysis inform this consideration of environmental policy and regulation. Coursework emphasizes issues germane to setting and attaining specific environmental objectives - how much pollution to allow, how much to encourage preservation, how much cutting to permit. By considering whether and how to assign monetary values to goods like species diversity and climactic stability, students gain practical experience applying benefit-cost analysis to environmental decisions. Offered annually. Also counts toward environmental studies major (all emphases) and concentration.

**Prerequisite:** one of ECON 110-121 or permission of instructor.

#### **ECON 245: Economics of Health Care**

The health care sector in the U.S. is undergoing rapid change that affects patients, providers and payers. Managed care and managed competition are restructuring the delivery of health care services and reducing costs, while frustrating physicians and patients. The course examines the economic factors leading to the changes, current issues and controversies, and federal health policies. Students interested in nursing, medicine, and the sciences are encouraged to enroll. Offered annually. Also counts toward public health studies concentration. **Prerequisites:** one of ECON 110-121 or permission of instructor.

#### **ECON 248: Money and Banking**

This course addresses the institutions that comprise modern monetary systems and the influence that these systems have on levels of income, output, employment, and prices in market economies. It addresses in detail monetary theory and monetary policy, including both the nature of our central bank and the role that it plays in our monetary system.

**Prerequisite:** One of ECON 110-121 or permission of instructor.

#### **Economic Analysis Courses, Level III**

#### **ECON 343: Development Economics**

This course provides a global perspective on economic development and introduces students to analytic tools that empower them to investigate causes of, and potential solutions to, underdevelopment. Students further develop and apply their learning in the context of a specific country of their choosing, about which they research and write throughout the semester. Counts toward Quantitative Research requirement for the Quantitative Economics major.

**Prerequisites:** ECON 261 and ECON 262 and one of ECON 260 OR (SDS 272 and ECON 384) OR (SDS 272 and ECON 385).

#### **ECON 371: Economics of Public Policy**

Government action affects us all. We pay taxes; we use public roads, schools, and parks. Some prices we pay are lower due to government subsidies; others are higher due to taxes. Government actions influence both the efficiency of our economy and the equity and equality within our society. Students learn valuable analytical tools for evaluating public projects, tax policies, entitlement programs and voting behavior. Offered annually.

**Prerequisite:** ECON 262 and one of ECON 260, ECON 263, or SDS 272; or permission of instructor.

#### **ECON 372: Behavioral Economics**

Classic economics assumes that people make decisions rationally. Behavioral economics weakens that assumption, incorporating the findings of psychology into economic models. Students learn to apply behavioral economics theories to improve their understanding of business, marketing, public policy, and other domains of economics. Students utilize skills they have learned from microeconomic theory and statistics orally and in writing. Offered annually.

**Prerequisites:** ECON 262 and one of ECON 260 or ECON 263 or SDS 272, or permission of instructor.

#### **ECON 376: Labor Economics and Employment Relations**

What do workers want from work? What do employers want from workers? Pressing policy issues exist for workers competing in the global economy. Unions, unemployment insurance, welfare and the minimum wage enhance the prospects of many, while leaving others even worse off. This course utilizes microeconomic theory, statistics and institutional analysis to understand labor markets. Offered annually.

**Prerequisites:** ECON 262 and one of ECON 260 or ECON 263 or SDS 272.

#### ECON 377: Digital Industries: Platforms, Social Media and Blockchain

This course reviews the economic properties of modern digital economies. This includes the study of platform economics, network effects, blockchain economics, zero-marginal-cost industries, the economics of data, markets for information, tech monopoly power, regulatory capture, cross-industry collusion and mechanism design. The economics of data includes discussion of nonrivalry, data as labor and the economic effects of privacy and anonymity. A semester-long research paper involves building a mechanism design model to analyze a particular digital industry.

**Prerequisites:** ECON 260, ECON 261 and ECON 262.

#### ECON 378: Comparative Economic Analysis of Legal Systems

This course explores legal systems vastly different from that in the United States and uses economic analysis to understand both the reasons for the peculiarities and their relative success or failure. The objective of this course is to deepen students' understanding of the basic economic principles used to analyze legal institutions and to teach them how to apply economic concepts to important contemporary and historical topics. Offered annually.

**Prerequisites:** ECON 262 and one of ECON 260 or ECON 263 or SDS 272, or permission of instructor.

#### **ECON 380:** American Economic History

This course focuses on the development of the U.S. economy since colonial times and the contributions and limitations of economic analysis and quantitative methods in understanding the economy's evolution. The course explores how economic analysis illuminates past trends and events, and how the historical record can further our understanding of economic principles, theory, and current economic problems. Course topics include colonialism, slavery, industrialization, the economic effects of wars, and the Great Depression.

**Prerequisites:** ECON 261 and/or ECON 262 (at the discretion of the instructor) and one of ECON 260 or ECON 263 or SDS 272, or permission of the instructor.

#### **ECON 382: International Economics**

This course offers students an integrated approach of theory, policy, and enterprise to understand international trade and investment. The course focuses on the costs and benefits of global economic interdependence for students who plan to enter an international business career or to work for government and international organizations in activities affected by international economic relations. Offered annually. Also counts toward international relations concentration

**Prerequisites:** ECON 261 and ECON 262, and one of ECON 260 or ECON 263 or SDS 272, or permission of instructor.

#### **ECON 383: Network Economics**

This course explores the nature and dynamics of connections that exist between economic agents like firms, banks, countries, and individuals. How do loans between banks cause recessions? How do high schools look to their peers for policy ideas? How does misinformation spread on social media? Students will use economic theory as well as economic data to answer these questions and more. Offered annually in the spring semester.

Prerequisites: ECON 260, ECON 261, and ECON 262.

#### **ECON 384: Econometrics: Cross-Sectional and Panel Data**

This course emphasizes theoretical foundations, mathematical structure, and applications of major econometric techniques appropriate for cross-sectional and panel data. Topics to be covered include generalized least squares, dummy variables, non-linear models, instrumental variables techniques, fixed- and random-effects models, and limited dependent variable models. This course is recommended for students interested in analysis of issues in microeconomics and public policy. Offered annually. ECON 384 and ECON 385 may not both be used to satisfy the economic analysis requirements for either the economics or quantitative economics major.

**Prerequisite:** ECON 262 and one of ECON 260, ECON 263, or SDS 272; or permission of instructor.

#### **ECON 385: Econometrics: Time Series and Forecasting**

This course emphasizes the theoretical foundations, mathematical structure, and applications of major econometric techniques appropriate for time-series data. Topics covered include generalized least squares, single-equation time-series models, multi-variable time-series models, forecasting and forecast evaluation, and seasonality. This course is recommended for students interested in analysis of issues in macroeconomics and finance. Offered annually. ECON 384 and ECON 385 may not both be used to satisfy the economic analysis requirements for either the economics or quantitative economics major. Completion of MATH 220 may be helpful but is not required. **Prerequisites:** ECON 261 and one of ECON 260 or ECON 263 or SDS 272; or permission of instructor.

#### **ECON 393: The Economic Writing Process**

Students have the opportunity to follow through on a project that they began in one of their 300-level economic analysis elective courses. Students gain hands-on experience in economic writing by turning a draft of this economics research paper into a complete journal article. They learn about the writing process, develop strong writing habits, prepare compelling data visualizations, and incorporate feedback from peers and experts in their areas of interest. Offered alternate years during January term.

**Prerequisites:** ECON 260, ECON 261, and ECON 262, and any 300-level Economic Analysis elective.

#### **ECON 399: Seminar in Economics**

Selected topics to be announced. May be repeated if topics are different.

**Prerequisites:** ECON 261 and/or ECON 262 (at the discretion of the instructor) and one of ECON 260 or ECON 263 or SDS 272, or permission of instructor.

#### Other Courses

ECON 294: Academic Internship

**ECON 298: Independent Study** 

**ECON 394: Academic Internship** 

#### **ECON 396: Directed Undergraduate Research**

This course provides a comprehensive research opportunity, including an introduction to relevant background material, technical instruction, identification of a meaningful project, and data collection. The topic is determined by the faculty member in charge of the course and may relate to their research interests. Offered based on department decision. May be offered as a 1.00 credit course or .50 credit course. **Prerequisite:** determined by individual instructor.

**ECON 398: Independent Research** 

#### Courses that Count Toward the Quantitative Research (QR) Experience

The following courses carry the quantitative research (QR) designation for students pursuing the major in Quantitative Economics. These courses remain open to all students who have completed the prerequisites.

**ECON 343 Development Economics** 

ECON 371 Economics of Public Policy

**ECON 372 Behavioral Economics** 

ECON 376 Labor Economics and Employment Relations

ECON 377 Digital Industries: Platforms, Social Media and Blockchain

**ECON 382 International Economics** 

ECON 384 Econometrics: Cross-Sectional and Panel Data

ECON 385 Econometrics: Time Series and Forecasting

In addition, some sections of ECON 396 Directed Undergraduate Research and ECON 399 Seminar in Economics will be designated as QR depending on the topic and requirements of the instructor.

#### **Related Courses**

For courses in finance, management, and accounting, please see the Business and Management Studies section of this catalog.

#### Econ and Quant Econ Plans of Study Economics Major - Plan of Study

This is a sample plan that meets the prescribed requirements for the Economics major at St. Olaf. This tool is meant as a guide and does not replace working closely with the student's academic advisor.

Course	Title	Credits
First Year		
Fall Semester		
FYS 120 or WRIT 120	First-Year Seminar (or Conversation Program) or Writing and Rhetoric	1.00
ECON 121	Principles of Economics	1.00
MATH 119 or MATH 120	Introduction to Calculus or Calculus I	1.00
World Language		1.00
	Credits	4
January Term		
MATH 120 or ECON 121	Calculus I or Principles of Economics	1.00
	Credits	1
Spring Semester		
WRIT 120 or FYS 120	Writing and Rhetoric (or Conversation Program) or First-Year Seminar	1.00
ECON 260	Introductory Econometrics (pending completion of MATH 120; or Level II Econ Analysis (ECON 2XX-249))	1.00
World Language		1.00
	Credits	3
Sophomore Year		
Fall Semester		
ECON 260	Introductory Econometrics (if not already taken)	1.00
	Credits	1
Spring Semester		
ECON 261	Intermediate Macroeconomic Theory	1.00
	Credits	1
Junior Year		
Fall Semester		
ECON 262	Intermediate Microeconomic Theory	1.00
ECON 2XX		1.00
	Credits	2
Spring Semester		
ECON 2XX or ECON 3XX		1.00
	Credits	1

# Senior Year Fall Semester ECON 3XX 1.00 Credits 1 Spring Semester 1.00 ECON 3XX 1.00 Credits 1 Total Credits 15

## **Quantitative Economics Major - Plan** of Study

Course	Title	Credits
First Year		
Fall Semester		
FYS 120	First-Year Seminar (or Conversation Program)	1.00
or WRIT 120	or Writing and Rhetoric	
ECON 121	Principles of Economics	1.00
MATH 119 or MATH 120	Introduction to Calculus or Calculus I	1.00
World Language		1.00
	Credits	4
January Term		
MATH 120 or ECON 121	Calculus I (or ECON 113) or Principles of Economics	1.00
	Credits	1
Spring Semester		
WRIT 120	Writing and Rhetoric (or Conversation Program)	1.00
or FYS 120	or First-Year Seminar	
World Language		1.00
ECON 260	Introductory Econometrics (pending completion of MATH 120; or Level II Econ Analysis (ECON 2XX-249))	1.00
	Credits	3
Sophomore Year		
Fall Semester		
ECON 260	Introductory Econometrics (if not already taken)	1.00
MATH 220	Elementary Linear Algebra	1.00
	Credits	2
Spring Semester		
ECON 261	Intermediate Macroeconomic Theory	1.00
ECON 2XX		1.00
	Credits	2
Junior Year		
Fall Semester		
ECON 262	Intermediate Microeconomic Theory	1.00
ECON 2XX or ECON 3XX		1.00
	Credits	2
Spring Semester		
ECON 2XX or ECON 3XX		1.00
	Credits	1
Senior Year		
Fall Semester		
ECON 3XX		1.00
ECON 3XX (QR Requirem	ent)	1.00
	Credits	2
Spring Semester		
ECON 3XX		1.00
ECON 3XX (QR Requirem	ent)	1.00
	Credits	2
	Total Credits	19

Students must successfully complete the equivalent of 35 St. Olaf credits through a combination of full-credit and fractional-credit courses to earn the Bachelor of Arts.

Visit the Economics department webpage for more information.

#### **Quantitative Plan of Study**

The economics curriculum at St. Olaf includes theory, applications, institutional studies, and quantitative analysis. Where possible, economics courses also explore historical developments and ethical concerns.

#### **Faculty**

#### Department Chair, 2024-2025 Allison O. Luedtke

Associate Professor of Economics

#### **Marcus Bansah**

**Assistant Professor of Economics** 

#### **Kelsey Baumann**

Visiting Instructor of Economics

#### **Anthony Becker**

Professor of Economics

econometrics; forecasting; economic damages; microeconomic theory; public policy

#### Seth I. Binder

Associate Professor of Economics and Environmental Studies environmental and natural resource economics and policy; development economics; sustainable development

#### **Noah Braun**

Visiting Assistant Professor of Economics

Sian E. Christie (on sabbatical spring semester 2024-25)

Entrepreneur in Residence; Husby-Johnson Endowed Chair of Business and Economics

marketing; entrepreneurship; strategy; organizational storytelling

#### Malabi Dass

Visiting Assistant Professor of Economics

#### Beryl (Alli) Esther

Visiting Assistant Professor of Economics

Colin Harris (on sabbatical 2024-25)

Tomson Family Chair of Law and Economics

#### **Kulsoom Hisam**

**Assistant Professor of Economics** 

#### Ashley R. Hodgson (on sabbatical 2024-25)

Frank Gery Associate Professor of Economics

health care economics; behavioral economics; microeconomic theory; public policy; industrial organization

#### **Adam Kaiser**

Visiting Instructor of Economics

#### **Claudia Klug**

Adjunct Instructor of Economics

#### **Ahmad Shah Mobariz**

Visiting Professor of Economics

#### Urbashi Mookerjee

Visiting Assistant Professor of Economics

#### **Shawn Osell**

Visiting Assistant Professor of Economics

**Naafey Sardar** (Program Director of Public Health Studies - spring semester 2024-25) Assistant Professor of Economics

#### Mark Skeba

Adjunct Instructor of Economics

#### **Michael Wilson**

Visiting Professor of Economics