Master of Arts—Economics
Christopher B. Colburn, Graduate Program Director

Economics is “the social science concerned with how individuals, institutions, and society make optimal choices under conditions of scarcity.” This is a broad field, covering everything from unemployment and inflation to stock market crashes and depressions, from perfect competition among firms to oligopoly and monopoly. Microeconomics studies firms, consumers, goods markets, resource markets, labor markets, and the price system. It gives recommendations about how to deal with pollution and auctions of the electromagnetic spectrum. Macroeconomics studies unemployment, inflation, money supplies, interest rates, exchange rates, national debt, and economic growth. Economics is concerned with the problems of incentives, wealth, poverty, and income distribution. Subfields include microeconomics, macroeconomics, econometrics, labor economics, public economics, regional economics, environmental economics, development economics, economic history, health economics, sports economics, financial economics, the economics of education, the economics of crime, comparative economics, international economics, transportation economics, urban economics, industrial organization, and money and banking.

Economics is very important for the formulation of public policy, business strategies, and financial strategies. Economics is very quantitative. In the Master of Arts in Economics program, students will develop strong mathematical and statistical skills, as well as learn about how the economy works. Economists do economic analysis, make economic and econometric models of the economy, formulate economic policy, make business strategies, forecast economic variables, and do benefit-cost analysis.

Economics provides a good background for jobs in business, banking, finance, marketing, law, government, politics, military, diplomacy, and journalism. Our graduates typically find economics positions in banks and firms, go to work in government, teach economics at community colleges, or enter MBA or Ph.D. programs in Economics and Finance.

The Old Dominion University Department of Economics is especially strong in regional economics, international economics, and econometrics. The department is the home of the Hampton Roads Regional Economic Forecasting Project and the State of the Region Report. Our MA students are often involved in these projects.

If taken full time, the MA in Economics program can be easily completed within 21 months. At a faster pace, the program can be completed in as little as 16 months. Alternatively, the program can be completed attending part-time, but more time will be required.

If one was not an undergraduate economics major, certain prerequisites must be completed before starting the advanced courses. One must have had courses in calculus, statistics, intermediate microeconomics, and intermediate macroeconomics. These courses may be completed here at Old Dominion prior to taking the MA program core courses.

The Master’s degree (MA) program in Economics is more intensive than the Bachelor’s degree (BA/BS) in Economics. The MA courses study economics at a deeper level than in the undergraduate courses, and are more mathematical. Graduate students must maintain a grade point average of 3.0 or better. All students in the program are trained in economic theory and research methods, and take several courses emphasizing business or government policy analysis in various specialty areas. An independent research project is required, permitting students an opportunity to apply theory and empirical research techniques to real-world problems.

The Department of Economics encourages interdisciplinary training. The Master’s program can be adapted for students desiring a diverse background by combining economics with graduate courses in sociology, political science, computer science, statistics, mathematics, finance, management, marketing research, or public administration.

Admission
In addition to the University’s graduate admission requirements, applicants seeking regular admission must have at least a 3.0 grade point average in their major. Applicants are required to take either the Graduate Record Examination (GRE) or the Graduate Management Admission Test (GMAT), and they must submit at least one letter of recommendation. If the undergraduate grade point average falls below that required for regular status, applicants may qualify for provisional admission.

Requirements
Undergraduate prerequisites include principles of economics, calculus (three credit hours), statistics (six credit hours), intermediate microeconomics, and intermediate macroeconomics with grades of at least B-. Students who do not yet meet the undergraduate prerequisites can complete those courses at Old Dominion University before taking the advanced courses.

Thirty semester credit hours (ten courses) of approved graduate work are required for the award of the Master of Arts degree in economics. A maximum of six credit hours of 500-level courses approved for graduate credit may be applied toward the degree. The remaining courses must be taken from 600- and/or 700-level courses. Up to six credit hours (two courses) of electives (approved by the graduate program director) may be taken from courses outside the Department of Economics. Required core economics courses for the graduate program are:

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<tr>
<th>Course Code</th>
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<th>Hours</th>
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<tr>
<td>ECON 625</td>
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<td>3</td>
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<tr>
<td>ECON 701</td>
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<td>ECON 706</td>
<td>Econometrics I</td>
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<td>Total Hours</td>
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All master’s candidates must pass written comprehensive examinations in Microeconomics, Econometrics, I, and one elective course area selected by the student.

Writing skills commensurate with the level of this degree are also a requirement for graduation from this program.

Near the completion of formal course work, candidates conduct independent research projects with the non-thesis or thesis option. Students who choose the non-thesis option register for ECON 697 and ECON 698 in the last semesters of course work. Non-thesis students conduct independent research projects under the guidance of a department faculty member. Students must first register for ECON 697, a reading course under the supervision of a faculty member, for three credits, and then register for ECON 698, the research project writing course, also under the supervision of a faculty member, for three credits.

Students who choose the thesis option should register for ECON 699 in the final semester. Six hours of credit are given for this course. The thesis is guided and approved by the committee of at least three members of the department. Detailed instructions, requirements, and deadlines are contained in the guide for Preparation of Theses and Dissertations, available from The Graduate School's web site, http://www.odu.edu/graduateschool.

Required Courses – Economics

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<tr>
<td>ECON 706/806</td>
<td>Econometrics I</td>
<td>3</td>
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<td>ECON 697</td>
<td>Readings in Economics</td>
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<td>ECON 698</td>
<td>Economic Methodology and Research</td>
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ECONOMICS COURSES

ECON 502. Transportation Economics. 3 Credits.
A survey of the transportation system in the United States including its development, pricing, and regulation. Special attention is given to railroads, highways, pipeline, water and air transportation; and the roles that these modes of transportation play in economic development.

ECON 507. Labor Market Economics. 3 Credits.
An economic analysis of various facets of labor markets. Emphasis is placed on the analysis of labor supply, labor demand, wage determination, earnings differentials and inequality, occupational choice, human capital investment, labor market discrimination, mobility and immigration, impact of unions, and unemployment.

ECON 521. Public Economics. 3 Credits.
This course examines the interaction between government and the economy, with particular emphasis on the role of the federal government. Topics that address the motivation for government involvement in the economy include market failure, income inequality, and redistribution of income. Specific programs studied include Medicare/Medicaid, welfare programs, and the social security system.

ECON 525. Introduction to Mathematical Economics. 3 Credits.
The course focus is on the use of differential and integral calculus, matrix algebra, difference equations and classical optimization theory in the presentation and development of economic theory.

ECON 527. Industrial Organization and Public Policy. 3 Credits.
A study of market structures and the conduct and performance of business firms in different market structures. The emphasis is on the theory and measurement of industrial concentration and public policy responses to industrial concentration.

ECON 531. Money and Banking. 3 Credits.
Examines the nature and functions of money and credit, the commercial banking system, the Federal Reserve System, the quantity theory of money, the theory of income determination, the balance of payments and exchange rates, and the history of monetary policy in the United States.

ECON 535. Health Economics: A Global Perspective. 3 Credits.
This course introduces the student to the economics of health care and the application of health economics to health care problems, the issues surrounding those problems, and the potential solutions to those problems. The course will emphasize institutional features of the health care industry, the market for health care, the political economy of health care, and government involvement in the delivery of health care. Further, the course will survey the delivery of health care in other countries and provide a global perspective on selected health care issues such as AIDS, water and air quality, and the aging of the population.

ECON 544. Development of the American Economy. 3 Credits.
A study of the economic development of the United States from colonial times to the present. An analytical course concerned with the application of economic theory in the study of the growth and development of the American economy.

ECON 545. Urban Economics. 3 Credits.
An analysis of the economic factors which give rise to the formation of urban centers and which contribute to the following problems: urban poverty, housing conditions, traffic congestion, and the fiscal crisis faced by modern cities.

ECON 547. Natural Resource and Environmental Economics. 3 Credits.
Topics discussed include conservation and scarcity, market failure, fishery management, benefit-cost analysis, water resource development, environmental quality, recreation, energy, and marine resources.

ECON 551. History of Economic Thought. 3 Credits.
A study of the history of economic theory with attention to the economic ideas and philosophy of Adam Smith, David Ricardo, Karl Marx, J.M. Keynes and other major figures in the development of economics.

ECON 554. Economic Development. 3 Credits.
This course is intended to provide an introduction to the problems of economic development in the Third World, including the problems of economic growth, income distribution, poverty, urbanization, uneven development, agricultural policy, economic planning, industrial policy, trade policy, balance of payments, finance, and currency crises. To illustrate these issues we will examine the problems of certain individual countries, such as Brazil, Korea, Philippines, India, Mexico, Kenya, Indonesia, and Thailand. In the course we try to strike a balance between economic theory and institutional economics.

ECON 555. Comparative Economic Systems. 3 Credits.
This course examines and compares different economies from around the world, including such economies as the UK, France, Germany, Sweden, Japan, India, Korea, Russia, and China. Students look at the economic growth, GDP per capita, unemployment, inflation, income distribution, economic efficiency, institutions, policies, industrial structure, legal infrastructure, and international trade of these economies. Students study the functioning of markets and the problems of market and government failure. The course addresses the question, what is the best way to organize society?

ECON 556. Economics of Information, the Internet and E-Commerce. 3 Credits.
Outlines the economic principles of information that underpin the Internet and e-commerce. Considers auctions, economies of scale and scope, data mining, price discrimination, product bundling, versioning, networking, the diffusion of innovations and intellectual property as they are utilized on the Internet and in e-commerce. Taught in a microcomputer laboratory.

ECON 595. Selected Topics in Economics. 1-3 Credits.
Taught on an occasional basis. A study of selected topics, the title of which will appear in the course schedule. Prerequisites: Permission of the instructor.

ECON 607. Managerial Economics. 2 Credits.
This course introduces the MBA student to the use of economic analysis to aid managerial decision-making. Topics include demand and supply, theory of optimizing behavior, demand elasticity, production, cost analysis and pricing with and without market power. Other topics include an introduction to game theory, alternative pricing techniques and the internal organization of firms. Prerequisites: Admission to the MBA Program, MBA 600, MBA 601, MBA 602, MBA 603, and MBA 604.

ECON 612. Global and Applied Macroeconomics. 3 Credits.
Measurements and indicators of economic activity; short-run macroeconomic analysis, credit markets, demand for money, institutional factors in money and banking, money creation, and monetary policy, long-run macroeconomics, short-run macroeconomic comparative statics, foreign exchange markets; description and history of business cycles, inflation, economic growth and public policies. (Credit may not be applied toward the M.A. in economics.) Prerequisites: ECON 604.

ECON 618. Global Macroeconomics. 2 Credits.
This course examines the measurement of macroeconomic variables and their movements over time. Short-run and long-run models of the macroeconomy are covered along with institutional factors of financial markets. The course mixes theory with real world applicability. Students will examine critical economic policy issues of the day. Prerequisites: Admission to the MBA Program, MBA 600, MBA 601, MBA 602, MBA 603, and MBA 604.

ECON 625. Mathematical Economics. 3 Credits.
This course focuses on the use of mathematical techniques in solving complex economic problems. Primary emphasis is given to matrix algebra, differential calculus, constrained optimization techniques and dynamic optimization techniques. Prerequisites: ECON 604 or ECON 612 or ECON 650.
ECON 650. International Economics. 3 Credits.
An analysis of international trade theory, commercial policy, foreign exchange markets, open economy macroeconomics, and balance of payments. The course provides the theoretical basis to understand contemporary international economic issues. (Credit may not be applied toward the M.A. in economics.)

ECON 668. Economics Internship. 1-3 Credits.
The course is a practicum in the field of economics applying theories, concepts, and quantitative tools in a professional environment. Prerequisites: Twelve hours of economics and permission of the graduate program director.

ECON 695. Selected Topics in Economics. 1-3 Credits.
Advanced topics in economics specifically designed for school teachers. (Credit may not be applied toward the M.A. in economics or the MBA.) Prerequisites: Permission of the instructor.

ECON 696. Selected Topics in Economics. 1-3 Credits.
Advanced topics in economics are covered in this course.

ECON 697. Readings in Economics. 3 Credits.
Individual readings in a selected field under the direction of a faculty member of the department.

ECON 698. Economic Methodology and Research. 3 Credits.
Individual research under the direction of a faculty member of the department.

ECON 699. Thesis. 6 Credits.
Directed research for thesis.

ECON 700. Economic Analytics. 3 Credits.
This course provides the skills necessary to successfully identify, acquire, manage, and analyze economic data. The course primarily focuses on the application of statistical methods in support of economic analysis. During the course, students will (1) develop research hypotheses; (2) identify data to test the hypotheses; (3) utilize coding to access and obtain data, (4) use descriptive statistics to discuss the properties of the data, (5) explore the bivariate least squares estimator, and (6) interpret and present the results of economic analysis.

ECON 701. Advanced Economic Analysis: Microeconomics. 3 Credits.
Concepts and techniques of modern microeconomic theory, development in the theory of utility and demand, theory of the firm and market, partial and general equilibrium analysis. Prerequisites: ECON 604 or equivalent. Pre- or corequisite: ECON 625.

ECON 703. Advanced Economic Analysis: Macroeconomics. 3 Credits.
Study of income, employment, the price level, money, and the effect of government policy under static and dynamic conditions. Mainstream and alternative theories considered. Prerequisites: ECON 612 or equivalent. Pre- or corequisite: ECON 625.

ECON 706. Econometrics I. 3 Credits.
Single-equation econometric models; serial correlation, heteroscedasticity, specification error, missing observations, and errors-in-variables and forecasting. Prerequisites: ECON 604 or equivalent and ECON 612 or equivalent. Pre- or corequisite: ECON 625.

ECON 707. Econometrics II. 3 Credits.
Multi-equation econometric models; problems such as identification, single-equation estimation, estimation of equation systems, and model evaluation techniques; time-series models such as autoregressive and moving average models; forecasting with time-series models. Prerequisites: ECON 706 or equivalent.

ECON 708. Econometrics III. 3 Credits.
Issues in cross-section and panel data, focuses on problems such as selection bias, heterogeneity, unobserved heterogeneity, treatment effects, truncation and censoring. The course covers multivariate techniques such as principal component analysis and factor analysis, along with event studies and nonparametric and semiparametric estimators. Prerequisites: ECON 706 or equivalent.

ECON 752. International Trade. 3 Credits.
Pure theory of international trade, mathematical models of trade, instruments of trade policy, theory and practice of economic integration, trade liberalization issues from international and regional viewpoints. Prerequisites: ECON 604 or ECON 650 or equivalent.

ECON 753. International Finance. 3 Credits.
International capital flows, exchange rates and price level, income, money supplies, inflation, international liquidity, causes of international balance and imbalance, balance-of-payments adjustments. Monetary magnitudes as a basis for insight into international financial policies. Prerequisites: ECON 612 or ECON 650 or equivalent.

ECON 754. Economic Development. 3 Credits.
Introduction to the problems of economic development in the third world, including the problems of economic growth, income distribution, poverty, urbanization, uneven development, agricultural policy, economic planning, industrial policy, trade policy, balance of payments, finance, and currency crises. Prerequisites: ECON 604 or ECON 650.

ECON 758. Industrial Policy. 3 Credits.
Industrial policy under static and dynamic conditions. Mainstream and alternative theories considered. Prerequisites: ECON 612 or equivalent. Pre- or corequisite: ECON 625.

ECON 759. International Trade. 3 Credits.
Study of income, employment, the price level, money, and the effect of government policy under static and dynamic conditions. Mainstream and alternative theories considered. Prerequisites: ECON 612 or equivalent. Pre- or corequisite: ECON 625.

ECON 800. Econometrics I. 3 Credits.
Single-equation econometric models; serial correlation, heteroscedasticity, specification error, missing observations, and errors-in-variables and forecasting. Prerequisites: ECON 604 or equivalent and ECON 612 or equivalent. Pre- or corequisite: ECON 625.

ECON 807. Econometrics II. 3 Credits.
Multi-equation econometric models; problems such as identification, single-equation estimation, estimation of equation systems, and model evaluation techniques; time-series models such as autoregressive and moving average models; forecasting with time-series models. Prerequisites: ECON 806 or equivalent.

ECON 808. Econometrics III. 3 Credits.
Issues in cross-section and panel data, focuses on problems such as selection bias, heterogeneity, unobserved heterogeneity, treatment effects, truncation and censoring. The course covers multivariate techniques such as principal component analysis and factor analysis, along with event studies and nonparametric and semiparametric estimators. Prerequisites: ECON 807 or equivalent.

ECON 852. International Trade. 3 Credits.
Pure theory of international trade, mathematical models of trade, instruments of trade policy, theory and practice of economic integration, trade liberalization issues from international and regional viewpoints. Prerequisites: ECON 604 or ECON 650 or equivalent.

ECON 853. International Finance. 3 Credits.
International capital flows, exchange rates and price level, income, money supplies, inflation, international liquidity, causes of international balance and imbalance, balance-of-payments adjustments. Monetary magnitudes as a basis for insight into international financial policies. Prerequisites: ECON 612 or ECON 650 or equivalent.
ECON 854, Economic Development, 3 Credits.
Introduction to the problems of economic development in the third world, including the problems of economic growth, income distribution, poverty, urbanization, uneven development, agricultural policy, economic planning, industrial policy, trade policy, balance of payments, finance, and currency crises. Prerequisites: ECON 604 or ECON 650.

ECON 895, Selected Topics in Economics, 1-3 Credits.
Designed to provide the advanced student with an opportunity to study independently or in small groups and investigate specific topics of current interest in the field of economics. Prerequisites: Ph.D. standing and permission of the chair and coordinator.

ECON 998, Master's Graduate Credit, 1 Credit.
This course is a pass/fail course for master's students in their final semester. It may be taken to fulfill the registration requirement necessary for graduation. All master's students are required to be registered for at least one graduate credit hour in the semester of their graduation.

ECON 999, Doctoral Graduate Credit, 1 Credit.
This course is a pass/fail course doctoral students may take to maintain active status after successfully passing the candidacy examination. All doctoral students are required to be registered for at least one graduate credit hour every semester until their graduation.