MASTER OF ARTS IN FINANCIAL ECONOMICS

Program Director
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Program Description
The Master of Arts in financial economics program is designed to provide students with a background in economic theory and to teach students how to analyze financial markets. This program is intended to lead to professional employment in the financial services industry, including banking, insurance, and financial advising. Coursework in the program includes:

- coverage of micro- and macroeconomic theory,
- econometrics,
- time series analysis,
- financial markets,
- management of financial capital, and
- analysis of the valuation of stocks.

Electives allow students an opportunity to pursue additional topics such as international finance. Supplemented by upper-level courses in mathematics, the program can also help prepare students for doctoral study in finance, economics, or related fields.

Combined Bachelors/Masters Program
Highly qualified undergraduate students can apply for admission into the combined "4+1" Bachelors/Masters program for the MA in Economics. See the description of the "4+1" program (http://catalog.ysu.edu/undergraduate/colleges-programs/college-liberal-arts-social-sciences/department-economics/4-1-bachelors-masters-program/) in the undergraduate catalog.

Admission Requirements
In addition to the College of Graduate Studies admission requirements, applicants must have completed at least one course in each of the following areas:

- principles of microeconomics,
- principles of macroeconomics,
- statistics, and
- calculus.

Students who do not meet the requirements may be admitted on a provisional basis. Students with provisional admission are required to take undergraduate coursework to fulfill the admission requirements. With the permission of the Graduate Coordinator they may also be allowed to simultaneously take a limited number of masters-level courses.

Graduate Faculty
Huaiyu (Peter) Chen, Ph.D., Associate Professor
Equity market; abnormal return

Ou Hu, Ph.D., Professor
Financial markets; international finance; asset pricing

Tomi P. Ovaska, Ph.D., Professor
Public finance; comparative economic systems; entrepreneurship; international trade; behavioral economics

Joseph Palardy, Ph.D., Professor
Macroeconomics; time series econometrics

Albert J. Sumell, Ph.D., Professor
Urban, housing, and environmental economics

Yogesh Uppal, Ph.D., Professor
Applied microeconomics; applied econometrics; public economics; political economy; development economics

Yaqin Wang, Ph.D., Professor
Futures markets; behavioral economics

Degree Requirements
Students must complete 30 semester hours (excluding 3 semester hours for Econ 6904) of graduate credit with a grade point average of 3.0 or higher for the MA in financial economics. The requirements for the degree include the following required courses plus one elective that account for a total of three semester hours for students who choose the non-thesis option. Students who need to reinforce their quantitative skills will be asked to take Econ 6904, which does not count towards the 30 semester hours.

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<td>ECON 6922</td>
<td>Macroeconomic Theory</td>
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<td>Electives</td>
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<td>Select one 3 sh elective</td>
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Total Semester Hours 30-31

6900-level graduate courses in Economics or Finance can be used as electives (the one exception is ECON 6921, which does not count towards the degree). The elective may be either a 5800-level economics swing course or a graduate-level course outside of finance or economics that has been approved by the graduate coordinator.

Thesis Option
Students may write a thesis expanding on their project in the Research Seminar (ECON 6998) in place of the three hour elective. Students selecting the thesis option must earn a grade of B or A in the Research Seminar and submit a thesis proposal with the names of three faculty members who are willing to serve on a thesis committee to the department chair prior to registering for thesis credit hours (ECON 6999). The student must defend the thesis in an oral examination before a committee of three or more faculty members of the department. The thesis must be submitted according to the general requirements of the College of Graduate Studies.

Learning Outcomes
1. The students will demonstrate how to measure, detrend, and analyze macroeconomic variables such as GDP and inflation.
2. The students will evaluate monetary and fiscal policy using various versions of the IS-LM model.
3. The students will demonstrate the importance of expectations in current macroeconomic theory.
4. The students will compare the basic theories and models of Neoclassical and New-Keynesian Economics.
5. The student will solve for utility-maximizing and cost-minimizing outcomes using calculus.
6. The student will mathematically model the behavior of firms in competitive markets and firms who are monopolies.
7. The student will calculate the welfare losses due to a lack of competition.
8. The student will use an econometric approach to model economic phenomenon, estimate the resulting model, and interpret the estimated regression coefficients.
9. The student will demonstrate how to conduct a literature search of professional economic journals using EconLit.
10. The student will demonstrate knowledge of the various financial markets, instruments, agents, functions, and intermediaries.
11. The student will demonstrate knowledge of hedging versus speculating, primary and secondary markets for mortgage loans, and markets for future options contracts.
12. The student will demonstrate knowledge of the market interest rates swaps, and how to use financial instruments to hedge against interest risk.
13. The student will demonstrate how to use financial models to aid managers in making value maximizing choices.
14. The student will demonstrate an understanding of the allocative role and function of financial markets, securities, and corporate financial decisions in a market economy.
15. The student will demonstrate the importance of finance as a vital function within an organization that necessitates diligence and high ethical standards in application.
16. The student will demonstrate knowledge of the link between theoretically sound financial techniques and value judgment.
17. The students will demonstrate how to diagnose the characteristics of a time series (including linear trend, stochastic trend, seasonality, cycles, and other irregular patterns).
18. The students will learn how to apply appropriate forecasting methods to forecast economic and business data; as well as learn how to evaluate the performance of competing forecasting methods.
19. The students will learn how to use the vector autoregression model and vector error correction model to analyze the relationships among multiple time series and demonstrate how to interpret the estimated results from those models.

Graduate Courses

ECON 5801  Economics of Industrial Organization  3 s.h.
A systematic analysis of the structure, conduct, and performance of American industry. A quantitative analysis plus a comprehensive review of theoretical models of the market, firm behavior, and performance.
Prereq.: ECON 2610.

ECON 5806  History of Economic Thought  3 s.h.
Designed to provide students with an understanding of the development of economic ideas to include: Mercantilism, Physiocrats, the English Classical School, Utilitarianism, early Social Thought, Karl Marx, the German Historical School, Institutionalists and the Keynesian School.
Prereq.: ECON 2630.

ECON 5809  Current Problems in Money, Banking, and Financial Markets  3 s.h.
The financial market system, including money and capital markets. Current problems associated with trends in theory and practice. Theories of the interest rate and monetarism.
Prereq.: ECON 3701 or consent of instructor.

ECON 5811  International Trade  3 s.h.
Theories of international trade and specialization; free trade vs. protectionism; tariff and non-tariff barriers to international trade; international balance of payments and its components; the role of multinational enterprises in contemporary trade pattern; regional economic integrations and world trade; U.S. commercial policies.
Prereq.: ECON 2610.

ECON 5812  International Finance  3 s.h.
Theories of foreign exchange and capital movements, international payments, analysis of spot and forward foreign exchange markets, foreign exchange market arbitrage, speculation, and risk hedging. The Bretton Woods agreement and the contemporary international monetary system. The rise of international organizations and multinational enterprises in the international economy.
Prereq.: ECON 2630.

ECON 5822  Urban and Regional Economics  3 s.h.
Economic analysis of the problems of urbanized areas and the causes of the growth or decline in economic activity in small-area economics. Topics include benefit-cost analysis, economic base analysis, input-output applications, and the theory of location and agglomeration.
Prereq.: ECON 2610.

ECON 5824  Applied Time Series Analysis of Economic and Business Data  3 s.h.
An in-depth analysis of time series models and their applications to problems in economics and business. Emphasis on forecasting. Extensive use of standard computer programs.
Prereq.: ECON 2610 and STAT 4817 or ECON 3790 or (ECON 3788 and ECON 3789) or (ECON 3788 and BUS 3700).

ECON 5831  Labor Markets and the Economics of Unions  3 s.h.
Economic theory and analysis of labor as an input in the resource market; principles, labor problems, public policy; theories of the development of the labor movement; economic objectives of trade unions; problems in public control.
Prereq.: ECON 2610.

ECON 5843  Economics of Poverty, Transfers and Discrimination  3 s.h.
Examines the measurement and causes of poverty trends in the distribution of income, and antipoverty programs and their effectiveness. Discussions of theories of discrimination, difficulties in measuring the impact of discrimination, and policies designed to reduce discrimination.
Prereq.: ECON 2610.

ECON 5850  Introduction to Game Theory  3 s.h.
Topics include (not limited to) Nash equilibrium, pure/mixed strategy, static/dynamic games, repeated games and coordination, perfect/incomplete information, etc.
Prereq.: ECON 2610.

ECON 5853  Applied Econometrics  3 s.h.
The practice of econometrics with emphasis on model construction, estimation, and interpretation of results. Applications in the private and public sectors involve the use of computers and economic software.
Prereq.: ECON 2630 and ECON 3788.

ECON 5861  SAS Programming for Data Analysis  3 s.h.
An introduction to SAS programming for data analytics. Topics include using SAS for data processing, manipulation, visualization, reporting, and statistical analysis. The objective is for students to develop statistical computing skills for problem solving and decision making. Cross-listed: STAT 5811.
Prereq.: STAT 2601 or STAT 3717 or STAT 3743 or ECON 3790, or ECON 3788 and ECON 3789, or ECON 3788 and BUS 3700.

ECON 6900  Statistical Problems  3 s.h.
A survey of the fundamental statistical techniques used in business with special emphasis on interpreting the results generated by statistical software. Techniques covered: hypothesis tests of means and proportions, estimation, chi-square tests, analysis of variance, correlation, and regression. Not applicable toward the M.A. in economics.
ECON 6904  Quantitative Methods for Economics  3 s.h.
A course designed to provide graduate students in economics with an
to acquire the necessary skills in using the quantitative
methods that are required to complete graduate-level economic theory and
econometrics courses successfully. The course introduces the basic concepts
and procedures of differential and integral calculus that are used in economic
analysis, as well as the fundamental probability and statistics which are
needed in the study of econometrics.
Prereq.: admission into the MA in Economics or MA in Financial Economics
programs or permission of instructor.
ECON 6912  Microeconomic Theory  3 s.h.
Study of demand and supply, consumer theory, the theory of the firm, various
market structures, and Pareto efficiency.
ECON 6915  Health Policy  3 s.h.
A theoretical and empirical analysis of the health care sector. Topics include
the demand for health care and health insurance, the perverse incentives of
health insurance, moral hazard, physician and hospital behavior, and the role of
competitive markets in the delivery of health care. Special emphasis is placed
on the analysis of public policy, including financing and regulating the health
care industry.
Prereq.: admission into the MA in Economics or MA in Financial Economics
programs or permission of instructor.
ECON 6921  Economic Analysis of Markets and Industries  3 s.h.
Participants will learn to analyze and understand the impact on economic
factors (e.g., information, consumer behavior, supply and demand) have on
shaping markets and industries. Using this knowledge, participants will be
capable of assessing the different types of economic strategies (e.g., product
differentiation, pricing, advertising and signaling) an organization can employ
to gain market power to realize economic profits.
Prereq.: Graduate standing.
ECON 6922  Macroeconomic Theory  3 s.h.
Examines models used to determine the value of various aggregate economic
variables, such as the price level, national income, employment, interest rates,
and wage rates.
ECON 6939  The Economics of Financial Markets and Institutions  3 s.h.
Study of the institutions, instruments, and markets that facilitate the
distribution of financial resources throughout the economy. The course
discusses the money, capital, and commodity markets. Also, the topics of
accessing default risk and hedging against market risk are discussed.
Prereq.: admission into the MA in Economics or MA in Financial Economics
programs or permission of instructor.
ECON 6940  Financial Economics  3 s.h.
Study of various topics, including risk and the selection of the optimal
monetary control tool, politics and monetary control, the financial firm as an
optimizing institution, and portfolio theory.
Prereq.: ECON 6939 or permission of the instructor.
ECON 6945  Public Finance  3 s.h.
Study of the role of the government in the economy. The topics covered will
include expenditure analysis, theories of taxation, provision of public goods,
fiscal federalism, and public choice theory.
Prereq.: ECON 6912.
ECON 6952  Transfer Programs and Poverty  3 s.h.
A study of poverty and the effectiveness of antipoverty programs. Topics include
defining and measuring poverty, trends in the rate of poverty and
the distribution of income, causes of poverty, models of discrimination,
effectiveness of government training programs, transfer programs and
their effect on labor supply, and the financial stability of the Social Security
retirement program.
Prereq.: admission into the MA in Economics or MA in Financial Economics
programs or permission of instructor.
ECON 6974  Economics Internship  3 s.h.
The practical application of economic knowledge and statistical skills in the
workplace. Students assist participating professionals in various kinds of
industrial, financial, and public service organizations. By permit only.
Prereq.: ECON 6912 and ECON 6922.
ECON 6976  Econometrics  3 s.h.
Study of the fundamentals of econometric techniques that are useful for
estimating causal economic relationships. The objectives include (1) analysis
of the effects of exogenous factors on the variable whose behavior we seek to
explain, (2) testing of hypotheses about new and existing economic theories,
and (3) forecasting estimated economic relationships beyond the sample
period for the purpose of planning and control. The course will focus on the
practice of econometrics with extensive applications to a variety of real-world
problems in many areas of economics.
Prereq.: ECON 6904.
ECON 6980  Applied Time Series Analysis and Forecasting  3 s.h.
Covers essential tools for time series analysis and forecasting with emphasis
on how to apply those tools to analyze and forecast economic and business
data. Topics include ARMA models, Time Series Decomposition, Exponential
Smoothing, GARCH, VAR models, and Cointegration.
Prereq.: ECON 2610 and ECON 3789 or ECON 3790 or ECON 6976 or STAT
5817.
ECON 6988  Modeling in Financial Economics  3 s.h.
A study of modeling and evaluation of derivatives and bonds and risk
management using derivatives. Topics cover various models in asset
valuation, such as bond price models, the Black-Sholes model, diffusion
processes, and risk management. Also listed as STAT 6988.
Prereq.: STAT 4843 or STAT 6943 or ECON 6976.
ECON 6990  Special Topics in Economics  1-3 s.h.
Special interest topics selected by the staff in the following areas: economic
education, economic theory, and applied economics analysis. May be repeated
for a maximum of six hours toward a graduate degree.
ECON 6992  Data Analytics - Advanced SAS Programming  3 s.h.
This course is designed to provide students training of advanced SAS
programming for data analysis. Main topics include SQL, Macro language,
Econometrics-related procedures, working with large data set, etc. Crosslisted
with STAT 6912.
Prereq.: ECON 6976 or equivalent and either ECON 5861 or STAT 5811.
ECON 6998  Research Seminar  3 s.h.
Applied quantitative research techniques will be discussed. Students are
required to undertake an original quantitative research project in a field of
economics and write a paper summarizing their results. Course may be taken
concurrently with ECON 6976. Prereq.: ECON 6912 and ECON 6922.
ECON 6999  Master's Thesis  3 s.h.
A research project under the supervision of a member of the department on
the graduate faculty. The project typically extends the student's research in
ECON 6998. Prereq.: a grade of "A" or "B" in ECON 6998 and a thesis proposal accepted by
departmental committee.
FIN 6900  Financial Accounting and Finance for Decision Making  4 s.h.
A survey of the fundamental concepts of financial accounting employed by
general managers. Additionally, a survey of the concepts, principles, and
practices of financial management used by general managers and the links
between the two types of information. Permission required.
FIN 6902  Financial Accounting and Finance for Decision Making  1-2 s.h.
Participants be able to utilize foundational concepts of accounting and finance
so they are able to use financial statements to determine the condition of a
business. Further, participants will learn how to utilize key financial ratios,
which can vary based on a firm's performance, to be better positioned to
make more informed decisions.
Prereq.: Graduate standing.
FIN 6910  Business Internship  1-3 s.h.
Provides graduate students the opportunity to relate theory to practice through
on-the-job work experience with a participating organization. The internship
will serve as an elective MBA course.
Prereq.: Completion of level I MBA coursework and six semester hours of level
II MBA coursework.
FIN 6912  Financial Statement Analysis  2 s.h.
This course provides an understanding of financial analysis with emphasis upon decision making. Annual reports and mini-cases involving real companies are used to illustrate important concepts and financial analysis techniques. Major topics include the analysis of the income statement, cash flow statement, balance sheet, and detailed examination of various financial ratios and their significance.
Prereq.: Graduate standing and FIN 6902.

FIN 6923  Corporate Financial Management  3 s.h.
Participants will gain an understanding of financial analysis techniques that are used when evaluating businesses, projects, budgets and other related decisions. Participants will develop a set of analytical tools for conducting historical analysis (analysis of the income statement, cash flow statement, balance sheet, interpretation of various financial ratios) as well tools associated with capital budgeting, capital structure and cost of acquiring capital.
Prereq.: Graduate Standing.

FIN 6924  Securities Analysis  3 s.h.
The major emphasis will be an in-depth, fundamental analysis of the investment merits of the common stock of a firm. This study will be accomplished by applying the appropriate analytical principles and valuation techniques to the firm’s financial statements. A research paper will be required.
Prereq.: FIN 6923.

FIN 6939  Multinational Accounting and Finance  3 s.h.
A cross-functional examination of selected topics in international accounting and finance with emphasis on developing research and problem-solving skills. Cases will be presented that teach the strategy and tactics of multinational corporate reporting and financial management.
Prereq.: FIN 6923.

FIN 6945  Business Valuation  3 s.h.
A study of business valuation techniques currently used in valuing publicly traded and private equity.
Prereq.: "C" or better in FIN 3720 or FIN 6900.

FIN 6953  Advanced Financial Analysis  3 s.h.
Applications of financial analysis to business consulting. Includes case studies and practical implementation strategies.
Prereq.: FIN 6923.

FIN 6968  Special Topics in Finance  1-3 s.h.
Topics may vary from semester to semester and will be announced with prerequisites and hours. May be repeated.

FIN 6970  Seminar in Finance  3 s.h.
Specific topics selected by the staff from timely and controversial work published in the field.
Prereq.: All core courses, plus at least six hours (6900-level) in the finance concentration, or permission of instructor.

FIN 6996  Research Problems  1-4 s.h.
Special research project under the supervision of a graduate faculty member. Credit will be determined in each case in light of the nature and extent of the project.
Prereq.: Fifteen hours of level II MBA coursework or permission of MBA director.