Twin Cities Campus Economics M.A.

Economics

College of Liberal Arts

Link to a list of faculty for this program.

Contact Information:

Department of Economics, 4-101 Hanson Hall, 1925 4th Street South, Minneapolis MN 55455 (612-625-6833; fax: 612-624-0209)

Email: econdgs@umn.edu

Website: https://cla.umn.edu/economics/graduate

• Program Type: Master's

• Requirements for this program are current for Spring 2022

• Length of program in credits: 30

• This program does not require summer semesters for timely completion.

• Degree: Master of Arts

Along with the program-specific requirements listed below, please read the <u>General Information</u> section of the catalog website for requirements that apply to all major fields.

Note: Students are admitted only for the PhD in economics; the MA is an optional part of the PhD program.

The economics graduate program offers degree work in both theoretical and applied fields of economics with an emphasis on quantitative economic analysis. The strong quantitative component in this degree emphasizes multivariate calculus, linear algebra, and econometrics (statistical methods of economic data). Economics coursework consists of microeconomic theory, macroeconomic theory, economic growth, price theory, cost-benefit analysis, econometrics, economic modelling and forecasting, industrial organization, economic development, game theory, optimization theory, and financial, computational, international, mathematical, monetary, public, and labor economics. Fields of specialization and written preliminary examinations include microeconomic theory, macroeconomic theory, econometrics, economic growth and development, financial economics, game theory, computational economics, industrial organization, labor economics, international economics, mathematical economics, monetary economics, and public economics.

Program Delivery

This program is available:

• via classroom (the majority of instruction is face-to-face)

Prerequisites for Admission

Special Application Requirements:

Note: The Economics graduate program does not accept applications directly to the MA; rather, the MA is an additional or alternative credential for students admitted to the Economics PhD program.

For an online application or for more information about graduate education admissions, see the <u>General Information</u> section of the catalog website.

Program Requirements

Plan B: Plan B requires 24 major credits and 6 credits outside the major. The final exam is written. A capstone project is required. Capstone Project: Two Plan B projects consisting of research papers or literature reviews are required; the PhD written preliminary exams required in two fields outside of economic theory ("field exams") may be used to satisfy either or both of the Plan B projects.

This program may be completed with a minor.

Use of 4xxx courses towards program requirements is not permitted.

A minimum GPA of 3.00 is required for students to remain in good standing.

Coursework offered on both the A-F and S/N grade basis must be taken A-F, with a minimum grade of C earned for each.

Required Core Courses (16 Credits)

Take the following courses for 16 credits:

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ECON 8101 - Microeconomic Theory (2.0 cr)
ECON 8102 - Microeconomic Theory (2.0 cr)
ECON 8103 - Microeconomic Theory (2.0 cr)
ECON 8104 - Microeconomic Theory (2.0 cr)
ECON 8105 - Macroeconomic Theory (2.0 cr)
ECON 8106 - Macroeconomic Theory (2.0 cr)
ECON 8107 - Macroeconomic Theory (2.0 cr)
ECON 8108 - Macroeconomic Theory (2.0 cr)
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Economics Electives (8 Credits)

Select at 8 credits of electives. ECON 8990 cannot be used to meet degree requirements. **ECON 8xxx**

Outside Coursework (6 Credits)

Take at least 6 credits outside the major. Courses are selected in consultation with the director of graduate studies. ECON 8990

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cannot be used to meet degree requirements.
CSCI 5302 - Analysis of Numerical Algorithms (3.0 cr)
CSCI 5512 - Artificial Intelligence II (3.0 cr)
CSCI 5521 - Machine Learning Fundamentals (3.0 cr)
CSCI 5523 - Introduction to Data Mining (3.0 cr)
CSCI 5525 - Machine Learning: Analysis and Methods (3.0 cr)
CSCI 5715 - From GPS, Google Maps, and Uber to Spatial Data Science (3.0 cr)
CSCI 5801 - Software Engineering I (3.0 cr)
CSCI 8115 - Human-Computer Interaction and User Interface Technology (3.0 cr)
FINA 8802 - Theory of Capital Markets I: Discrete Time (2.0 cr)
FINA 8803 - Theory of Capital Markets II: Continuous Time (2.0 cr)
FINA 8810 - Topics in Asset Pricing (2.0 cr)
FINA 8812 - Corporate Finance I (2.0 cr)
FINA 8820 - Topics in Corporate Finance (2.0 cr)
IE 8534 - Advanced Topics in Operations Research (1.0 - 4.0 cr)
MATH 5485 - Introduction to Numerical Methods I (4.0 cr)
MATH 5486 - Introduction To Numerical Methods II (4.0 cr)
MATH 5615H - Honors: Introduction to Analysis I (4.0 cr)
MATH 5616H - Honors: Introduction to Analysis II (4.0 cr)
MATH 5651 - Basic Theory of Probability and Statistics (4.0 cr)
MATH 5652 - Introduction to Stochastic Processes (4.0 cr)
MATH 8201 - General Algebra (3.0 cr)
MATH 8271 - Lie Groups and Lie Algebras (3.0 cr)
MATH 8301 - Manifolds and Topology (3.0 cr)
MATH 8302 - Manifolds and Topology (3.0 cr)
MATH 8306 - Algebraic Topology (3.0 cr)
MATH 8441 - Numerical Analysis and Scientific Computing (3.0 cr)
MATH 8442 - Numerical Analysis and Scientific Computing (3.0 cr)
MATH 8445 - Numerical Analysis of Differential Equations (3.0 cr)
MATH 8501 - Differential Equations and Dynamical Systems I (3.0 cr)
MATH 8502 - Differential Equations and Dynamical Systems II (3.0 cr)
MATH 8520 - Topics in Dynamical Systems (1.0 - 3.0 cr)
MATH 8571 - Theory of Evolutionary Equations (3.0 cr)
MATH 8572 - Theory of Evolutionary Equations (3.0 cr)
MATH 8583 - Theory of Partial Differential Equations (3.0 cr)
MATH 8590 - Topics in Partial Differential Equations (1.0 - 3.0 cr)
MATH 8601 - Real Analysis (3.0 cr)
MATH 8602 - Real Analysis (3.0 cr)
MATH 8651 - Theory of Probability Including Measure Theory (3.0 cr)
MATH 8652 - Theory of Probability Including Measure Theory (3.0 cr)
MATH 8659 - Stochastic Processes (3.0 cr)
NSCI 5101 - Neurobiology I: Molecules, Cells, and Systems (3.0 cr)
PSY 5015 - Cognition, Computation, and Brain (3.0 cr)
PSY 5018H - Mathematical Models of Human Behavior (3.0 cr)
PSY 5062 - Cognitive Neuropsychology (3.0 cr)
PSY 5064 - Brain and Emotion (3.0 cr)
PSY 5065 - Functional Imaging: Hands-on Training (3.0 cr)
PSY 5137 - Introduction to Behavioral Genetics (3.0 cr)
STAT 5101 - Theory of Statistics I (4.0 cr)
STAT 8054 - Statistical Methods 4: Advanced Statistical Computing (3.0 cr)
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STAT 8056 - Statistical Learning and Data Mining (3.0 cr) STAT 8101 - Theory of Statistics 1 (3.0 cr)

STAT 8102 - Theory of Statistics 2 (3.0 cr)

STAT 8501 - Introduction to Stochastic Processes with Applications (3.0 cr)