COLLEGE OF SCIENCE

Department of Economics Bachelor of Arts

Major: Economics

Option: Managerial Economics and Data Science (MEDS) For Students Entering Under UG Catalog 2023-2024

Pathways to General Education Requirements (45-46 hours)

1. Discourse (9 hours)	(6)
Foundational: ENGL 1105 First Year Writing and ENGL 1106 Freshmen English ¹	(6)
Advanced/Applied: Select one "1A" course	(3)
2. Critical Thinking in the Humanities (6 hours)	
	(3)
	(3) (3)
3. Reasoning in the Social Sciences (6 hours)	(2)
	(3) (3)
TI' ' (1 FOON 2007 1 FOON 2007 1 1 1 1	(3)
This requirement cannot be satisfied by ECON 2005 and ECON 2006 since they are included in the Economics Common Degree Core Requirements.	
4. Reasoning in the Natural Sciences (6 hours)	
	(3)
	(3)
	· /
5. Quantitative and Computational Thinking (9-10 hours)	
Foundational: MATH 1225 Calculus of a Single Variable (preferred)	
or MATH 1025 Elementary Calculus	(3-4)
Select one additional "5F" course Advanced/Applied: Select one "5A" course	(3) (3)
Advanced/Applied: Select one "5A" course	(3)
MATH 1026, MATH 1226, STAT 3005, STAT 3615, STAT 3604, and BIT 2406 cannot be used to fulfill Pathway Concept 5 if they are used to fulfill the Economics Common Degree Core Requirements. Students electing to count MATH 1025/1026 toward their economics degree requirements must earn at least a B- in each. Students electing to count MATH 1225/1226 toward their economics degree requirements must earn at least a C- in each.	
6. Critique and Practice in Design and the Arts (6 hours)	
Design Course (6D)	(3)
Design Course (6D) Arts Course (6A)	(3)
	(-)
7. Critical Analysis of Identity and Equity in the United States (3 hours)	
	(3)

¹ These courses have pre-requisites. Please consult the undergraduate course catalog or check with your advisor.

Major Requirements (51-52 hours)
STUDENTS NEED 30 CREDIT HOURS OF APPROVED ECONOMICS COURSES TO GRADUATE.

I. Economics Common Degree Core Requirements (21-22 hours) ECON 2005 Principles of Economics ECON 2006 Principles of Economics ECON 3104 Microeconomic Theory ECON 3204 Macroeconomic Theory ECON 2005, ECON 2006, ECON 3104, and ECON 3204 must be completed with a grade of C or better.	(3) (3) (3) (3)
ECON 3254 Analysis of Economic Data ¹ or ECON 4304 Econometric Methods ¹	(3)
MATH 1226 Calculus of a Single Variable ¹ or MATH 1026 Elementary Calculus ¹ MATH 1226 must be completed with a grade of C- or better. MATH 1026 must be completed with a grade of B- or better. MATH 1226 is preferred by Department.	(3-4)
Statistics Requirement (Choose 1) STAT 3005 Statistical Methods ¹ STAT 3604 Statistics for Social Science ¹ STAT 3615 Biological Statistics ¹ STAT 4706 Statistics for Engineers ¹ BIT 2406 Introduction to Business Statistics, Analytics, & Modeling ¹ STAT 3005, 3604, 3615, 4706 or BIT 2406 must be completed with a grade of a C or better.	(3)
II. Economics Major with MEDS Option Course Requirements (15 hours) ECON 3054 Introduction to Forecasting ¹ ECON 3154 Managerial Economics ¹ ECON 4084 Industry Structure ¹ ECON 4314 Big Data Economics ¹ ECON 4614 R Programming in Economics ¹ Students that complete ECON 2025H (which replaces ECON 2005 and ECON 3104) must complete an additional 3 hours of ECON electives. Students that complete ECON 2026H (which replaces ECON 2006 and ECON 3204) must complete an additional 3 hours of ECON electives.	(3) (3) (3) (3) (3)
III. MEDS Course Requirements (15 hours)	
A. Diverse Perspectives (Choose 1) ECON 1104 Economics of Gender ECON 1204 Economics of Race	(3)

ECON 1214 Economic History of Diversity and Inclusion

¹ These courses have pre-requisites. Please consult the undergraduate course catalog or check with your advisor.

ECON 3134 (BDS 3134) Choice and Behavior ¹ ECON 3144 Economics of Regulation ¹ ECON 3214 Money and Banking ¹ ECON 4014 Environmental Economics ¹ ECON 4054 Public Finance ¹ ECON 4074 Labor Economics ¹ ECON 4074 Labor Economics of Health Care ¹ ECON 4404 Economics of Organizations ¹ ECON 4404 Economics of Organizations ¹ ECON 4424 Theory of Games and Economic Behavior ¹ ECON 4434 Experimental Economics ¹ (3)	B. Data in Context (Choose 2)	
ECON 3214 Money and Banking¹ ECON 4014 Environmental Economics¹ ECON 4054 Public Finance¹ ECON 4074 Labor Economics¹ ECON 4214 Economics of Health Care¹ ECON 4404 Economics of Organizations¹ ECON 4424 Theory of Games and Economic Behavior¹ ECON 4434 Experimental Economics¹ ———————————————————————————————————	ECON 3134 (BDS 3134) Choice and Behavior ¹	
ECON 4014 Environmental Economics¹ ECON 4054 Public Finance¹ ECON 4074 Labor Economics¹ ECON 4214 Economics of Health Care¹ ECON 4404 Economics of Organizations¹ ECON 4424 Theory of Games and Economic Behavior¹ ECON 4434 Experimental Economics¹ ———————————————————————————————————	ECON 3144 Economics of Regulation ¹	
ECON 4054 Public Finance¹ ECON 4074 Labor Economics¹ ECON 4214 Economics of Health Care¹ ECON 4404 Economics of Organizations¹ ECON 4424 Theory of Games and Economic Behavior¹ ECON 4434 Experimental Economics¹ ———————————————————————————————————		
ECON 4074 Labor Economics ECON 4214 Economics of Health Care ECON 4404 Economics of Organizations ECON 4424 Theory of Games and Economic Behavior ECON 4434 Experimental Economics ———————————————————————————————————	ECON 4014 Environmental Economics ¹	
ECON 4214 Economics of Health Care ¹ ECON 4404 Economics of Organizations ¹ ECON 4424 Theory of Games and Economic Behavior ¹ ECON 4434 Experimental Economics ¹ ———————————————————————————————————	ECON 4054 Public Finance ¹	
ECON 4404 Economics of Organizations ¹ ECON 4424 Theory of Games and Economic Behavior ¹ ECON 4434 Experimental Economics ¹ ———————————————————————————————————		
ECON 4424 Theory of Games and Economic Behavior ¹ ECON 4434 Experimental Economics ¹ ———————————————————————————————————	ECON 4214 Economics of Health Care ¹	
ECON 4434 Experimental Economics ¹ ECON 3004, 4754, 4964, 4974, 4974H, and 4984 may be used as one of the two required courses with approval from the department prior to the start of the semester in which the course is completed. C. Analytical Reasoning (Choose 2) MATH 2114 Introduction to Linear Algebra ¹ MATH 2114H Introduction to Linear Algebra ¹ MATH 2405H Mathematics in a Computational Context ¹ STAT 3094 SAS Programming ¹ STAT 3654 (CMDA 3654) (CS 3654) Introductory Data Analytics and Visualization ¹ STAT 3104 Probability and Distributions ¹ CS 1064 Introduction to Programming in Python ¹	ECON 4404 Economics of Organizations ¹	
ECON 3004, 4754, 4964, 4974, 4974H, and 4984 may be used as one of the two required courses with approval from the department prior to the start of the semester in which the course is completed. C. Analytical Reasoning (Choose 2) MATH 2114 Introduction to Linear Algebra ¹ MATH 2114H Introduction to Linear Algebra ¹ MATH 2405H Mathematics in a Computational Context ¹ STAT 3094 SAS Programming ¹ STAT 3654 (CMDA 3654) (CS 3654) Introductory Data Analytics and Visualization ¹ STAT 3104 Probability and Distributions ¹ CS 1064 Introduction to Programming in Python ¹	ECON 4424 Theory of Games and Economic Behavior ¹	
ECON 3004, 4754, 4964, 4974, 4974H, and 4984 may be used as one of the two required courses with approval from the department prior to the start of the semester in which the course is completed. C. Analytical Reasoning (Choose 2) MATH 2114 Introduction to Linear Algebra ¹ MATH 2114H Introduction to Linear Algebra ¹ MATH 2405H Mathematics in a Computational Context ¹ STAT 3094 SAS Programming ¹ STAT 3654 (CMDA 3654) (CS 3654) Introductory Data Analytics and Visualization ¹ STAT 3104 Probability and Distributions ¹ CS 1064 Introduction to Programming in Python ¹	ECON 4434 Experimental Economics ¹	
ECON 3004, 4754, 4964, 4974, 4974H, and 4984 may be used as one of the two required courses with approval from the department prior to the start of the semester in which the course is completed. C. Analytical Reasoning (Choose 2) MATH 2114 Introduction to Linear Algebra ¹ MATH 2114H Introduction to Linear Algebra ¹ MATH 2405H Mathematics in a Computational Context ¹ STAT 3094 SAS Programming ¹ STAT 3654 (CMDA 3654) (CS 3654) Introductory Data Analytics and Visualization ¹ STAT 3104 Probability and Distributions ¹ CS 1064 Introduction to Programming in Python ¹		(3)
required courses with approval from the department prior to the start of the semester in which the course is completed. C. Analytical Reasoning (Choose 2) MATH 2114 Introduction to Linear Algebra ¹ MATH 2114H Introduction to Linear Algebra ¹ MATH 2405H Mathematics in a Computational Context ¹ STAT 3094 SAS Programming ¹ STAT 3654 (CMDA 3654) (CS 3654) Introductory Data Analytics and Visualization ¹ STAT 3104 Probability and Distributions ¹ CS 1064 Introduction to Programming in Python ¹		(3)
C. Analytical Reasoning (Choose 2) MATH 2114 Introduction to Linear Algebra ¹ MATH 2114H Introduction to Linear Algebra ¹ MATH 2405H Mathematics in a Computational Context ¹ STAT 3094 SAS Programming ¹ STAT 3654 (CMDA 3654) (CS 3654) Introductory Data Analytics and Visualization ¹ STAT 3104 Probability and Distributions ¹ CS 1064 Introduction to Programming in Python ¹		
C. Analytical Reasoning (Choose 2) MATH 2114 Introduction to Linear Algebra ¹ MATH 2114H Introduction to Linear Algebra ¹ MATH 2405H Mathematics in a Computational Context ¹ STAT 3094 SAS Programming ¹ STAT 3654 (CMDA 3654) (CS 3654) Introductory Data Analytics and Visualization ¹ STAT 3104 Probability and Distributions ¹ CS 1064 Introduction to Programming in Python ¹		
MATH 2114 Introduction to Linear Algebra ¹ MATH 2114H Introduction to Linear Algebra ¹ MATH 2405H Mathematics in a Computational Context ¹ STAT 3094 SAS Programming ¹ STAT 3654 (CMDA 3654) (CS 3654) Introductory Data Analytics and Visualization ¹ STAT 3104 Probability and Distributions ¹ CS 1064 Introduction to Programming in Python ¹	in which the course is completed.	
MATH 2114 Introduction to Linear Algebra ¹ MATH 2114H Introduction to Linear Algebra ¹ MATH 2405H Mathematics in a Computational Context ¹ STAT 3094 SAS Programming ¹ STAT 3654 (CMDA 3654) (CS 3654) Introductory Data Analytics and Visualization ¹ STAT 3104 Probability and Distributions ¹ CS 1064 Introduction to Programming in Python ¹	C. Analytical Reasoning (Choose 2)	
MATH 2114H Introduction to Linear Algebra ¹ MATH 2405H Mathematics in a Computational Context ¹ STAT 3094 SAS Programming ¹ STAT 3654 (CMDA 3654) (CS 3654) Introductory Data Analytics and Visualization ¹ STAT 3104 Probability and Distributions ¹ CS 1064 Introduction to Programming in Python ¹		
MATH 2405H Mathematics in a Computational Context ¹ STAT 3094 SAS Programming ¹ STAT 3654 (CMDA 3654) (CS 3654) Introductory Data Analytics and Visualization ¹ STAT 3104 Probability and Distributions ¹ CS 1064 Introduction to Programming in Python ¹	e i	
STAT 3094 SAS Programming ¹ STAT 3654 (CMDA 3654) (CS 3654) Introductory Data Analytics and Visualization ¹ STAT 3104 Probability and Distributions ¹ CS 1064 Introduction to Programming in Python ¹	· · · · · · · · · · · · · · · · · · ·	
STAT 3104 Probability and Distributions ¹ CS 1064 Introduction to Programming in Python ¹		
STAT 3104 Probability and Distributions ¹ CS 1064 Introduction to Programming in Python ¹	STAT 3654 (CMDA 3654) (CS 3654) Introductory Data Analytics and Visualization ¹	
	CS 1064 Introduction to Programming in Python ¹	
(3)		(3)
		(3)

Other MATH, STAT, or CS courses may be used as one of the two required courses with approval from the department prior to the start of the semester in which the course is completed.

Free Electives (sufficient to achieve the required 120 total credit hours)

A free elective is any course a student takes toward the completion of the required minimum of 120 credit hours that does not complete a degree requirement.

Total Hours Required

A minimum of 120 semester hours are required for graduation.

Overall and In-Major GPA

Students must have a 2.0 overall GPA and 2.0 in-major GPA to graduate. Only ECON courses count toward the in-major GPA.

Foreign Language

Students who did not successfully complete at least two years of a single foreign, classical, or sign language during high school must successfully complete six semester hours of a single foreign, classical, or sign language at the college level. Courses taken to meet this requirement do not count toward the hours required for graduation. Please consult the Undergraduate Catalog for details.

¹ These courses have pre-requisites. Please consult the undergraduate course catalog or check with your advisor.

Progress Toward Degree (Policy 91)

In order to remain in the Economics Major, students must meet the following requirements:

1. Upon having attempted 72 semester hours (including transfer, advanced placement, advanced standing, credit by examination, course withdrawal), students must have completed

ECON 2005 Principles of Economics (Micro) with a C or better ECON 2006 Principles of Economics (Macro) with a C or better 3 hrs ECON 3104 Microeconomic Theory with a C or better 3 hrs

2. Upon having attempted 96 semester hours, students must have an In-Major grade point average of 2.0 or above and must have completed the above courses plus:

ECON 3204 Macroeconomic Theory with a C or better 3 hrs STAT 3005, 3604, 3615, 4706 or BIT 2406 all with a C or better 3 hrs

- 3. Students may not repeat any ECON course more than once, including late course withdrawals.
- 4. Students must register for at least three 3 credit ECON course during each academic year unless they have completed all ECON courses required for graduation.
- 5. Students may not repeat more than 3 ECON courses in the major.

A student who does not make satisfactory progress toward degree will be required to change their major out of Economics.