COLLEGE OF SCIENCE
Department of Economics
Bachelor of Arts
Major: Economics
Option: Managerial Economics and Data Science (MEDS)
For Students Graduating in Calendar Year 2022
and for Student Date of Entry Under UG Catalog 2021-2022

Pathways to General Education Requirements (45-46 hours)

1. Discourse (9 hours)
ENGL 1105 First Year Writing and ENGL 1106 First Year Writing[1]   (6) _____
Advanced/Applied: Select one "1A" course: _____   (3) _____

2. Critical Thinking in the Humanities (6 hours)
_____   (3) _____
_____   (3) _____

3. Reasoning in the Social Sciences (6 hours)
_____   (3) _____
_____   (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: _____   (3) _____
        Advanced/Applied: Select one "5A" course: _____   (3) _____

MATH 1026, MATH 1226, STAT 3005, STAT 3615 and STAT 3604 cannot be used to
fulfill the Pathways Concept 5 if they are used to fulfill the Economics Degree Core Requirements.

6. Critique and Practice in Design and the Arts (6 hours)
Design Course (6D): _____   (3) _____
Arts Course (6A): _____   (3)

7. Critical Analysis of Identity and Equity in the United States (3 hours)
_____   (3) _____

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

I. Economics Required Common Degree Core (21-22 hours)
These four courses must be completed with a grade of C or better.

ECON 2005 Principles of Economics (3) _____

ECON 2006 Principles of Economics[1] (3) _____

ECON 3104 Microeconomic Theory[1] (3) _____

ECON 3204 Macroeconomic Theory[1] (3) _____

ECON 3254 Analysis of Economic Data[1] (3) _____
   or 4304 Econometric Methods[1]

MATH 1226 Calculus of a Single Variable[1] or MATH 1026 Elementary Calculus[1] (3-4) _____
   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.

Statistics Requirement (Choose 1) (3) _____
Chosen course must be completed with a grade of a C or better.
   STAT 3005 Statistical Methods
   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]

II. Economics Major with Managerial Economics and Data Science
Option Economics Course Requirements (15 hours)
   ECON 3004 Contemporary Economic Issues[1,2] (3) _____
   ECON 4084 Industry Structure[1] (3) _____
   ECON 4614 R Programming in Economics[1] (3) _____
   ECON 4314 Big Data Economics[1] (3) _____
   ECON 3054 Introduction to Forecasting[1,4] (3) _____
   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.

III. Managerial Economics and Data Science Option Course Requirements (15 hours)

A. Diverse Perspectives   (3) _____
Choose 1 course from:
    ECON 1104 Economics of Gender[4]
    ECON 1204 Economics of Race[4]
    ECON 1214 Economic History of Diversity and Inclusion[4]

B. Data in Context
Choose 2 courses from:
    ECON 3004 Contemporary Economic Issues[1,2]
    ECON 4754 Internship[1,2]
    ECON 4964 Field Study[1,2]
    ECON 4974 Independent Study[1,2]
    ECON 4974H Independent Study Honors[1,2]
    ECON 4994 Undergraduate Research[1,2]
    ECON 4994H Undergraduate Research Honors[1,2]
    ECON 4404 Economics of Organizations[1]
    ECON 4424 The Theory of Games and Economic Behavior[1]
    ECON 4424 Health Economics[1]
    ECON 4014 Environmental Economics[1]
    ECON 3144 Economics of Regulation[1]
    ECON 3134 (BDS 3134) Choice and Behavior[1,4]
    ECON 3214 Money and Banking[1]
    ECON 4054 Public Finance[1]

_____   (3) _____
_____   (3) _____

C. Computational and Analytical Reasoning and Communication
Choose 1 course from:
    MATH 1114 Elementary Linear Algebra[2]
    MATH 2114 Introduction to Linear Algebra[1,2]
    MATH 2114H Introduction to Linear Algebra Honors[1,2]
    MATH 2405 Mathematics in a Computational Context[1,2]
    MATH 2405H Mathematics in a Computational Context[1,2]
    Or other MATH course approved by the Economics Department

_____   (3) _____

Choose 1 course from:
    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[4]
    ECON 3004 Contemporary Economic Issues[1,2,3]

_____   (3) _____

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.

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   3 hrs
    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.

[1] These courses have pre-requisites. Please consult the undergraduate course catalog or check with your advisor.
[2] These courses must be approved by the Department of Economics to count toward the Managerial Economics and Data Science Option. Please contact the advisor to start the approval process.
[3] Courses may only count toward an area III.B *or* an area III.C requirement.
[4] Credits may double count for Options Requirements and Pathways (Section I).