University of Missouri

## BS in Economics

## Degree Program Description

Economics is a broad discipline that explores the factors that determine production, distribution, and consumption of resources. An Economics degree provides a good foundation on how the economy and the world works and an understanding of the effects of policy issues. The BS degree in Economics is a challenging degree program specifically designed for students who plan to attend graduate school in Economics, Finance, or related fields. The curriculum includes more quantitative coursework than the BA degree, but still allows students to take electives that focus on various aspects of economics, such as labor, law, and education. Graduates in Economics enter a diverse field of jobs in government, banking, insurance or other financial sectors, private sector businesses or even open their own businesses. Often students pursuing a BS degree double major with Mathematics or Statistics and look at employment positions in actuarial science or more analytical fields.

## Major Program Requirements

Students must earn a grade of C - or higher in all Economics, Mathematics and Statistics courses, and must have at least a 2.0 GPA in Economics courses to earn the degree. In addition to the major core requirements, students must complete college and University graduation requirements (http://catalog.missouri.edu/academicdegreerequirements/ universityrequirements/) including University general education requirements (http://catalog.missouri.edu/academicdegreerequirements/ generaleducationrequirements/).

## BS Tracks in Economics

While students can pursue the Bachelor of Science in Economics, there are also three optional tracks to allow for more focus in an area of interest: Business, Policy Analysis and Quantitative. The Business and Policy Analysis tracks are for students who want more analytical and focused experience for their future career ambitions. The Quantitative Track is for students who plan to attend graduate school in economics or finance.

## Core Requirements for BS in Economics

| MATH 1100 | College Algebra | 3 |
| :---: | :---: | :---: |
| MATH 1400 or MATH 1500 | Calculus for Social and Life Sciences I Analytic Geometry and Calculus I | 3 |
| ECONOM 1014 <br> \& ECONOM 1015 <br> or ECONOM 1000 | Principles of Microeconomics and Principles of Macroeconomics General Economics | 5-6 |
| ECONOM 3271 | Introduction to Applied Econometric Practice | 3 |
| ECONOM 4351 | Intermediate Microeconomics | 3 |
| ECONOM 4353 | Intermediate Macroeconomics | 3 |
| ECONOM 4370 | Quantitative Economics (Or Additional 4000-ECONOM Elective) | 3 |
| ECONOM 4371 | Introductory Econometrics | 3 |

12 Hours of ECONOM Electives* See Electives section for more specific requirments.
12 Hours of Complementary Field Courses (if no optional track chosen)

2000+ level coursework in STEM(Bio Sc, Chem, Physics, Math, Stat), Acctcy, Financ and selected Pub Af, Mangmt, Mrktng, and Fin Pln courses. May include any level Engineering, Comp Sc, or Info Tc courses. All grades must be C- or higher.

## Optional Business Track

6 of the required 12 hours of ECONOM Electives must come from the following:

| ECONOM 3367 | Law and Economics 3 |
| :---: | :---: |
| or ECONOM 3367W | Law and Economics - Writing Intensive |
| ECONOM 3940 | Internship |
| ECONOM 4311 | Labor Economics |
| or ECONOM 4311W | Labor Economics - Writing Intensive |
| ECONOM 4326 | Economics of International Trade |
| or ECONOM 4326W | Economics of International Trade - Writing Intensive |
| ECONOM 4328 | Financial Economics |
| ECONOM 4329 | The Banking System and the Money Market |
| or ECONOM 4329W | The Banking System and the Money Market - Writing Intensive |
| ECONOM 4340 | Introduction to Game Theory |
| ECONOM 4355 | Industrial Organization and Competitive Strategy |
| or ECONOM 4355W | Industrial Organization and Competitive Strategy Writing Intensive |
| ECONOM 4940 | Internship in Economics |
| 12 hours of Complementary Field Courses. |  |
| 2000+ level coursework MANGMT, MRKTNG, an C- or higher. | ACCTCY, FINANC, and selected FIN_PL courses. All grades must be a |

Optional Policy Analysis Track
6 of the required 12 hours of ECONOM Electives must come from the following:

|  |  |
| :---: | :---: |
| or ECONOM 3367W | Law and Economics - Writing Intensive |
| ECONOM 3940 | Internship |
| ECONOM 4311 or ECONOM 4311W | Labor Economics <br> Labor Economics - Writing Intensive |
| ECONOM 4315 <br> or ECONOM 4315W | Public Economics <br> Public Economics - Writing Intensive |
| ECONOM 4316 | State and Local Finance |
| ECONOM 4317 <br> or ECONOM 4317W | Urban Economics <br> Urban Economics - Writing Intensive |
| ECONOM 4340 | Introduction to Game Theory |
| ECONOM 4345 or ECONOM 4345W | Economics of Education <br> Economics of Education - Writing Intensive |
| ECONOM 4357 <br> or ECONOM 4357W | Health Economics <br> Health Economics - Writing Intensive |
| ECONOM 4846 <br> or ECONOM 4846W | Economics of Discrimination <br> Economics of Discrimination - Writing Intensive |
| ECONOM 4940 | Internship in Economics |
| 2 hours of Complementary Field courses. |  |
| 2000+level coursework in selected Public Affairs courses. All grades must be C- or higher. |  |
| ptional Quantitative Track |  |
| MATH 1100 <br> MATH 1140 <br> or MATH 1160 | College Algebra and Trigonometry Precalculus Mathematics |

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| MATH 1500 | Analytic Geometry and Calculus I | 5 |
| :--- | :--- | :--- |
| MATH 1700 | Calculus II | 5 |
| MATH 2300 | Calculus III | 3 |
| MATH 4140 | Matrix Theory | 3 |
| STAT 4710 <br> \& STAT 4510 <br> or STAT 4750 <br> \& STAT 4760 | Introduction to Mathematical Statistics <br> and Applied Statistical Models I <br> MATH 3000 | Introduction to Probability Theory <br> and Statistical Inference |
| MATH 4700 | Introduction to Advanced Mathematics <br> (or a 4000 level MATH or STAT course) | 6 |
|  | Advanced Calculus of One Real Variable <br> I (or a 4000 MATH or STAT course) | 3 |

12 Hours of ECONOM Electives* See Electives section for more specific requirments.

## Second Language Alternative (for BS degree)

A student may elect to fulfill a special option area instead of taking a second language. This area consists of at least 12 credits numbered 2000 or above that are not from the parent department, are not normally required of all departmental majors and do not appear elsewhere in the area of concentration. The second language alternative is planned by the student with the Economics Academic Advisor and must be approved by the Director of Undergraduate Studies.

## Electives

Students must complete four Economics electives, with at least two courses( 6 hours) at the 4000 level. One 3000+ level Economics course must be Writing Intensive. Students who double or dual major will be eligible to waive one 3000 level Economics Elective course.

## Accelerated BS in Economics to MA in Economics

## Requirements:

Total credits for graduation $=138$

- Undergraduate credits $=108$ (Complete at least 90 credits and have a GPA of at least 3.25
- Dual credits = 12 (taken at graduate level for credit toward both BS and MA degrees)
- Graduate credits = 18

Coursework and Program Requirements

## BS Core Requirements-Accelerated option

|  | Principles of Microeconomics | 3 |
| :---: | :---: | :---: |
| or ECONOM 1014H | Principles of Microeconomics-Honors |  |
| ECONOM 1015 | Principles of Macroeconomics | 3 |
| or ECONOM 1015H | Principles of Macroeconomics - Honors |  |
| ECONOM 3271 | Introduction to Applied Econometric Practice | 3 |
| ECONOM 4351 | Intermediate Microeconomics | 3 |
| or ECONOM 4351H | Intermediate Microeconomics - Honors |  |
| ECONOM 4353 | Intermediate Macroeconomics | 3 |
| or ECONOM 4353W | Intermediate Macroeconomics - Writing Intensive |  |
| ECONOM 4370 | Quantitative Economics | 3 |
| ECONOM 4371 | Introductory Econometrics | 3 |

## Electives in Major

Economics Electives- 12 Credits, at least six of which must be at the
4000-level or higher

Complementary fields courses: 2000-level+coursework in STEM(including Engineering, Computer Science, and Info Tech), Accounting, Finance, selected Public Affairs courses, and selected Management, Marketing and PFP courses-12 Credits.

| Complementary fields courses: 2000-level+coursework in |  |  |
| :---: | :---: | :---: |
| STEM(including Engineering, Computer Science, and Info Tech), Accounting, Finance, selected Public Affairs courses, and selected Management, Marketing and PFP courses-12 Credits. |  |  |
| MA Core-Accelerated Option |  |  |
| ECONOM 4370 <br> or ECONOM 7370 <br> or ECONOM 8370 | Quantitative Economics <br> Quantitative Economics <br> Mathematics for Economics | 3 |
| ECONOM 4371 <br> or ECONOM 7371 <br> or ECONOM 8472 | Introductory Econometrics Introductory Econometrics Econometric Methods I | 3 |
| ECONOM 8413 | Research Workshop I | 3 |
| ECONOM 8451 or ECONOM 9451 | Microeconomic Theory <br> Advanced Microeconomic Theory I | 3 |
| ECONOM 8453 <br> or ECONOM 9453 | Macroeconomic Theory <br> Advanced Macroeconomic Theory I | 3 |
| ECONOM 8473 <br> or ECONOM 9473 | Applied Econometrics Econometric Theory II | 3 |

## Accelerated BS in Economics (Policy Track) to Masters of Public Affairs Requirements:

Total Credits for graduation $=141$
-Undergraduate credits = 105
-Dual credits = 15 (taken at graduate level for credit toward both BS and MPA degrees)

- Graduate credits = 21

BS Economics-Policy Track- Accelerated
Major Core Requirements
ECONOM 1014
Principles of Microeconomics
3
or ECONOM 1014H
ECONOM 1015
or ECONOM 1015H
ECONOM $3271 \quad$ Introduction to Applied Econometric 3 Practice
ECONOM 4351 Intermediate Microeconomics 3

| or ECONOM 4351H | Intermediate Microeconomics - Honors |
| :--- | :--- | :--- |
| Intermediate Macroeconomics | 3 |

or ECONOM 4353W Intermediate Macroeconomics - Writing Intensive
ECONOM 4370
ECONOM 4371 Introductory Econometrics 3
Electives in Major 12
At least 6 credits must be at the 4000 -level or higher
At least 6 credits must come from a specified list of policy-focused economics courses(see below) Students in Accelerated program can substitute one of the MPA core or electives courses for one policyfocused economics elective
ECONOM 3367W Law and Economics - Writing Intensive 3
or ECONOM 3367 Law and Economics
ECONOM 3940 Internship 1-3
ECONOM 4311 Labor Economics 3
or ECONOM 4311W Labor Economics - Writing Intensive
or ECONOM 7311 Labor Economics
ECONOM 4315 Public Economics 3
or ECONOM 4315W Public Economics - Writing Intensive
ECONOM 4316

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| or ECONOM 7316 | State and Local Finance |  |
| :---: | :---: | :---: |
| ECONOM 4317 <br> or ECONOM 4317W <br> or ECONOM 7317 | Urban Economics <br> Urban Economics - Writing Intensive <br> Urban Economics | 3 |
| ECONOM 4340 <br> or ECONOM 7340 | Introduction to Game Theory Introduction to Game Theory | 3 |
| ECONOM 4345W <br> or ECONOM 4345 or ECONOM 7345 | Economics of Education - Writing Intensive <br> Economics of Education <br> Economics of Education | 3 |
| ECONOM 4357W or ECONOM 7357 | Health Economics - Writing Intensive Health Economics | 3 |
| ECONOM 4846W <br> or ECONOM 7846 | Economics of Discrimination - Writing Intensive <br> Economics of Discrimination | 3 |
| ECONOM 4940 | Internship in Economics | 1-3 |
| Complimentary fields courses taken from a selected list of Public Affairs courses(that includes the MPA courses listed below)-12 credits |  |  |
| MPA Core Courses |  |  |
| PUB_AF 8110 | Introduction to Public and Nonprofit Management | 3 |
| PUB_AF 8170 | Public Policy Processes and Strategies | 3 |
| PUB_AF 8180 | Research Methods and Inquiry in Public Affairs I | 3 |
| PUB_AF 8181 | Research Methods and Inquiry in Public Affairs II | 3 |
| PUB_AF 8210 | Public Service and Democracy | 3 |
| PUB_AF 8211 | MPA Capstone (Applied Project) | 3 |
| Electives and Specializa | Courses | 15 |
| Courses in Public and Nonprofit Management |  |  |
| PUB_AF 8150 | Collaborative Governance | 3 |
| PUB_AF 8160 | Organizational Dynamics and Leadership | 3 |
| PUB_AF 7340 | Regional and Economic Development Policy | 3 |
| PUB_AF 7540 | Local Government Management | 3 |
| PUB_AF 8510 | Public Budgeting and Taxation | 3 |
| PUB_AF 8520 | Human Resources Management and Development in Public and Nonprofit Sector | 3 |
| PUB_AF 8530 | Strategic Management of Public Service Organizations: People, Information and Money | 3 |
| PUB_AF 8280 | Public Affairs Internship | 3 |
| PUB_AF 8720 | Budgeting and Financial Management in the Nonprofit Sector | 3 |
| Courses in Public Policy |  |  |
| PUB_AF 8190 | Economic Analysis for Public Affairs | 3 |
| PUB_AF 8420 | Public Program Evaluation | 3 |
| PUB_AF 8430 | Public Policy Analysis | 3 |
| PUB_AF 7340 | Regional and Economic Development Policy | 3 |
| PUB_AF 7175 | Early Childhood Policy | 3 |
| PUB_AF 8171 | Environmental Policy | 3 |

## Semester Plan - Applied Track

Below is a sample plan of study, semester by semester. A student's actual plan will vary based on course choices where options are available.

| First Year |  |  |  |
| :---: | :---: | :---: | :---: |
| Fall | CR | Spring | CR |
| ECONOM 1014 |  | 3 ECONOM 1015 | 3 |
| MATH 1160 |  | 5 MATH 1500 | 5 |
| American Government or History |  | 3 ENGLSH 1000 | 3 |
| Lab Science |  | 4 Behavioral Science | 3 |
|  |  | Elective | 1 |
|  |  | 15 | 15 |
| Second Year |  |  |  |
| Fall | CR | Spring | CR |
| ECONOM 4351 |  | 3 ECONOM 4353 | 3 |
| ECONOM 3271 |  | 3 ECONOM 3000+ level elective | 3 |
| Second Language I (or alternative) |  | 3-6 Behavioral or Social Science | 3 |
| Humanities |  | 3 Second Language II (or alternative) | 3-6 |
| Elective |  | 3 Elective | 3 |
|  | 15-18 |  | 15-18 |
| Third Year |  |  |  |
| Fall | CR | Spring | CR |
| ECONOM 4370 |  | 3 ECONOM 4371 | 3 |
| Second Language III (or alternative) |  | 3 Second Language Alternative IV or Elective | 3 |
| Humanities |  | 3 Complementary Field Course | 3 |
| Complementary Field Course |  | 3 Humanities | 3 |
| Elective |  | 3 Elective | 3 |
|  |  | 15 | 15 |
| Fourth Year |  |  |  |
| Fall | CR | Spring | CR |
| ECONOM 4000+ level elective |  | 3 ECONOM 4000+ level elective | 3 |
| ECONOM WI Elective |  | 3 Complementary Field Course | 3 |
| Complementary Field Course |  | 3 Elective | 3 |
| Elective |  | 3 Elective | 3 |
| Elective |  | 3 Elective | 3 |
|  |  | 15 | 15 |

Total Credits: 120-126

## Semester Plan - Quantitative Track

Below is a sample plan of study, semester by semester. A student's actual plan will vary based on course choices where options are available.

| First Year |  |  |
| :--- | :--- | ---: |
| Fall | CR | Spring |
| ECONOM 1014 | 3 ECONOM 1015 | 3 |
| MATH 1160 | 5 MATH 1500 | 5 |
| American Government or History | 3 ENGLSH 1000 | 3 |
| Lab Science | 4 Behavioral Science | 3 |
|  | Elective | 2 |
|  | $\mathbf{1 5}$ | $\mathbf{1 6}$ |

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| Second Year |  |  |  |
| :---: | :---: | :---: | :---: |
| Fall | CR | Spring | CR |
| ECONOM 4351 |  | 3 ECONOM 4353 | 3 |
| ECONOM 3000+ level elective |  | 3 MATH 2300 | 3 |
| MATH 1700 |  | 5 Second Language II (or alternative) | 3-6 |
| Second Language I (or alternative) | 3-6 Behavioral or Social Science |  | 3 |
|  | Humanities |  | 3 |
|  | 14-17 |  | 15-18 |
| Third Year |  |  |  |
| Fall | CR | Spring | CR |
| ECONOM 4371 | 3 ECONOM WI Elective |  | 3 |
| MATH 4140 | 3 STAT 4710 or 4750 |  | 3 |
| Second Language III (or alternative) | 3 Second Language Alternative IV or Elective |  | 3 |
| Humanities | 3 Humanities |  | 3 |
| Complementary Field Course | 3 Elective |  | 3 |
|  | 15 |  | 15 |
| Fourth Year |  |  |  |
| Fall | CR | Spring | CR |
| ECONOM 4370 |  | 3 ECONOM 4000+ level elective | 3 |
| ECONOM 4000+ level elective | 3 Approved Math/Statistics Elective |  | 3 |
| STAT 4510 or 4760 | 3 Elective |  | 3 |
| Elective | 3 Elective |  | 3 |
| Elective | 3 Elective |  | 3 |
| 15 |  |  | 15 |

Total Credits: 120-126

