Rose-Hulman Institute of Technology Course Catalog

Economics

The degree program in Economics is offered by the Department of Humanities and Social Sciences.

The curriculum in Economics is designed to respond to a growing demand for students of economics who are rigorously trained in mathematical methods of analysis. The Rose-Hulman program gives students a broad background in economic analysis and an ability to use sophisticated analytical techniques in their thinking and decision-making. The quantitative training prepares the graduate for further graduate study or for economic analysis work in government or industry.

Students may also obtain a degree with a double major in Economics and another field: mathematics, computer science, etc.

Learning Outcomes:
Upon graduating, Rose-Hulman Economics majors will be able to:

1. explain core economic terms, concepts and theories
2. use economic theory to define, analyze and solve a wide range of problems.
3. collect, process, and interpret data using econometric techniques and statistical inference, especially to test hypotheses and support recommended actions.
4. communicate complex economics topics in both oral and written form.
5. independently undertake in-depth economic analysis.

In order to permit tailoring each student's program to best suit that student's needs and interests, no specific courses other than in Economics are required in the junior or senior years. However, each student's program must satisfy the following minimum requirements:

1. 24 credits of required Economics courses:
    - SV150 Introduction to Microeconomics
    - SV152 Introduction to Macroeconomics
    - IA350 Intermediate Microeconomics
    - IA351 Intermediate Macroeconomics
    - SV450 Introduction to Econometrics
    - XX456 Seminar for HSS Senior Projects
    - XX457 Directed Study for HSS Senior Project
2. 20 additional credits in Economics electives.
3. 27 credits in required Mathematics courses:
    - MA111, 112, 113 Calculus I, II, III
    - MA211, 212 Differential Equations, and Matrix Algebra and Systems of Differential Equations
    - MA223 Engineering Statistics I or MA381 Introduction to Probability
4. 12 additional credits in mathematics or biomathematics other than MA351-356.
5. 36 credits in Humanities and Social Sciences. Each student must fulfill the HSS graduation requirements.
6. 24 credits in Physical or Life Sciences (Biology, Chemistry, Geology and Physics), with at least four credits each in Biology, Chemistry and Physics.
7. 4 credits in Engineering Management

8. 4 credits in Computer Science: CSSE 120
9. CLSK 100 (1 credit)

SUMMARY	Credits
Economics	44
Mathematics	39
Humanities and Social Sciences	36
Physical or Life Science	24
Engineering Management	4
Computer Science	4
Free Electives	40
Other:	
CLSK 100	1
TOTAL	**192**

Plan of Study

Freshman

Fall

Course	Credit
MA 111 Calculus I	5
CLSK 100 College & Life Skills	1
RH 131 Rhetoric & Composition or HSSElective	4
SV 150 Intro to Microeconomics or SV 152 Intro to Macroeconomics	4
Physical or Life Science	4
	Total Credits: 18

Winter

Course	Credit
MA 112 Calculus II	5
CSSE 120 Intro to Software Development	4
RH 131 Rhetoric and Composition or SV 150 Intro to Microeconomics or SV 152 Intro to Macroeconomics	4
Physical or Life Science	4
	Total Credits: 17

Spring

Course	Credit
MA 113 Calculus III	5
RH 131 Rhetoric & Composition or or SV 150 Intro to Microeconomics or or SV 152 Intro to Macroeconomics	4
Physical or Life Science	4
*HSS Elective	4
	Total Credits: 17

Sophomore

Fall

Course	Credit
MA 211 Differential Equations	4
Economics Elective	4
*HSS Elective	4
Physical or Life Science	4
	Total Credits: 16

Winter

Course	Credit
MA 212 Matrix Algebra & Systems of Differential Equations	4
Economics Elective	4
*HSS Elective	4
Physical or Life Science	4
	Total Credits: 16

Spring

Course	Credit
MA 381 Intro to Probability with Applications to Statistics or MA 223 Engineering Statistics	4
Economics Elective	4
*HSS Elective	4
Physical or Life Science	4
	Total Credits: 16

NOTES

*Humanities and Social Science courses are denoted by the prefixes GS, IA, RH, SV, GE, JP, and SP.

Last updated: 09/21/2018

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