ECONOMICS & DATA SCIENCE

This major blends core economics instruction with course work in data science, computer science and mathematics to train students to apply advanced data science techniques to the analysis and formulation of economic problems. Students perform complex calculations, create models, interpret data, identify patterns, and draw conclusions. This degree prepares students to bridge the divide between "Big Data" engineers and end users in a variety of industries.

BACHELOR OF SCIENCES (BS) GENERAL OVERVIEW

Seven courses in Economics:

- Principles of Microeconomics
- Principles of Macroeconomics
- Intermediate Microeconomic Theory
- Intermediate Macroeconomic Theory
- Introduction to Statistics for Economists
- Introduction to Econometrics
- Economic Applications of Machine Learning

Three courses in Mathematics:

- Calculus I
- Calculus II
- Linear Algebra and Linear Differential Equations

Two courses in Computer Science:

- Fundamentals of Computation
- Introduction to Programming

Three courses in Information Technology and Data Science:

- Introduction to Data Science
- Foundations of Data Management
- Programming in Python

One elective course, examples include:

- Applied Machine Learning and Data Mining
- Data Visualization and User Interface Design
- Advanced Econometrics
- Calculus III
- Introduction to Computational Analysis and Biological Data

ACADEMIC OPPORTUNITIES

USC Economics Review: The review is run by an undergraduate editorial board and aims to offer student analysis of high-level topics that are engaging and educational for the university and greater communities.

Omicron Delta Epsilon: ODE, which dates back to 1915, is one of the world's largest and most prestigious academic honor societies. Its objective is to recognize and honor outstanding academic achievements in economics. It also works to promote closer ties between students and faculty in colleges and universities around the globe.

Undergraduate Honors Program: Designed to provide advanced research training in preparation for graduate study, the honors program lets students design and carry out their own independent research projects and graduate with Honors.

For additional information, please consult the USC Catalogue.

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