

# ECONOMICS- COMPUTER SCIENCE JOINT MAJOR

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## A PIONEERING ACADEMIC PROGRAM FOR THE TECH SECTOR

In Spring 2022, Emory joined a small number of elite institutions, including MIT, Cornell, and Brown that offer a joint Economics/Computer Science major.

This unique academic program is designed to provide students with a synergistic curriculum that combines economic reasoning; empirical methods and data analytics; knowledge of machine learning; and artificial intelligence.



## OBTAIN SKILLS THAT ARE IN DEMAND

Going beyond what computer science or economics majors can individually offer, the Econ/CS joint major equips its graduates to understand how data can be used to explain economic phenomenon in the digital age, preparing students for future success.

As the tech industry continues to grow, those who understand the depth and nuances of both Economics and Computer Science can help address issues, oversights, policies, and regulations for safeguarding of a smooth transition to digital economy.

For more information:

Visit the Economics Department website at

<http://economics.emory.edu>

Contact our Undergraduate Program Coordinator at

[econungrad@emory.edu](mailto:econungrad@emory.edu) or set an appointment

using this QR code:



# ECONOMICS- COMPUTER SCIENCE JOINT MAJOR REQUIREMENTS

## 3 Math Foundation Courses

- **Math 111:** Calculus I
- **Math 210:** Advanced Calculus for Data Sciences or equivalent by department approval
- **Math 221:** Linear Algebra

## 4 Computer Science Foundation Courses

- **CS 170:** Introduction to Computer Science
- **CS 171:** Introduction to Computer Science II
- **CS 224:** Foundation of Computer Science
- **CS 253:** Data Structures and Algorithms

## 4 Economics Foundation Courses

- **Econ 101:** Principles of Microeconomics
- **Econ 112:** Principles of Macroeconomics
- **Econ 201:** Intermediate Microeconomics
- **Econ 212:** Intermediate Macroeconomics

## 4 Methods, Analysis, and Systems Courses

- **Econ 220:** Probability and Statistics for Economists
- **Econ 320:** Econometrics
- **CS 325:** Artificial Intelligence
- **CS 334:** Machine Learning

## 2 Electives

Choose from: **Econ 312:** Economics of Digital Assets, **Econ 421:** Microeconometric Data Analytics, **Econ 422:** Macroeconomics & Machine Learning, **Econ 487:** Game Theory & Economic Activity, **CS 329:** Computational Linguistics, **CS 370:** Computer Science Practicum, **CS 377:** Database Systems, **CS 470:** Data Mining, **Math 346:** Linear Optimization

## 1 Capstone Course

- **Econ 480/CS 480:** Computing Methods in Economics

This program is delivered to students in collaboration between Emory College of Arts and Sciences Departments of Economics and Computer Science.