

## Second Major in Financial Engineering | FinEn

The Financial Engineering Major is offered to any undergraduate day division student as a second major only. This major consists of 30 units of specific coursework through both the School of Engineering and the Olin Business School.

### Background Coursework (18 minimum units)

Calculus III:	Math 233	Matrix Algebra:	Math 309
Computer Science:	CSE 131	Microeconomics:	MEC 290 or Econ 4011
Differential Equations:	Math 217	Managerial Stats:	QBA 121 or ESE 326 or Math 439 or Econ 413

### Professional Requirements (24 minimum units)

ACCT 2610: Principles of Financial Accounting	ESE 403: Operations Research (or ESE 415)
CSE 240: Logic and Discrete Mathematics	ESE 427: Financial Mathematics
CSE 247: Algorithms and Data Structures	FIN 340: Capital Markets
CSE 417T: Big Data and Machine Learning (or CSE 427S)	FIN 441: Investments

### Olin Electives (6 minimum units)

**Electives: at least 6 units from the following:**

Fin 500Q: Quantitative Risk Management	Fin 551: Advanced Credit Modeling (1.5 units)
Fin 537: Advanced Derivative Securities	Fin 552: Fixed Income Derivatives (1.5 units)
Fin 539: Mathematical Finance (1.5 units)	

Students must meet the prerequisites for each course as listed in their course descriptions. Background courses may be taken out of residence with advisor approval. Only one major course (3 units) may be taken out of residence providing the necessary approval is given. Engineering courses are approved by the Engineering School and Business classes by the Olin School. Course sequencing requires that ESE 427 to be taken after FIN 340 and before enrolling in any 500 level Finance courses.

BSBA students: Only one course can overlap with your BSBA degree and this second major.

- No professional courses can overlap with your BSBA and a minor.
- Finance majors may count one Finance course towards both majors.
- You must have 12 unique units for each major.

Non-BSBA students earning a second major or minor within Olin must have 12 unique Olin units for each major and minor.

Engineering students may double count a maximum of 12 units for this major and their CS or Engineering undergraduate degree. Background coursework is excluded.

To apply for this major, students must have a 3.0 or higher cumulative GPA as well as 3.0 or higher in your Business and Engineering courses. You must also have completed at least one Olin and one SEAS course prior to declaring this major.

BSBA students should meet with Yoon Groves prior to declaring. Engineering students should contact Trevor Bilhorn in the Engineering School. Students in the College may contact either Ms. Groves or Mr. Bilhorn.