



Graduate Certificate in Financial Engineering



PennState
World Campus

A world of possibilities.
Online.

Graduate Certificate in Financial Engineering

Demand for experts at analyzing and managing quantitative data (colloquially known as quants) is on the rise. Many companies are seeking to leverage big data to analyze critical financial issues and drive their decisions. Position yourself for advancement by earning a Graduate Certificate in Financial Engineering, available online through Penn State World Campus.

This graduate program integrates econometric software tools, statistics, and financial theory—offering you the technical know-how to develop financial models and analytical acumen to improve decision-making.

Whether you wish to gain a deeper understanding of an organization's financial risk or leverage derivatives to predict market behavior and create successful data-driven trading strategies, building expertise in financial engineering can help set you apart to hiring managers.

Convenient Online Format

All courses are asynchronous, meaning you are not required to log in at a particular time each week. You can complete your weekly assignments anytime, anywhere. This 100% online format gives you the flexibility to earn a credential on a part-time basis while you continue to gain valuable work experience.

Step Up to a Master's Degree

This certificate is an excellent stand-alone credential, and the credits earned for it can also be applied toward the financial engineering concentration of the Penn State Online MBA, also available through Penn State World Campus. A separate application and program acceptance are required.



Online Course Work

MFE 801: Econometric Analysis

Aims to develop the basic econometric estimation and hypothesis testing tools necessary to analyze and interpret economic data; focuses on the theoretical foundations of econometric analysis and strategies for applying these methods.

MFE 527: Derivative Securities

Examines the important financial characteristics of derivative securities such as swaps, forwards, futures, and options, as well as their roles in managing individual and corporate financial risk. Basic valuation concepts as well as applications and strategies will be emphasized.

MFE 816: Financial Modeling

Focuses primarily on developing spreadsheet applications and using the case method to apply decision-making procedures to real-world problems in finance areas; exposes students to topics including financial ratio analysis, financial forecast, regression analysis, portfolio management, asset valuation, and risk management.

You can earn this respected credential on a part-time basis in as little as 12 months.

To learn more about the Graduate Certificate in Financial Engineering, please visit:

worldcampus.psu.edu/financeengineer





Program Benefits

Career-Ready Skills

The program takes a learning-by-doing approach by integrating hands-on activities, even in online courses. This pragmatic approach helps to create graduates who are prepared to apply concepts in real-world settings, making our alumni highly attractive to employers.

Rapid ROI

Online graduate certificate programs from Penn State are designed to provide fundamental knowledge rapidly and efficiently.

World-Class Education

This program is delivered in partnership with the Penn State Behrend Black School of Business, which carries the elite AACSB accreditation, an honor reserved for the top 5% of business schools worldwide.

Support Services

You will have access to a full array of support services, including scheduling assistance, career counseling, and 24/7 technical support. As a globally recognized leader in online education, Penn State World Campus understands the unique needs of adult learners.



Who Should Apply?

Applicants should have a bachelor's degree in a business or STEM-related discipline and possess fundamental competence in finance.

Apply Today

To pursue the Graduate Certificate in Financial Engineering, review the program's admissions requirements and complete the online application.

Visit: worldcampus.psu.edu/financeengineer

Contact Us

Admissions Questions

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