

## Course Description

### FEP311 Introduction to Financial Engineering

This course aims to build up the basic knowledge on various financial instruments as well as quantitative models for investment management. We study equities, fixed-income securities, and derivatives and discuss about their pricing models and investment strategies.

### FEP321 Analysis and Probability for Finance

This course introduces some basic concepts in mathematical analysis and probability for financial applications. Some topological ideas, differentiation, and integration of real functions, convergence of function sequences are covered. Finally, students learn martingales in finite sample space.

### FEP411 Structuring and Pricing of Financial Products

This course provides the mathematical background and efficient implementation skills required for the quantitative jobs in financial industry. We introduce the risk-neutral pricing models (through binomial and Black-Scholes frameworks), and guide the financial software design in step-by-step manner. The students will have a chance to design their own financial derivatives.

★ For the description of elective courses, please refer to the sections of the offering departments.