



Shih Chien University

STP Program (Dec 22-Jan 16)

ECON 453 Financial Economics

Course Outline

Course Code: ECON 453

Instructor: TBA

Home Institution: TBA

Office Hours: TBA

Email: TBA

Credits: 4

Class Hours

This course will have 144 class hours, including 50 lecture hours, 30 professor office hours, 20-hour TA discussion sessions, 10-hour review sessions, 34-hour additional classes.

Course Description:

This course offers a comprehensive introduction to the fundamental principles of financial economics, establishing a robust foundation for students who wish to pursue more advanced studies or careers in finance and related fields. It is meticulously designed to cover essential financial concepts and techniques, enabling students to understand and analyze complex financial scenarios with confidence.

The course delves into specialized topics such as: time optimization, capital structure, futures markets, discounted cash flow (DCF) analysis, portfolio theory, options pricing and strategies.

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Prerequisites: Students should have a foundational understanding of ECON Statistics and Microeconomic Theory courses in previous semesters.

Course Objectives:

A key focus of the course is on critical financial principles such as the **time value of money**, which underpins the concept that a dollar today is worth more than a dollar in the future due to its potential earning capacity. Students will learn to apply this principle in a variety of financial contexts, including investment analysis, loan amortization, and retirement planning.

Another core area of the course is **asset valuation**, where students will explore different methods to determine the value of financial assets such as stocks, bonds, and real estate. This section includes a deep dive into valuation models like the Dividend Discount Model (DDM) for stocks and the Net Present Value (NPV) approach for investment projects. The course will also cover the role of market efficiency and the impact of external factors on asset prices.

Risk management is also a critical component of this course. Students will gain insights into identifying, assessing, and mitigating financial risks using tools like diversification, hedging, and insurance. The curriculum includes practical approaches to managing risks associated with financial markets, corporate finance, and personal investments.

The course delves into specialized topics such as:

- **Time Optimization:** Students will learn how to make strategic financial decisions that maximize returns over different time horizons. This includes

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understanding opportunity costs and applying optimization techniques in capital budgeting.

- **Discounted Cash Flow (DCF) Analysis:** The course will guide students through the process of evaluating investment opportunities by calculating the present value of expected future cash flows. This method is crucial for making informed decisions in capital investments and business acquisitions.
- **Futures Markets:** Students will explore how futures contracts work, the role of futures markets in hedging and speculation, and how to integrate futures into broader investment strategies.
- **Portfolio Theory:** The course covers modern portfolio theory, teaching students how to construct and manage investment portfolios that balance risk and return effectively. This includes an introduction to key concepts such as the efficient frontier, risk diversification, and the Capital Asset Pricing Model (CAPM).
- **Options Pricing and Strategies:** Students will learn about financial derivatives, particularly options, including how to price them using models such as the Black-Scholes model. They will also study options strategies like hedging, speculation, and income generation through covered calls and protective puts.
- **Capital Structure:** The course will address how firms make financing decisions regarding the mix of debt and equity. Students will examine theories such as the Modigliani-Miller theorem and understand the trade-offs between debt financing and equity financing.

Throughout the course, there is a strong emphasis on the **practical**



application of these financial concepts. Real-world case studies and scenarios will be used to demonstrate how financial theories and tools can assist households in managing personal finances, investments, and savings strategies. Simultaneously, businesses will learn how to optimize financial performance, manage capital structure, and navigate financial markets to support strategic objectives.

Required Textbooks:

1. "Principles of Corporate Finance" by Richard A. Brealey, Stewart C. Myers, and Franklin Allen
2. "Investments" by Zvi Bodie, Alex Kane, and Alan J. Marcus

Homework and Exams: There will be weekly homework assignments, two midterms and a final.

Grading & Evaluation:

Attendance and participation:	10%
Homework:	30%
Midterm 1:	20%
Midterm 2:	20%
Final:	<u>20%</u>

Grading System (1 ~ 100):

A+ : 96 - 100	A : 91 - 95
B+ : 86 - 90	B : 81 - 85
C+ : 76 - 80	C : 71 - 75
D+ : 66 - 70	D : 60 - 65
F : 0 - 59	
Pa : Pass	Fa : Fail

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Course Schedule

Lectures	Topics	Note
Week 1 Day 1	Decision-Making Under Uncertainty	Explore how individuals and firms make financial decisions when outcomes are uncertain.
Week 1 Day 2	Portfolio Choice	Learn about portfolio theory, risk-return trade-offs, and constructing optimal investment portfolios.
Week 1 Day 3	Pricing Discounted Cash Flows	Understand the methods of valuing investments using discounted cash flow (DCF) analysis.
Week 1 Day 4	Midterm Exam 1	
Week 2 Day 1	Systems of Financial Markets	Study the structure and function of financial markets, including capital markets and money markets.
Week 2 Day 2	Arbitrage and Option Pricing	Examine arbitrage opportunities and learn the fundamentals of options pricing using financial models.
Week 2 Day 3	Midterm Exam 2	
Week 3 Day 1	Random Observations and Asset Pricing	Analyze how random market movements affect asset prices and explore models like the Efficient Market Hypothesis (EMH).
Week 3 Day 2	Real Options	Discover how to evaluate investment opportunities using real options analysis, often used in corporate finance.
Week 3 Day 3	Discussion Session led by TA	
Week 4 Day 1	Firms and Financial Markets	Delve into the interaction between firms and financial markets, including capital raising and market strategies.
Week 4 Day 2	Review Session Lec.1.1-6.3	



Week 4 Day 3	Discussion Session led by TA	
Week 4 Day 4	Final Exam	

Student Responsibilities and Expectations

The primary course content will be delivered through lectures, with a dedicated discussion session held every Friday. These sessions offer a valuable opportunity for students to engage with the teaching assistant (TA) to discuss course material and address assigned problems.

To succeed in this course, students are expected to:

- **Stay on Track:** Consistently keep up with the course material as it is presented. This involves attending all lectures and discussion sessions, arriving punctually, and allocating sufficient time for homework and study.
- **Manage Absences:** If a student must miss a class, it is their responsibility to promptly obtain the notes and thoroughly review the missed material before the next session. Staying up to date is crucial to maintaining progress in the course.
- **Seek Help When Needed:** Students are highly encouraged to ask questions and request additional support as needed. Proactively seeking assistance will help prevent falling behind.
- **Participate Actively:** Engagement during both lectures and discussion sessions is expected. Students should arrive prepared to contribute thoughtfully to discussions and classroom activities.
- **Maintain Classroom Etiquette:**
 - Turn off cell phones and set aside any unrelated materials before class

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begins.

- Demonstrate respect towards peers and the instructor by minimizing distractions.
- Avoid late arrivals and early departures, as these are disruptive and will not be tolerated.

By adhering to these expectations, students will create a positive learning environment and enhance their understanding of the course material.