

Theory of Finance

Course Syllabus

Lecturer: Magomet Yandiev

Class Teacher: Magomet Yandiev

CONTACT INFORMATION

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COURSE DESCRIPTION

Theory of Finance is a one semester long course for final year students at Faculty of Economics with specialization in Bachelor of Economics. The course is taught in English.

Course Objectives

Learn about Structure and Infrastructure of Finance, time value of money, DCF model and risk vs. return models.

METHODS

The following methods and forms of study are used in the course:

- Lectures
- Written homework assignments
- Practice sessions covering homework exercises and additional exercises
- Self-study

LITERATURE

1. Obligatory:

- Eugene F. Fama, Merton H. Miller. The Theory of Finance. Dryden Press, 1971

2. Also recommended:

- Black F., Scholes M. The Pricing of Options and Corporate Liabilities // Journal of Political Economy, May-June 1973
- Cox J., Ross S., Rubinstein M. Option pricing: a simplified approach. Journal of financial economics, March 1979

- Fama E. Efficient capital markets: a review of theory and empirical work, Journal of finance, XXV, #2 1970
- Ross S. The arbitrage theory of capital asset pricing, Journal of economic theory, December 1970
- www.ssrn.com

Additional literature may be distributed during the course.

EVALUATION

A central part of the course is homework assignments. Each of them contains a date by which you need to hand it in to the teacher of the practice sessions. Homework assignments will be graded. The teacher of the practice sessions will frequently ask you to present a homework exercise in class. You are allowed to work in groups.

Your performance in this course will be evaluated on the basis of the following:

- Written homework;
- Participation in lectures and practice sessions. This includes, your presence, plus, your presence should be active;
- First term exam;
- Tests;
- Final exam.

Grade Determination

First term exam grade:	30%;
Tests grade	20%;
Final exam grade	50%.

COURSE OUTLINE

Introduction to Finance and Course Overview

History and Origins of Finance. Structure and Infrastructure of Finance.

Chapter 1. Financial Mathematics

Time value of money. Discount rates. Compound interest. DCF: Present Value (PV), Future Value (FV). Annuity and perpetuity formulas.

Chapter 2. Value of Financial Assets

PV of Loans, Bonds and Stocks. Term structure of interest rates. Yield to Maturity. Duration. Immunization of bond portfolios.

Chapter 3. Terms of investment decisions

Net present value (NPV), Internal Rate of Return (IRR), Profitability Index (PI.)

Chapter 4. Risk and Return

Efficient Market Hypothesis (EMH). Risk Free Return. Standard Deviation of Return. CAPM and Beta, VaR.

Chapter 5. Risk, Return and probability

Binomial option pricing model. Black-Scholes model. Real option.

Chapter 6. Modern portfolio theory

Portfolio diversification. Negative correlation between assets. Effective set of portfolios. Markowitz's model. Tobin's model.

Chapter 7. Corporate Finance

Goal - increasing the value of the company's capital. Tools for achieving objectives: capital structure, dividend policy, corporate governance, etc. WACC. Economic Value Added, EVA.

Chapter 8. Islamic Finance

Goal - doing business in accordance with religious requirements. Basic requirements and restrictions. Financial instruments. Pricing of financial assets. Exchange infrastructure.