

**THE INSTITUTE OF ECONOMIC AND POLITICAL STUDIES**

**CAMBRIDGE**

**THE THEORY OF FINANCE**

*Prerequisites: Microeconomics, and Probability and Statistics*

**Aim:**

The main aim of this course is to introduce students to the fundamental analytical concepts and the main models used in the modern theory of finance. This is a supervision-based course (as opposed to a lecture-based course); students are expected to be highly self-motivated, and to prepare themselves before each supervision so that they are able to give an informed and personal contribution to the discussion. The guidance provided for each supervision (selected readings, test questions, sample data) will guide student along a structured learning pathway to achieve the course's aims.

**Syllabus:**

Supervisions in the Theory of Finance aim to provide students with a broad introduction to the process underlying investment and financial decision-making by investors (either firms or individuals). The material covered will be broken down into two main areas – investment decision-making and corporate finance. During the first part of the course – investment decision-making – attention is focused on the microeconomic aspects of decision making under uncertainty. Topics such as time value of money, utility functions, modern portfolio theory and capital assets pricing model (CAPM) will be covered. The second part of the course covers issues such as the optimal capital structure of a firm and corporate financing decisions. A detailed course outline is shown in the next page.

**Expectation from the students:**

This course outline contains essential and supplementary reading for all supervision. If any hand out needs to be distributed it will be arranged one week prior to the targeted supervision. Students will be well prepared in advance for the each supervision. This will enable the supervisor and the students to interact in a much more fruitful manner – making the student experience one of “active learning”. A prior knowledge of the topic through reading of the materials will also enable the students to ask valuable questions. Students are also requested to communicate with the supervisor through e-mail if they face any difficulty in performing the assignments set by the supervisor, so that supervision time is not taken up by clarifying very basic issues, but can be devoted mostly to reviewing, interpreting, and expanding upon the results of the assignments.

**Assessment:**

The assessment of this course is made up of the following components:

<i>Components</i>	<i>Contribution towards Grade (%)</i>
Class participation & attendance	10%
Assignments (Best 10 out of 11)	40%
Project	25%
Take Home Examination	25%

**Course Works:**

A number of questions will be set each week on the topic covered and the students will be expected to attempt all of the questions. On all occasions during the semester, this work will be collected and a mark will be assigned to the students based on the work submitted. The best ten performances out of this eleven course works will contribute towards the final grade of the students.

**Project:**

The project for this course will consist of a 4,000-word (upper limit) written work based on calculations using real life dataset. This will be on portfolio management, mostly based on the CAPM model to evaluate risk and return of different assets individually and in portfolio settings. The project description along with a dataset will be handed out in week five, February 10, 2003 (due in week nine, March 10, 2003). As students have access to computer facilities, it is expected that the project will be typed and the calculations will be done in MS Excel.

**Take Home Examination:**

There will be a take home examination consisting of four questions drawn from the various topics covered in the supervisions. Each of the answers for these essay type questions should not exceed the word limit of 500 words. The examination question paper will be handed out in week ten, and due back completed in week eleven. Students are expected to submit word-processed answers for this examination.

**Computer Literacy:**

Students are expected to use Microsoft Excel for their project work, and sometimes to do the weekly assignments. The project on Portfolio Management in particular will require use of MS Excel, and students should refresh their familiarity with Excel's main features and capabilities..

**Course Outline:**

A detailed course outline is provided below along with the essential reading (from the main textbook) against each topic. Students are expected to go through these chapters before attending any supervision:

<i>Week / Date</i>	<i>Subject/Topic</i>	<i>Chapters BM&amp;A*</i>	<i>from</i>
<b>1</b>	Review of Financial Concepts, Mathematics and Statistics	2, 3	
<b>2</b>	Bond Valuation	4	
<b>3</b>	Stock Valuation	5	
<b>4</b>	Risk and Portfolio Diversification	8-10	
<b>5</b>	Capital Budgeting	11-13	
<b>6</b>	Financing Decisions and Market Efficiency	14-16	
<b>7</b>	Review of Course Works and MS Excel Demonstration for Portfolio Management	n.a.	
<b>8</b>	Payout Policy and Capital Structure	17-20	
<b>9</b>	Options	21-23	
<b>10</b>	Risk Management (domestic and international)	27-28	
<b>11</b>	M&A and Corporate Governance	32-34	

*\* Refers to the Main Text*

## READING LIST

**Brealey, R.A.,  
Myers, S. C. and  
Allen, F. (2008)**                      **Principles of Corporate Finance, 9<sup>th</sup> Edition**

There is no single textbook that adequately covers all areas of this course. Instead students may find it helpful to consult the following materials too beside the main text.

**Copeland, T. E. and  
Weston, J. F. (2005)**                      ***Financial Theory and Corporate Policy, 4<sup>th</sup> ed***

Elton, E. J. And                      *Modern Portfolio Theory and Investment Analysis, 8<sup>th</sup> ed*  
Gruber, M. J. (2003)

Hull, J. (2006)                      *Options, Futures and Other Derivative Securities, 9<sup>th</sup> ed.*

From time to time notes may be given out in class or additional reference material may be recommended.