Principles of finance

Morelec Erwan

Cursus

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem.</th>
<th>Type</th>
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<tr>
<td>Energy Science and Technology</td>
<td>MA1</td>
<td>Opt.</td>
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<td>Managmt, tech et entr.</td>
<td>MA1,</td>
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Language: English  
Credits: 4  
Session: Winter  
Exam: Written  
Semester: Fall  
Workload: 120h  
Weeks: 14  
Hours: 4 weekly  
Lecture: 2 weekly  
Exercises: 2 weekly

Remarque

Course given twice. See the MTE website: http://cdm.epfl.ch/mte/study-plan

Summary

This course provides a market-oriented framework for analyzing the valuation of securities, portfolio decisions, capital budgeting and financing decisions within firms, and derivatives

Content

1. Introduction to finance  
2. Arbitrage, discounting, and the term structure of interest rates  
3. Introduction to the valuation of bonds and stocks  
4. Risk and return  
5. Capital Budgeting  
6. Capital Structure Decisions  
7. Financial derivatives

Keywords

Corporate Finance, Valuation, Portfolio Choice, Arbitrage Pricing, Option Pricing Theory

Learning Prerequisites

Required courses
No prerequisite

Recommended courses
No prerequisite

Important concepts to start the course
No prerequisite

Learning Outcomes

By the end of the course, the student must be able to:
• Understand standard valuations models used in financial markets
• Understand the trade-off between risk and return
• Develop an ability to make portfolio decisions
• Develop an ability to analyze and evaluate firms and investment projects
• Understand the determinants of financing decisions
• Understand derivatives markets and their benefits and costs

Transversal skills
• Plan and carry out activities in a way which makes optimal use of available time and other resources.
• Use a work methodology appropriate to the task.
• Communicate effectively, being understood, including across different languages and cultures.
• Communicate effectively with professionals from other disciplines.
• Give feedback (critique) in an appropriate fashion.
• Evaluate one's own performance in the team, receive and respond appropriately to feedback.
• Keep appropriate documentation for group meetings.
• Negotiate effectively within the group.
• Resolve conflicts in ways that are productive for the task and the people concerned.
• Assess one's own level of skill acquisition, and plan their on-going learning goals.
• Use both general and domain specific IT resources and tools
• Access and evaluate appropriate sources of information.
• Collect data.

Teaching methods
Lectures, homework, exercises

Assessment methods
50% Homework
50% Final exam
Homework is open book. Final exam is closed-book.

Supervision
Office hours No
Assistants Yes
Forum No

Resources
Bibliography
Berk and DeMarzo, Corporate Finance, 4th edition, Pearson 2017

Ressources en bibliothèque
• Corporate Finance / Berk

Notes/Handbook
Available on the Moodle site

Prerequisite for
Venture capital