

MGT-482

**Principles of finance**

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<b>Cursus</b>	<b>Sem.</b>	<b>Type</b>
Energy Science and Technology	MA1, MA3	Opt.
Management, Technology and Entrepreneurship minor	H	Opt.
Managmt, tech et entr.	MA1, MA3	Obl.
Robotics	MA1, MA3	Opt.

Contact language	English
Credits	5
Withdrawal Session	Unauthorized Winter
Semester	Fall
Exam	Written
Workload	150h
Weeks	14
<b>Hours</b>	<b>4 weekly</b>
Lecture	2 weekly
Exercises	2 weekly
<b>Number of positions</b>	<b>120</b>

**Summary**

The course provides a market-oriented framework for analyzing the major financial decisions made by firms. It provides an introduction to valuation techniques, investment decisions, asset valuation, financing decisions, and other financial decisions of firms.

**Content**

1. Introduction to finance
2. Arbitrage, discounting, and interest rates
3. Introduction to the valuation of bonds and stocks
4. Risk and return
5. Evaluating firms and projects/innovations
6. Financing firms and projects/innovations
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

20% Homework

30% Case study

50% Final exam

Homework and case study are open book. Final exam is closed-book.

### Resources

#### Bibliography

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

#### Ressources en bibliothèque

- [Corporate Finance / Berk](#)

#### Notes/Handbook

Available on the Moodle site

#### Moodle Link

- <https://go.epfl.ch/MGT-482>

### Prerequisite for

Venture capital