

FIN-522

**Venture capital**

Fahlenbrach Rüdiger

Cursus	Sem.	Type
Financial engineering minor	H	Opt.
Financial engineering	MA1, MA3	Opt.
Management, Technology and Entrepreneurship minor	H	Opt.
Managmt, tech et entr.	MA1, MA3	Opt.

Language of teaching	English
Credits	4
Session	Winter
Semester	Fall
Exam	Written
Workload	120h
Weeks	14
<b>Hours</b>	<b>3 weekly</b>
Lecture	3 weekly
<b>Number of positions</b>	

**Remark**

MA3 only

**Summary**

The course applies finance tools and concepts to the world of venture capital and financing of projects in high-growth industries. Students are introduced to all institutional aspects of the venture capital industry. Students analyze various aspects of VC finance using an investors' perspective.

**Content**

1. Introduction to venture capital
2. Methods for valuation of high-growth companies
3. Venture capital investing and option pricing analysis
4. Impact investments
5. Buyouts

**Keywords**

Venture capital - Private equity - Finance of innovation - Valuation - Option pricing theory

**Learning Prerequisites****Required courses**

Introduction to finance

**Recommended courses**

Investments

**Learning Outcomes**

By the end of the course, the student must be able to:

- Describe all the institutional aspects of the venture capital industry.
- Give an example of the asymmetric information problem that drives contracting in the venture capital industry
- Recall discounted cash-flow and comparables valuation techniques
- Apply finance tools and concepts to the world of venture capital and financing of projects in high-growth industries.
- Use option pricing techniques to price the preferred securities issued to venture capitalists
- Describe how leveraged buyout transactions work

### Transversal skills

- Plan and carry out activities in a way which makes optimal use of available time and other resources.
- Give feedback (critique) in an appropriate fashion.
- Take feedback (critique) and respond in an appropriate manner.
- Summarize an article or a technical report.

### Teaching methods

Lectures, homework, case studies, expert talks, exercises

### Assessment methods

30% Homework and case studies

25% Midterm exam

45% Final exam

Homework is open book. Midterm and final exam are closed-book.

### Supervision

Office hours	Yes
Assistants	Yes
Forum	No

### Resources

#### Virtual desktop infrastructure (VDI)

No

#### Bibliography

Venture Capital and the Finance of Innovation by Andrew Metrick and Ayako Yasuda, John Wiley and Sons.

#### Ressources en bibliothèque

- [Venture Capital and the Finance of Innovation / Metrick](#)

#### Moodle Link

- <https://go.epfl.ch/FIN-522>