

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>
Courses	3 weekly
<b>Number of positions</b>	

**Remark**

MA3 only

**Summary**

The course applies finance concepts to the world of venture capital (VC). Students are introduced to all institutional aspects of the VC industry. Students analyze the relations between investors, general partners, and entrepreneurs, including limited partnership agreements as well as term sheets

**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

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>