

MGT-414

Technology & innovation strategy

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| Cursus | Sem. | Type |
|---|----------|------|
| Digital Humanities | MA2, MA4 | Opt. |
| Management, Technology and Entrepreneurship minor | E | Opt. |
| Managmt, tech et entr. | MA2, MA4 | Opt. |

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|----------------------------|---------------------|
| Language of teaching | English |
| Credits | 3 |
| Session | Summer |
| Semester | Spring |
| Exam | During the semester |
| Workload | 90h |
| Weeks | 14 |
| Hours | 3 weekly |
| Lecture | 1.5 weekly |
| Project | .5 weekly |
| Number of positions | |

Remark

Special schedule. See the MTE website: <https://go.epfl.ch/mte>

Summary

This course focuses on the economic and organizational conditions that shape technological innovation by firms. The intent is for students to learn core concepts that can make innovation initiatives within a firm more successful, and to then apply those concepts to real business problems and cases.

Content

Strategic management differs from other courses in management in that it focuses on the firm as the unit of analysis. Accordingly, the course objectives are threefold: (1) to develop an understanding of how innovations emerge and gain adoption in the marketplace; (2) to gain insights into how firms can transform themselves into effective innovators; and (3) to evaluate strategies and structures that enhance venture success. The course is particularly applicable for students interested in working for, or learning about, technology-oriented companies. The class MGT404 is a useful follow-up to the present class.

Keywords

Technology
Innovation
Strategy

Learning Outcomes

- Explain core concepts for technology and innovation strategy
- Transpose concepts to real-world context
- Take into consideration ambiguity and uncertainty in a strategic analysis

Transversal skills

- Communicate effectively, being understood, including across different languages and cultures.
- Evaluate one's own performance in the team, receive and respond appropriately to feedback.
- Identify the different roles that are involved in well-functioning teams and assume different roles, including leadership roles.
- Keep appropriate documentation for group meetings.

- Resolve conflicts in ways that are productive for the task and the people concerned.
- Access and evaluate appropriate sources of information.
- Take feedback (critique) and respond in an appropriate manner.
- Summarize an article or a technical report.

Teaching methods

The course will be taught through readings, lectures, discussions, individual research, group-organized research, and group presentations. We will analyze real companies in often fast changing environments. Students will be placed in the role of a key decision maker and asked to address issues related to the management of technical and innovative products and services for that firm.

Expected student activities

- Attending lectures
- Working in group
- Reading written material
- Preparing case studies
- Debating/arguing

Assessment methods

- Class participation: 25%
- Project (slide deck + presentation in class): 25%
- Final exam: 50%

Supervision

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|--------------|-----|
| Office hours | Yes |
| Assistants | Yes |
| Forum | No |

Resources

Virtual desktop infrastructure (VDI)

No

Bibliography

Schilling M.A. Strategic Management of Technological Innovation. 6th Edition. New York: McGraw-Hill Education, 2020.

Ressources en bibliothèque

- [Strategic Management of Technological Innovation / Schilling](#)

Moodle Link

- <https://go.epfl.ch/MGT-414>

Prerequisite for

