

MGT-414

Technology & innovation strategy

Younge Kenneth

| Cursus | Sem. | Type |
|---|----------|------|
| Digital Humanities | MA1, MA3 | Opt. |
| Energy Management and Sustainability | MA1, MA3 | Opt. |
| Management, Technology and Entrepreneurship minor | H | Opt. |
| Managmt, tech et entr. | MA1, MA3 | Opt. |

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|----------------------------|---------------------|
| Language of teaching | English |
| Credits | 4 |
| Withdrawal Session | Unauthorized Winter |
| Semester | Fall |
| Exam | During the semester |
| Workload | 120h |
| Weeks | 14 |
| Hours | 3 weekly |
| Lecture | 3 weekly |
| Number of positions | 55 |

It is not allowed to withdraw from this subject after the registration deadline.

Summary

Students will learn core concepts that can make innovation projects more successful and profitable, and to then apply those concepts to real business cases of known successes and failures with a focus on the economic and organizational conditions that advance technological innovation by firms.

Content

This course introduces the student to the economic foundations of strategic management, and builds on those concepts to analyze the drivers of technological change, the sources of innovation, the role of incentives, the economics of information, the protections of intellectual property, and the importance of network effects and economies of scale. Building on the core concepts, the course then examines the strategic tradeoffs made by innovating companies related to decision making under uncertainty, tolerance for failure, the development of firm-specific human capital, the development of corporate culture, the timing of first-mover advantages and disadvantages, financing decisions, and alternative modes of competition and cooperation, including technology alliances, joint ventures, and corporate venture capital. Accordingly, the course objectives are three fold: (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.

Learning Outcomes

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

- Assess / Evaluate strategies and structures that enhance success.
- Examine how innovations emerge and gain adoption in the marketplace
- Investigate theory and best practices associated with converting new ideas to new products, technologies and businesses
- Analyze how firms can transform themselves into effective innovators
- Critique different theoretical perspectives on innovation

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.

Assessment methods

Continuous control combining:

| | | |
|-----|----------------------------------|---------------------------|
| 15% | Midterm Exam (Individual) | Administered during class |
| 10% | Innovation Report (Individual) | |
| 15% | Investment Report (Individual) | |
| 20% | Team Project (Team) | |
| 25% | Final Exam (Individual) | |
| 15% | Class Participation (Individual) | |

Resources

Bibliography

A reading list will be distributed at the beginning of the course.
A case packet will be made available online for purchase.

Prerequisite for

MGT-411 Innovation Management