EPFL

MGT-439 | **Information technology & digital strategy**

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

Language of teaching	English
Credits	4
Withdrawal	Unauthorized
Session	Winter
Semester	Fall
Exam	During the semester
Workload	120h
Weeks	14
Hours	**3 weekly**
Courses	3 weekly
Number of positions	**70**

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

Summary

In this course students should gain a broad-based knowledge of the ever-changing world of information technology and how it relates to corporate strategy, digital business innovation, and their impact on government, work, and society.

Content

- An introduction to digital business and the elements of its infrastructure.
- Explore current, and identify possible future, information technology and digital innovation trends, including big data and analytics, blockchain, crowdsourcing, outsourcing, and operations.
- Identify strategies for electronic commerce and digital business and how those strategies relate to and support business models.
- Develop a critical understanding of the societal impacts of digitalization.

Keywords

Information technology - Information systems - Strategic use of Information Systems - e-commerce - outsourcing - crowdsourcing - digital innovation - digital strategy - digital governance - social study of technology

Learning Outcomes

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

- Describe digital business and the elements of its infrastructure
- Explore current, and identify possible future, information technology trends and digital innovation trends, including big data and analytics, blockchain, crowdsourcing, outsourcing and operations
- Identify strategies for electronic commerce and how those strategies relate to and support business models
- Identify strategies for digital innovation and how those strategies relate to and support business models
- Describe digital innovation and the elements of its infrastructure
- Interpret the digital transformation of organizations

Transversal skills

- Set objectives and design an action plan to reach those objectives.

• Plan and carry out activities in a way which makes optimal use of available time and other resources.

• Identify the different roles that are involved in well-functioning teams and assume different roles, including leadership roles.

• Take account of the social and human dimensions of the engineering profession.

• Communicate effectively with professionals from other disciplines.

• Access and evaluate appropriate sources of information.

• Collect data.

• Demonstrate the capacity for critical thinking

Teaching methods

Lecture and case Method

Expected student activities

• Attendance and participation at lectures

• Working in groups

• Submission of group assignments and individual essay

Assessment methods

Assessment combining:

• 30% Group case reports

• 20% Group project

• 50% Individual Essay

Supervision

Office hours	Yes
Assistants	Yes
Forum	No

Resources

Bibliography

• Afuah A. & Tucci C., Internet Business Models and Strategies, 2nd Edition. New York: McGraw-Hill, 2002.

• Feenberg, A., *Between Reason and Experience - Essays in Technology and Modernity*, The MIT Press, 2010.

• Pearlson, Keri E. and Saunders, Carol S., Strategic Management of Information Systems, 5th Edition. Wiley, 2013.

• Sambamurthy, V., Zmud, R., Guiding the Digital Transformation of Organizations, Legerity Digital Press, 2012.

• Tucci, C., Afuah, A., Viscusi, G. (eds.), Creating and Capturing Value through Crowdsourcing, Oxford University Press, 2017.

• Viscusi, G., Batini, C., Mecella, M., Information Systems for eGovernment: a quality of service perspective, Springer, Heidelberg, 2010.

Ressources en bibliothèque

- Internet Business Models and Strategies / Afuah
- Between Reason and Experience - Essays in Technology and Modernity / Feenberg
- Information Systems for eGovernment / Viscusi
- Guiding the Digital Transformation of Organizations / Sambamurthy
- Creating and Capturing Value through Crowdsourcing / Tucci
- trategic Management of Information Systems / Pearlson