

MGT-439

Information technology & digital strategy

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

Language of teaching	English
Credits	2
Session	Winter
Semester	Fall
Exam	During the semester
Workload	60h
Weeks	14
Hours	2 weekly
Courses	1.5 weekly
Number of positions	

Remark

Special schedule. See the MTE website: <http://cdm.epfl.ch/mte/study-plan>

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

Assessment methods

Continuous assessment combining:

- 20% class participation
- 50% group case report
- 30% group project

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.
- Chorafas D., Outsourcing, Insourcing, and IT for Enterprise Management. New York: Palgrave Macmillan, 2003.
- 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](#)
- [Outsourcing, Insourcing, and IT for Enterprise Management / Chorafas](#)
- [Strategic Management of Information Systems / Pearlson](#)
- [Sambamurthy, V., Zmud, R., Guiding the Digital Transformation of Organizations, Legerity Digital Press, 2012.](#)
- ["Creating and Capturing Value through Crowdsourcing" is being processed at the library](#)
- [Information Systems for eGovernment: a quality of service perspective / Viscusi](#)