STRATEGIC IT MANAGEMENT

(37E00200)

SYLLABUS

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Instructor's contact information	Course information
Esko Penttinen esko.penttinen@aalto.fi Office hours: on agreement via e-mail Website: https://people.aalto.fi/esko.penttinen	MSc level elective course in Information and Service Management 2023, autumn period Lecture halls: Rooms can be found from SISU, and they will be reminded later via MyCourses as well Language of Instruction: English Course Website: https://mycourses.aalto.fi/course/view.php?id=40813

1. OVERVIEW

Welcome to our course on Strategic IT Management. During the course, we will take a deep dive into some fundamental issues that organizations face when designing, developing, implementing, and using information systems and technologies. The course is organized roughly into three sections. In the first section, we will take a look at IT governance issues with the aim to improve our understanding on how IT can be managed and governed efficiently and effectively. We will talk about outsourcing of IT, virtual organizing, technical debt, and digital options. In the second section, we address the recent developments in the area of data driven decision making. Before making decisions based on data, organizations need to ensure that information infrastructures and common data taxonomies are in place to support data analysis. In the third section, we will discuss about the various forms of artificial intelligence. We will take a look at the opportunities and challenges that these new breeds of information systems offers to contemporary organizations.

The unit of analysis on the course is organization so all the lectures deal with organizational decision making on critical issues related to information systems and technologies.

There is no mandatory class participation, but it is recommended to attend all lectures as the assignments are related to class discussion and the exam questions are based on lectures and readings. The slides will be available online here in MyCourses prior to the lecture and an audio recording of each lecture will be uploaded to MyCourses after the lecture.

2. PREREQUISITES

No prerequisites.

3. LEARNING OUTCOMES

After the course, the student should have a good understanding of the critical issues related to managing modern information systems such as software robots, machine learning-infused systems, and cognitive automation systems. The student should be familiar with the concept of technical debt and its various forms. After completing the course, the student will be familiar with many powerful theoretical frameworks to help in analysing the effects of the abovementioned systems for organizations and employees.

4. ASSIGNMENTS, ASSESSMENT, GRADING, FEEDBACK

The course consists of three sections: governance of IT, data-driven decision making, and artificial intelligence. Each section contains an assignment (i.e., teaching case exercise).

The course is 6 ECTS and is graded with a 0-5 scale.

In detail, the grade of the course is weighed as follows,

- Reflection paper on Case 1 20% (individual)
- Case 2 report and negotiation exercise 20%
- Case 3 report 20%
- Exam 40%
- Participation to a student panel discussion (pass/fail)

Guidelines for the assignments can be found in MyCourses.

All of the above activities are mandatory, and to be completed to pass the course.

5. READINGS

See lecture slides etc. and the references therein for additional literature.

6. PRELIMINARY SCHEDULE

The course sessions are held on Mondays, Wednesdays, and Fridays at 10.15-11.45 at the Aalto School of Business (rooms can be found in MyCourses). There is no mandatory class participation, but students are encouraged to come to class. Audio files of the lectures are provided, but that audio recording does not include the classroom discussions on the article of the day (see reading in the table below).

Week	Date	Topic	Readings
1	23.10.2023	L1 Introduction, assignments, course content, IT Business value	Melville et al. 2004, MISQ
	25.10.2023	L2 Governance1 - Technical debt and digital options	Woodard et al. 2013
	27.10.2023	L3 Governance2 - Legacy systems	Rinta-Kahila et al. 2023
2	30.10.2023	L4 Governance3 - Outsourcing	Gambal et al. 2022
	1.11.2023	L5 Governance4 - Virtual organizing	Dube & Robey 2008
	3.11.2023	E1 Governance5 - Case Kluuvin Apteekki	Case1: Kluuvin apteekki
3	6.11.2023	L6 Data1 - Information Infrastructures & Data-driven decision making	Grover et al. 2018
	8.11.2023	No class	
	10.11.2023	E2 Data2 - Structured data & E-invoicing	Case2: Tieto
4	13.11.2023	Self-study week - Tieto Negotiations	
	15.11.2023		
	17.11.2023		
5	20.11.2023	L7 Artificial intelligence1 - Introduction	Kaplan & Haenlein 2019
	22.11.2023	L8 Artificial intelligence2 - Explainability	Asatiani et al. 2021
	24.11.2023	E3 Artificial intelligence3 - Case Nokia	Case3: Nokia
6	27.11.2023	L9 Artificial intelligence4 - Skills	Rinta-Kahila et al. 2023b
	29.11.2023	E4 Tieto case presentations	
	1.12.2023	Course synthesis	

7. COURSE WORKLOAD

Classroom hours + exam	32h
Assignments	28h
Self studying	100h
Total	160 h (6 ECTS)

8. ETHICAL RULES

Aalto University Code of Academic Integrity and Handling Thereof:
https://www.aalto.fi/en/applications-instructions-and-guidelines/aalto-university-code-of-academic-integrity-and-handling-violations-thereof