

MANAGEMENT INFORMATION SYSTEMS (MIS)

(37C00100, 6 ECTS)

SYLLABUS

Version 4 (12.3.2024)

Instructor's contact information	Course information
Johanna Bragge, PhD, Principal Univ. Lecturer johanna.bragge@aalto.fi Aalto BIZ, Ekonominaukio 1 Office Hours via Zoom (to be agreed via email) https://people.aalto.fi/johanna_bragge Teaching Assistant: Emma Eini emma.eini@aalto.fi <i>Address general course inquiries to Bragge</i>	BSc level core course in Information and Service Management (ISM) programme 2024, Period IV Lectures in Hall U8 (NO compulsory attendance required, lectures will be recorded if possible) Language of Instruction: English https://mycourses.aalto.fi/course/view.php?id=40794

1. OVERVIEW

Information and communication technologies and data have changed how businesses operate and succeed in today's global economy. Organizations can now use ICT and data to transform themselves and achieve a tremendous competitive advantage. On the other hand, those organizations that are not mastering these assets might not exist in the near future. This course highlights how new technologies and data are changing the current business environment and what effect it has on today's students. The course addresses the major principles of Management Information Systems (MIS) in order to prepare managers to understand the strategic role of ICT and data in the digital economy. This course aims to give students what they need to succeed in the current digital economy. Contents of the course:

- 1: Information Systems and the Role of General and Functional Managers
- 2: Information Systems Defined
- 3: Organizational Information Systems and Their Impact
- 4: Digital Disruption and the Competitive Environment
- 5: Digital Transformation, Innovation, and Entrepreneurship
- 6: Strategic Information Systems Planning
- 7: Value Creation and Strategic Information Systems
- 8: Digital Value Creation
- 9: Digital Value Capture
- 10: Managing Information Systems
- 11: Creating Information Systems in the Digital Age
- 12: Information Systems Trends
- 13: Cybersecurity, Privacy, and Ethics

2. PREREQUISITES

No prerequisites.

3. LEARNING OUTCOMES

The course addresses the major principles of Management Information Systems (MIS) in order to prepare managers to understand the role of ICTs and data in the digital economy. This course aims to give students the starters what they need to succeed in the current digital economy.

4. ASSESSMENT, GRADING AND EXAM FEEDBACK

1. Lectures at campus (some might be shifted to zoom if need arises), or recorded lectures 24+4 h
2. Assignments integrated to the lectures (60% of the grade, at least 30/60 points must be earned)
3. Exam (40% of the grade, at least 20/40 points must be earned). Feedback from the exam will be given via MyCourses and course news (generally) and via personal appointments to be agreed as needed.

5. SCHEDULE – Guest lectures underlined (earn 8 bonus points from them).

Note that 1 lecture is extra for interested, arranged jointly with our Business Intelligence course.

#	Date	Topic	Assignment DL's
1	27.2. Tue	Introduction to the MIS course & Chapters 1-2 (IS and the role of general and function managers; IS defined) / Bragge	1.3.2024
2	29.2. Thu	Collaborative IS and groupware technologies / Bragge	<i>other weekly</i>
3	<u>5.3 Tue</u>	Organizational change in the digitalization era—how to bring myth to life? / Modern Work Lead Karoliina Kettukari, Meltlake (part of Futurice)	<i>deadlines in MyCourses</i>
4	<u>7.3. Thu</u>	Service design and human-centred design methods in healthcare Assistant Prof. Johanna Viitanen and Post-doc Kaisa Savolainen, Aalto SCI and Aalto ARTS	
5	<u>12.3. Tue</u>	Responsible and strategic use of data & AI Iiris Lahti, Head of services and customer success, Saidot	
6	<u>14.3. Thu</u>	Information systems development, agile development / PhD Antti Salovaara, Senior University Lecturer, Aalto ARTS, Department of Design	
7	19.3. Tue	Data, text and web-mining & bibliometric literature reviews / Bragge	
8	<u>21.3. Thu</u>	Beyond ERP—digital innovation driving sustainability transformation / Glen Koskela, Portfolio Strategy & Alliance, Uvance CX, Fujitsu NOTE: Watch Koskela's previous lecture recording (ERP & business applications) BEFORE attending or watching this new lecture! Log in to Panopto, don't use Safari: https://aalto.cloud.panopto.eu/Panopto/Pages/Viewer.aspx?id=0952eabc-07b1-4fdb-bacf-ab5a00b33cc2	
9	<u>26.3. Tue</u>	Challenges with big data analytics / Doctoral researcher Sampsa Suvivuo, ISM/Information Systems Science, Aalto BIZ	
Ext ra	<u>27.3. Wed</u> at 10-12, BI course	Why Tableau? demo / Janne Lind, Lead Solutions Engineer, Tableau, a Salesforce company, <i>Joint lecture with our Business Intelligence course.</i>	Ekonominaukio 1, Hall V001-2
		EASTER BREAK 28.3. - 3.4.	
10	<u>4.4. Thu</u>	Data visualization and storytelling / Post-doc researcher Philipp Back, ISM/Business Analytics, Aalto BIZ	
11	<u>9.4. Tue</u>	IT Security and Privacy / Mikko Karikytö, Chief Product Security Officer, and Dario Casella, Head of Product Privacy Office, Ericsson Finland.	
12	11.4. Thu	Course wrap-up and hints for the exam / Bragge	
	18.4. Thu	EXAM at 9-12 o'clock (online in MyCourses)	
	5.6. Wed	RETAKE EXAM at 13-16 o'clock (online in MyCourses)	

6. ASSIGNMENTS

The assignments are done independently by the students according to assignment instructions. Discussion with peers is allowed and encouraged, but the submissions are individual. The assignments consist of a variety of tasks: article reviews, easy coding and database querying exercises, prompt engineering basics, practical AI tasks, data exploration & visualization, research profiling study using library's literature databases and analyzing the results with text-mining. Students earn several badges by completing the assignments.

Small changes are possible!

Nr.	Assignment	Deadlines	Max points
1	Business technology trend reports 2024	Fri 1.3.	8
2	Python programming starters	Fri 8.3.	8
3	SQL data management language for querying databases	Fri 15.3.	8
4	Prompt Engineering MOOC (IBM Watsonx)	Fri 22.3.	8
5	Practical AI – What everyone should know of AI (Microsoft Copilot , Bing Image creator)	Wed 27.3.	8
6	Exploring and visualizing data with Tableau Online	Fri 5.4.	10
7	Research profiling with Scopus and Text-mining with Leximancer	Fri 12.4.	10
Extra	Answering to Aalto's course feedback survey	Thu 25.4.	2
	Above assignments and feedback survey in total		62
Bonus	Points from being present at guest lectures at campus, (or in zoom in case the live lecture is shifted to zoom. 1 bonus point / guest lecture at the MIS course	Thu 11.4.	8

7. COURSE BOOK

Piccoli, G. and Pigni, F. (2021): Information Systems for Managers **Without Cases**, Edition **5.0**
ISBN: 978-1-943153-85-5 (e-textbook) or 978-1-943153-86-2 (paperback)

<https://www.prospectpressvt.com/textbooks/piccoli-information-systems-for-managers-5-0>

OR Edition **4.0** from 2019

<https://www.prospectpressvt.com/textbooks/piccoli-information-systems-for-managers-4-0>

Paperback: [Availability](#) in Aalto Learning Centre

8. COURSE WORKLOAD

Classroom hours and/or recorded lectures	24+4h
Class/video lecture preparation	10h
Assignments	92h
Preparing for exam	30h
Total	160h (6 op)

9. ETHICAL RULES

As a general rule, Artificial Intelligent (AI) tools such as ChatGPT can be used for ideation but not for content creation, that is, you should write text-based assignments yourself. However, you can use AI tools, to a limited extent, for checking the grammar or increasing the understandability of your text. In case you use AI tools for this purpose, you should always save your original text versions separately at your disposal, in case the teacher asks for them later on. You must also proofread your text yourself, instead of relying only on AI tools. Otherwise, the Turnitin software will provide a high AI-% score, which will lead to an inspection process. Please also note that you cannot use AI tools as a valid reference source, but you should yourself double-check them and search for source materials, where needed. Here are Aalto's general guidelines of using AI for students: <https://www.aalto.fi/en/services/tips-for-using-artificial-intelligence-for-students> .

Aalto University Code of Academic Integrity and Handling Violations Thereof:

See <https://www.aalto.fi/en/applications-instructions-and-guidelines/aalto-university-code-of-academic-integrity-and-handling-violations-thereof#7-3-violations-against-code-of-academic-integrity>

10. OTHER ISSUES

- Registration to course and to re-exam: Via Sisu
- Course policies: Due to the large amount of students and assignments in the course, the assignment deadlines are strict – however, you may submit your assignment 2 days late but there is a deduction involved (-1 point). Turnitin plagiarism and AI detection software will be used for text-based assignments.