

Information Systems Development,

37C00250 (6cr)

SYLLABUS 2023

Version (11 Jan 2022) – Minor updates are possible

Instructor's contact information	Course information
Riitta Hekkala; riitta.hekkala@aalto.fi	Status of the course: Academic Year 2023
Meeting Hours via Teams/ Zoom/ Office: by appointment	Lecture halls: U6 KONECRANES - U149
Instructor's Webpage: http://people.aalto.fi/riitta_hekkala	Language of Instruction: English
	Course Website: https://mycourses.aalto.fi/course/view.php?id=36997
	Teaching Assistants: –

1. OVERVIEW

This course introduces the information system (IS) development process to students. During the course the students will learn about the main development frameworks (waterfall, agile), defining of system requirements, and modeling of data, architecture, and components' interactions within an information system. The course has some guest speakers who will provide in-depth information about specific aspects of IS design. There will be five learning journals/ diaries during this course, an exam and a personal video presentation (4-7 minutes).

2. PREREQUISITES

None

3. LEARNING OUTCOMES

After the course, the students will have acquired knowledge on general issues of information system development (ISD) from many perspectives (leadership, different processes of ISD (waterfall/ agile), and different human perspectives on ISD (e.g., a leader perspective, a software developer perspective etc.) After the course, the students can describe different methods, techniques, tools of ISD, and the main tasks of an information systems development process. They can evaluate the pros and cons of different IS development process models. They can use the basic system development modeling techniques that are common in multi-disciplinary software projects. These contents will be concretized during different lectures.

4. WORKLOAD, ASSESSMENT AND GRADING/ More detailed information will be provided later

1. Lectures: 18 hours face to face and 6 hours self-studying

2. 5 personal learning journals/diaries
3. An exam
4. A personal video presentation (4-7minutes)

Assessment: Grading scale 1-5:

- a. 30% personal learning journals from the selected lectures (5),
- b. 50% an exam,
- c. 20% a personal video presentation (4-7min)

5. READINGS

Avison, D. and Fitzgerald, G.: Information systems development. Methodologies, techniques & tools. 2006 (4th ed)

Hoffer, J.A., George, J.F. and Valacich, J.S., Modern Systems Analysis and Design, 4. edition, 2005; 5. edition 2008; 6. 2011; Pearson Prentice-Hall.

Note: the chapter numbers in the table (see below) may be different depending on the textbooks' editions.

The teacher will also provide some articles and online material in connection with the lectures. These contents will also be helpful in the group work and the personal video presentation.

6. PRELIMINARY SCHEDULE

Lectures:

- 10.01 - 14.02 Tue 13:15-14:45
- 12.01 - 16.02 Thu 13:15-14:45

Note: This is a draft and subject to minor change. MyCourses always has the most up-to-date version.

Session	Date	Topic	Readings	Assignment Due Date
Lecture 1	Tue 10 Jan 2023	Self-study: Readings an article - preparing for the key themes of the course.	Wyrzykowska, B. (2019) Baghizadeh, Z., Cecez-Kecmanovic, D., & Schlagwein, D. (2020)	Readings due 15 Jan
Lecture 2	Thu 12 Jan 2023	Introduction lecture & Organization of the course		
Lecture 3	Tue 17 Jan 2023	ISD processes (Waterfall, and agile software development)	e.g., Hoffer et al. ch. 1 & Avison et al. ch. 3	A learning journal due 22 Jan
Lecture 4	Thu 19 Jan 2023	Determining system requirements/ Use Cases (+ Object oriented analysis)	e.g., Hoffer et al. ch. 6 and p. 225–9	A learning journal due 22 Jan

Lecture 5	Tue 24 Jan 2023	Future of Information Systems Development (ISD); different leadership philosophies	cf. Wyrzykowska, B. et al. (2019)	A learning journal due 29 Jan
Lecture 6	Thu 26 Jan 2023	Entity Relationship Model	e.g., Hoffer et al. ch. 9	A learning journal due 29 Jan
Lecture 7	Tue 31 Jan 2023	Working as a software developer in ISD projects	e.g., Hoffer et al. ch. 6 and p. 225–9	A learning journal due 5 Feb
Lecture 8	Thu 2 Feb 2023	Human Perspectives for ISD // Virtual teams & leadership	TBA	A learning journal due 5 Feb
Lecture 9	Tue 7 Feb 2023	Enterprise architecture in information systems design	TBA	A learning journal due 12 Feb
Lecture 10	Thu 9 Feb 2023	Relational Model + Normalization	e.g., Hoffer et al. ch. 10	A learning journal due 12 Feb
Lecture 11	Tue 14 Feb 2023	Self-Study: A personal video presentation		Due 26 Feb
Lecture 12	Thu 16 Feb 2023	Self-Study: A personal video presentation		

7. COURSE WORKLOAD

Lectures	18h
5 personal learning journals/diaries	15h
An exam	100h
A personal video presentation (4-7 minutes)	27h
Total	160h (6 op)

8. ETHICAL RULES/ Code of Conducts

Aalto University Code of Academic Integrity and Handling Thereof:

<https://www.aalto.fi/en/aalto-university/code-of-conduct>

9. OTHER ISSUES

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