



Course and Examination Fact Sheet: Spring Semester 2025

8,726: Technologien/Technologies: Leveraging AI for Healthcare - The Role of Ethics, Equity and Emotions

ECTS credits: 6

Overview examination/s

(binding regulations see below)

decentral - Presentation, Analog, Group work group grade (40%)

Examination time: Term time

decentral - Oral examination and technical discussions, Analog, Individual work individual grade (20%)

Examination time: Term time

decentral - Written work, Digital, Individual work individual grade (30%)

Examination time: Term time

decentral - Active participation, Analog, Individual work individual grade (10%)

Examination time: Term time

Attached courses

Timetable -- Language -- Lecturer

[8,726,1.00 Technologien/Technologies: Leveraging AI for Healthcare - The Role of Ethics, Equity and Emotions](#) -- English -- [Jonassen Zoe](#)

Course information

Course prerequisites

None

Learning objectives

By the end of the course, students will:

- Know about AI's potential to improve work practices and patient care;
- Understand ethical, emotional, and equity-related challenges in the design and implementation of AI into clinical workflows;
- Have gained an understanding of real-world applications of AI for healthcare teams;
- Have gained the ability to work in groups to develop ideas for equitable AI solutions in healthcare;
- Enhanced their analytical and writing skills.

Course content

How can AI technologies be leveraged to improve healthcare staff well-being and effectiveness at work?

This course will apply a social lens on AI in healthcare focusing on the ethical, equity-related, and emotional dimension of implementing AI in healthcare teams. Students will learn about theories from psychology, management and human-computer interactions to get an overview of the benefits and challenges in designing and applying AI in healthcare. Throughout the course, the focus will be on critically reflecting on how AI can elevate and hinder addressing patients' and workers' emotional needs. Beyond that, the focus will be on discussing the role of AI in making work practices and patient care more equitable and ethical.

The course will kick off with an engaging session on the current use of AI in healthcare teams, providing all students with a comprehensive introduction to the topic. Subsequently, the lecturer and leading practitioners will share real-world insights on



specific applications of AI in healthcare teams. These case studies will span from using algorithms to predict pediatric sepsis to save children's lives, to harnessing GenAI to tackle administrative tasks to prevent physician burnout, to remote patient monitoring for more inclusive care. Throughout the duration of the course, students will have the opportunity to apply their newfound knowledge through innovative group work and an individual essay assignment, ensuring a dynamic and immersive learning experience.

Course structure and indications of the learning and teaching design

The course consists of 12 sessions:

Session 1: Introduction to the role of AI in healthcare

Session 2: Introduction to theories around human-AI interactions, ethics, emotions, and equity

Session 3: *Insights from the field:* Leveraging AI for pediatric sepsis

Session 4: *Insights from the field:* Stories from AI-based ventures in healthcare (Guest speakers)

Session 5: *Insights from the field:* Leveraging AI for patient messaging and remote patient monitoring (Guest speakers)

Session 6: Mini-Hackathon: Group work on designing an equitable AI solution for healthcare

Session 7: Mini-Hackathon: Group work on designing an equitable AI solution for healthcare

Session 8: Mini-Hackathon: Group work on designing an equitable AI solution for healthcare

Session 9: Group pitches

Session 10: Group pitches

Session 11: Input and preparation of written assignment

Session 12: Summary and Conclusion

Contextual Studies are considered part of **Contact Learning**; thus, taking part properly implies **regular attendance**. It is the students' own responsibility to ensure that there is **no timetable clash** between the courses they have chosen. A detailed course outline and all relevant documents will be made available on **StudyNet**. Only the current timetable as published on **Courses** does apply.

Course literature

Small, W. R., Wiesenfeld, B., Brandfield-Harvey, B., Jonassen, Z., Mandal, S., Stevens, E. R., ... & Mann, D. (2024). Large language model-based responses to patients' in-basket messages. *JAMA Network Open*, 7(7), e2422399-e2422399.

Lawrence, K., Singh, N., Jonassen, Z., Groom, L. L., Arias, V. A., Mandal, S., ... & Dove, G. (2023). Operational Implementation of Remote Patient Monitoring Within a Large Ambulatory Health System: Multimethod Qualitative Case Study. *JMIR Human Factors*, 10(1), e45166.

Lindebaum, D., Vesa, M., & Den Hond, F. (2020). Insights from "the machine stops" to better understand rational assumptions in algorithmic decision making and its implications for organizations. *Academy of Management Review*, 45(1), 247-263.

Sendak, M., Balu, S., & Hernandez, A. F. (2023). Proactive Algorithm Monitoring to Ensure Health Equity. *JAMA Network Open*, 6(12), e2345022-e2345022.

Singh, N., Lawrence, K., Richardson, S., & Mann, D. M. (2023). Centering health equity in large language model deployment. *PLOS Digital Health*, 2(10), e0000367.

Singh, N., Lawrence, K., Sinsky, C., & Mann, D. M. (2023). Digital minimalism-an rx for clinician burnout. *The New England Journal of Medicine*, 388(13), 1158-1159.

Additional course information

Zoe Jonassen is an assistant professor at the School of Management and School of Medicine. Prior to joining HSG, Zoe completed her postdoc at the New York University Stern School of Business. Her research focuses on the role of emotions to create synergistic collaborations between humans and digital technologies.

Examination information

Examination sub part/s

1. Examination sub part (1/4)



Examination modalities

Examination type	Presentation
Responsible for organisation	decentral
Examination form	Oral examination
Examination mode	Analog
Time of examination	Term time
Examination execution	Asynchronous
Examination location	On Campus
Grading type	Group work group grade
Weighting	40%
Duration	--

Examination languages

Question language: English
Answer language: English

Remark

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Examination-aid rule

Free aids provision

Basically, students are free to choose aids. Any restrictions are defined by the faculty members in charge of the examination under supplementary aids.

Supplementary aids

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2. Examination sub part (2/4)

Examination modalities

Examination type	Oral examination and technical discussions
Responsible for organisation	decentral
Examination form	Oral examination
Examination mode	Analog
Time of examination	Term time
Examination execution	Asynchronous
Examination location	On Campus
Grading type	Individual work individual grade
Weighting	20%
Duration	--

Examination languages

Question language: English
Answer language: English

Remark

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Examination-aid rule

Closed Book

The use of aids is prohibited as a matter of principle, with the exception of pocket calculator models of the Texas Instruments TI-30 series and, in case of non-language exams, bilingual dictionaries without any handwritten notes. Any other aids that are admissible must be explicitly listed by faculty members in the paragraph entitled "Supplementary aids" of the course and examination fact sheet; this list is exhaustive.



Procuring any aids, as well as ensuring their working order, is the exclusive responsibility of students.

Supplementary aids

None

3. Examination sub part (3/4)

Examination modalities

Examination type	Written work
Responsible for organisation	decentral
Examination form	Written work
Examination mode	Digital
Time of examination	Term time
Examination execution	Asynchronous
Examination location	Off Campus
Grading type	Individual work individual grade
Weighting	30%
Duration	--

Examination languages

Question language: English
Answer language: English

Remark

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Examination-aid rule

Free aids provision

Basically, students are free to choose aids. Any restrictions are defined by the faculty members in charge of the examination under supplementary aids.

Supplementary aids

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4. Examination sub part (4/4)

Examination modalities

Examination type	Active participation
Responsible for organisation	decentral
Examination form	Oral examination
Examination mode	Analog
Time of examination	Term time
Examination execution	Synchronous
Examination location	On Campus
Grading type	Individual work individual grade
Weighting	10%
Duration	--

Examination languages



Question language: English

Answer language: English

Remark

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Examination-aid rule

Free aids provision

Basically, students are free to choose aids. Any restrictions are defined by the faculty members in charge of the examination under supplementary aids.

Supplementary aids

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Examination content

- Group presentation (40%): around 15-20 minutes group presentation on an equitable AI solution for healthcare developed during mini-hackathon
- Reflection essay (30%): 1-2 page essay around key emotional, ethical, or equity-related challenges in implementing AI technologies in healthcare
- Oral examination around reflection essay (20%): around 5-10 minutes Q&A on written essay
- Individual participation during course (10%): Assessed based on active participation and quality of verbal contribution throughout course

Examination relevant literature

Corresponds to course literature

Please note

Please note that only this fact sheet and the examination schedule published at the time of bidding are binding and takes precedence over other information, such as information on StudyNet (Canvas), on lecturers' websites and information in lectures etc.

Any references and links to third-party content within the fact sheet are only of a supplementary, informative nature and lie outside the area of responsibility of the University of St.Gallen.

Documents and materials are only relevant for central examinations if they are available by the end of the lecture period (CW21) at the latest. In the case of centrally organised mid-term examinations, the documents and materials up to CW 13 (Monday, 25 March 2025) are relevant for testing.

Binding nature of the fact sheets:

- Course information as well as examination date (organised centrally/decentrally) and form of examination: from bidding start in CW 04 (Thursday, 23 January 2025);
- Examination information (supplementary aids, examination contents, examination literature) for decentralised examinations: in CW 12 (Monday, 17 March 2025);
- Examination information (supplementary aids, examination contents, examination literature) for centrally organised mid-term examinations: in CW 14 (Monday, 31 March 2025);
- Examination information (regulations on aids, examination contents, examination literature) for centrally organised examinations: two weeks before ending with de-registration period in CW 15 (Monday, 07 April 2025).

