



FDM3517 Sonic experience design 7.5 credits

Sonic-upplevelsedesign

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

The official course syllabus is valid from the autumn semester 2026 as decided by the Faculty Board: dnr PA-2026-0008. Decision date: 2026-04-21.

Grading scale

P, F

Education cycle

Third cycle

Specific prerequisites

The upper secondary course English B/6 or equivalent.

Intended learning outcomes

After passing the course, the student should be able to:

- describe the fundamental theoretical and conceptual bases of sonic experience design
- describe how this area of research has developed historically
- describe the application space including sustainability, health, media production, product design, mobility, etc.

- describe the relationship between listening, sound making and interactivity involved in the design of sonic experiences
- analyse and describe opportunities and limitations to develop sonic experience design projects
- use sonic experience design to address a variety of use-cases (including in the context of sustainability)
- use application programming interfaces and sound design software for sonic experience design
- analyse the possibilities of sonic experience design to support personalisation
- analyse ethical challenges and risks with sonic experience design: for instance, the negotiation of sound preferences in shared spaces
- analyze applications of sonic experience design from critical, inclusive, and ethical perspectives to determine situations and contexts wherein deployment of sound/noise ought to be limited or altogether avoided, or where it may be the only possible channel of communication
- analyse and discuss possibilities of sonic experience design in relation to sustainability
- assess and discuss questions around equal opportunities, diversity and equal conditions related to sonic experience design

in order to be able to develop and use sonic experience design for media technology and human computer interaction from human, ethical and sustainable perspectives.

The course aims to serve both researchers with little or no prior experience in sound, who would like to include sonic and listening dimensions in their work, and sound researchers who would like to view their work in the wider context of sonic experience design.

Course contents

The bases of sonic experience design (historical, theoretical, conceptual and practical).

The bases of listening in interaction, and sound production in both analogue and digital domains.

Common applications of sonic experience design (including trends).

Application of programming interfaces and sound design software for sonic experience design.

Sonic experience design applications on a continuum from functional to creative.

Education and sonic experience design (challenges, possibilities and risks).

Ethical perspectives on use of sonic experience design (for example listening and ethics of care, sound and agency).

Gender equality, diversity and equally conditions perspectives and problems in sonic experience design (for example the articulation of dominance and power through sound).

Future development of sonic experience design.

Examination

- EXA1 - Examination, 7.5 credits, grading scale: P, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability. The examiner may apply another examination format when re-examining individual students. If the course is discontinued, students may request to be examined during the following two academic years.

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Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.