

Procedural Sound Design for User Interfaces

Procedurell ljuddesign för användargränssnitt
6 credits

Programme course

TNM113

Valid from: 2026 Spring semester

Determined by	Main field of study	
Board of Studies for Computer Science and Media Technology	Media Technology and Engineering	
Date determined	Course level	Progressive specialisation
2025-08-28	Second cycle	A1N
Revised by	Disciplinary domain	
	Technology	
Revision date	Subject group	
	Media Production	
Offered first time	Offered for the last time	
Spring semester		
Department	Replaced by	
Institutionen för teknik och naturvetenskap		

Course offered for

- Master of Science in Media Technology and Engineering

Prerequisites

Basic knowledge from courses in user interface, visualization, and programming, as well as basic sound technology and signal processing.

Intended learning outcomes

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

- be able to give a detailed account of how sound should be used in interaction design and in relation to visualization based on sonification and communication theories.
- apply contemporary theories of sonification and interaction design to analyze and evaluate sounds in user interfaces, visualization and games.
- create and implement procedural sound design to effectively convey a message / impression

Course content

The course aims to provide students with knowledge about sound as a form of communication, the principles of using sound in interaction design and methods for designing and creating procedural sound. Briefly, the course content is: Sound and communication theory, sound design, game sound, sonification, sound technology, and methods for procedural sound.

Teaching and working methods

Lectures, practical exercises, seminars, project work in pairs and oral presentation

Examination

LAB1	Laboratory work	3 credits	U, 3, 4, 5
UPG1	Project assignment	3 credits	U, 3, 4, 5

Grades for examination modules are decided in accordance with the assessment criteria presented at the start of the course.

Grades

Four-grade scale, LiU, U, 3, 4, 5

Other information

About teaching and examination language

The teaching language is presented in the Overview tab for each course. The examination language relates to the teaching language as follows:

- If teaching language is “Swedish”, the course as a whole could be given in Swedish, or partly in English. Examination language is Swedish, but parts of the examination can be in English.
- If teaching language is “English”, the course as a whole is taught in English. Examination language is English.
- If teaching language is “Swedish/English”, the course as a whole will be taught in English if students without prior knowledge of the Swedish language participate. Examination language is Swedish or English depending on teaching language.

Other

The course is conducted in such a way that there are equal opportunities with regard to sex, transgender identity or expression, ethnicity, religion or other belief, disability, sexual orientation and age.

The planning and implementation of a course should correspond to the course syllabus. The course evaluation should therefore be conducted with the course syllabus as a starting point.

The course is campus-based at the location specified for the course, unless otherwise stated under “Teaching and working methods”. Please note, in a campus-based course occasional remote sessions could be included.