



## COURSE SYLLABUS

# Creative Coding, 7.5 credits

*Creative Coding, 7,5 högskolepoäng*

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<b>Course Code:</b> TCCK13	<b>Education Cycle:</b> First-cycle level
<b>Confirmed by:</b> Dean Mar 1, 2023	<b>Disciplinary domain:</b> Technology
<b>Revised by:</b> Jun 5, 2023	<b>Subject group:</b> IF1
<b>Valid From:</b> Aug 1, 2023	<b>Specialised in:</b> G1F
<b>Version:</b> 2	<b>Main field of study:</b> Informatics

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### Intended Learning Outcomes (ILO)

After a successful course, the student shall

Knowledge and understanding

- show familiarity with the concept of information visualization and generative art
- display knowledge of specific kinds of aesthetics
- demonstrate comprehension of autonomous systems

Skills and abilities

- demonstrate skills of using appropriate data structures to collect, store, and manipulate data with the goal of using it for interactive visualization
- demonstrate the ability to apply your own aesthetics manifest to your work

Judgement and approach

- demonstrate the ability to critically reflect on and discuss your own as well as others work of digital art

### Contents

In this course you will learn how to use code as creative medium to develop your ideas and turn your thoughts and feelings into expressive artwork.

You will use your previous knowledge about event-driven and object-oriented programming as a foundation to explore information visualization, generative art, and interactive installations.

Question the meaning of art, design, and aesthetics in correlation to the society, programming, and to yourself. Explore and experiment with your aesthetics in a digital interactive environment.

You will also learn how to question the meaning of art, design, and aesthetics in correlation to society, programming, and yourself as well as to explore and experiment with your aesthetics in a digital interactive environment.

The course includes the following elements:

- Design and build autonomous systems to create generative art
- Explore and find patterns and rules to translate aesthetic principles into computer generated art

- Use appropriate data structures to handle data by parsing or recording, storing, and manipulating it
- Work with data from external sources, like APIs, cameras, or other sensors
- Evolve your own aesthetics manifest while experimenting in the digital art space
- Explore different ways to connect sound and visuals

### Type of instruction

Lectures, seminars, workshops, assignments, and project work.

The teaching is conducted in English.

### Prerequisites

General entry requirements and taken courses Web and User Interface Design, 15 credits, Foundations of Programming 7,5 credits and Some Graphic design/aesthetics course, 7.5 credits or the equivalent.

### Examination and grades

The course is graded 5,4,3 or Fail.

Registration of examination:

Name of the Test	Value	Grading
Assignment	3.5 credits	U/G
Project <sup>1</sup>	4 credits	5/4/3/U

<sup>1</sup> Determines the final grade of the course, which is issued only when all course units have been passed.

### Course literature

The literature list for the course will be provided 8 weeks before the course starts.

The primary course literature will be online resources I give out during the course.

The additional course literature is:

Title: Getting started with p5.js

Author: Casey Reas, Lauren McCarthy, Ben Fry

ISBN: 9781457186752

Title: The Nature of Code: Simulating Natural Systems with Processing

Author: Daniel Shiffman

ISBN: 9780985930806

Free download here: <https://natureofcode.com>

Title: Generative Art

Author: Matt Pearson

ISBN: 9781935182627