UNIVERSITY OF SKÖVDE

TRANSLATION FROM SWEDISH

**COURSE SYLLABUS**

# Information Visualization for Learning and Communication A1N

**3 credits**

**Course code:** IT792A
**Version number:** 2
**Valid from:** 1 July 2022
**Ratified by:** Curriculum Committee for Informatics
**Date of ratification:** 17 March 2022

## 1. General information about the course

The course is provided by the University of Skövde and is named Information Visualization for Learning and Communication A1N (Informationsvisualisering för lärande och kommunikation A1N). It comprises 3 credits and is a second-cycle course. The level of progression is A1N.

The course is a part of the main field of study in Informatics. The disciplinary domain of the course is Technology.

## 2. Entry requirements

A Bachelor's degree equivalent to a Swedish kandidatexamen of 180 (or the equivalent). A further requirement is proof of skills in English equivalent of studies at upper secondary level in Sweden, known as the Swedish course English 6. This is normally demonstrated by means of an internationally recognized language test, e.g. IELTS or TOEFL.

If academic merits are missing, the student can apply for recognition of prior learning.

## 3. Course content

The course focuses on visualization as well as human perception and cognition. Several information visualization techniques are discussed as well as how they can be used to communicate results from data analyses. The assignment contains practical tasks where the student applies aquired theoretical knowledge.

## 4. Objectives

After completed course the student should be able to:

- describe and critically reflect on strengths and weaknesses of different visualization techniques in relation to human perception and cognition.
- describe and discuss different application areas for different visualization techniques, and
- practically apply different visualization techniques as well as present and discuss the results.

## 5. Examination

The course is graded G (Pass) or U (Fail).

The examinations of the course consist of the following modes of assessment:

- **Written assignment**
  3 credits, grades: G/U

Students with a permanent disability who have been approved for directed educational support may be offered adapted modes of assessment.

## 6. Types of instruction and language of instruction

The teaching consists of video lectures, supervisions and discussions in online forums.

The teaching is conducted in English.

## 7. Course literature and other educational materials

Munzner, T. (2014). *Visualization analysis and design: Principles, techniques and practice*. Boca Raton: CRC Press. ISBN 9781466508910.

Ware, C. (2021). *Visual thinking for information design*. Cambridge, US: Morgan Kaufmann. ISBN 9780128235676.

Scientific papers and other material are provided on the course page on the learning platform.

## 8. Student influence

Student influence in the course is ensured by means of course evaluation. The students are informed about the results of the evaluation and potential measures that have been taken or are planned, based on the course evaluation.

## 9. Additional information

This course is aimed at industrial professionals. The course has been developed within the project MAISTR – Data analytics and service innovation based on artificial intelligence, which is a cooperation between Halmstad University, Skövde University, Blekinge University of Technology, RISE and industrial partners. The project is financed by the Knowledge Foundation.

Further information about the course, as well as national and local governing documents for higher education, is available on the website of the University of Skövde.