

COURSE SYLLABUS

Informationsvisualisering för lärande och kommunikation A1N Information Visualization for Learning and Communication A1N 3 credits

Course Code: IT792A

The Course Syllabus is valid from: 1 July 2022

Date of Approval: 17 March 2022

Version Number: 2

Subject: Informatics

Main Field of Study: Informatics

Disciplinary Domain: Technology

Academic Level: Advanced level

1 Name, Scope and Level of the Course

The course is provided by the University of Skövde and is named Information Visualization for Learning and Communication A1N. It comprises 3 credits and is on advanced level. The level of progression of the course is A1N.

2 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.

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 acquired theoretical knowledge.

4 Forms of Teaching

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

The teaching is conducted in English.

5 Examination

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

Registration of examination results:

Name of examination	Credits	Grading
Written assignment	3 credits	G/U

Students with a permanent disability who have been approved for special educational support may be offered adapted or alternative examinations.

6 Admission Requirements

A Bachelor's degree equivalent to a Swedish kandidaexamen 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.

7 Subject, Main Field of Study and Disciplinary Domain

The course forms a part of the academic subject area of Informatics. The course is a part of the main field of study in Informatics at the University of Skövde. The disciplinary domain of the course is Technology.

Every course at the University of Skövde belongs to a *subject*. The division of subjects is used for follow-up and quality assurance. A *main field of study* is an

area in which a degree can be awarded. *Disciplinary domain* is a division which is used by the government for the allocation of resources for studies at basic level and advanced level.

8 Approval of Course and Course Syllabus

The course was established by the Curriculum Committee for Informatics on 17 March 2022. This course syllabus was ratified by the Curriculum Committee for Informatics on 17 March 2022. It is valid from 1 July 2022.

9 Overlapping with Another Course

This course cannot constitute a part of a degree also containing a course the content of which is totally or partly equivalent to the content of this course.

10 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 will be available on the university's website before a course is given.

National and local regulations for higher education are available on the university's website.

Upon completion of the course there will be a follow-up. The main purpose of this follow-up is to contribute to improvements of the course. The students' experiences and views constitute one of the criteria for the follow-up and are gathered by means of course evaluations. The students will be informed of the results of the follow-up and any decisions regarding actions that are to be taken.

11 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.