School of Economics and Management

DABN19, Data Analytics and Business Economics: Data Visualisation, 4 credits

Dataanalys och ekonomi: Visualisering av data, 4 högskolepoäng

Second Cycle / Avancerad nivå

Details of approval

The syllabus was approved by The Board of the Department of Economics on 2020-09-15 and was last revised on 2022-09-13. The revised syllabus applies from 2023-01-16, spring semester 2023.

General Information

This is a single subject master course in data analytics and business economics. The course is mandatory in the master programme Data Analytics and Business Economics. The course is optional within a number of master programmes at Lund University.

Language of instruction: English
(Teaching may be in Swedish if all registered students have a good knowledge of Swedish.)

Main field of studies	*Depth of study relative to the degree requirements*
Data Analytics and Business Economics	A1N, Second cycle, has only first-cycle course/s as entry requirements

Learning outcomes

Knowledge and understanding

Students shall have an understanding of

- the theoretical and practical construction of visualisations,
- how the type of data impacts the visualisation and what components are appropriate.

Competence and skills

Students shall have the ability to independently:

- visualise various types of data using software,
- make appropriate choices in designing visualisations,
- present and discuss visualisations in dialogue with others.

Judgement and approach

Students shall have the ability to assess visualisations with respect to clarity, accessibility and ethics, and demonstrate insight into the importance of the design of visualisations with respect to communicative properties, accessibility and ethics.

Course content

The course provides an introduction to theoretical and practical aspects of data visualisation. The following topics are covered in the course:

- introduction and background,
- introduction to R and ggplot2,
- visualisation of data with few observations,
- choice of colour, symbols, scales, and perspective (2D, 3D),
- summation and abstraction (many observations),
- interactive visualisations,
- maps and spatial data,
- visualisation of statistical models.

Course design

1. Teaching: The course consists of self-study of literature with web-based support, including video recordings, as well as exercises in producing visualisations on your own. Computer sessions with supervision is offered to a limited extent. An important part of the course is to critique visualisations by other course participants and to respond to critique by them.

Assessment

1. Examination: The examination consists of quizzes and home assignments that are peer reviewed. Other forms of examination may be used to a limited extent.

2. Limitations on the number of examination opportunities: –

The University views plagiarism and other academic dishonesty very seriously, and will take disciplinary action against students for any kind of attempted malpractice in connection with examinations and assessments. Plagiarism is considered to be a very serious academic offence. The penalty that may be imposed for this, and other unfair practices in examinations or assessments, includes suspension from the University for a specified period.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Subcourses that are part of this course can be found in an appendix at the end of this document.

Grades

Marking scale: Fail, Pass.
1. Grade, Characteristic
Pass. A result that satisfies the requirements with regard to theoretical depth, practical relevance, analytical ability and independence.
Fail. An inadequate result with regard to theoretical depth, practical relevance, analytical ability and independence.

2. Weighting grades from different parts of the course: –

3. Grading scales for different parts of the course: –

Entry requirements

Students admitted to the master programme Data Analytics and Business Economics are eligible for this course. For other students, STAA31 Statistics: Basic Course 1 or STAA36 Statistics: Fundamentals of Business Analytics, or the equivalent, is required.

Further information

1. Transitional regulations: –

2. Limitations in the period of validity: –

3. Limitations: –

4. Similar courses: –

5. Limitations in renewed examination: –

Subcourses in DABN19, Data Analytics and Business Economics: Data Visualisation

Applies from H21

2101 Quizzes, 1,5 hp
Grading scale: Fail, Pass
2102 Assignments, 2,5 hp
Grading scale: Fail, Pass