



ME1316 Quantitative Business and Operations Analytics 6.0 credits

Kvantitativ affärs- och verksamhetsanalys

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

On 30/03/2021, the Dean of the ITM school has decided to establish this official course syllabus to apply from spring term 2022 (registration number M-2021-0509).

Grading scale

A, B, C, D, E, FX, F

Education cycle

First cycle

Main field of study

Technology

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

To provide course participants with applied knowledge of quantitative data analysis in different types of industrial activities. The aim is that the course participants after completing the course should be prepared to both carry out analyzes, interpret the results of these analyzes and to critically examine analyzes carried out by others.

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

1. Explain why and how quantitative analyzes are used in business operations.
2. Apply quantitative analysis methods to business data, such as operational data, customer data and product data.
3. Interpret the results of statistical analysis in a business context.
4. Explain assumptions and limitations in an analysis. This includes both analysis of data quality and the assumptions and limitations associated with a specific method.

Course contents

This course intends to give the students an understanding of how quantitative analyses can be used in business. In an increasingly digitalised world is predicted that the importance of these skills will increase. The course focuses on the application of statistical methods to carry out business and operations analyses based on large datasets. The course consists of two parts. Firstly, the students' ability to analyse and present data in an industrial context is be developed. Secondly, the students' ability to review critically, both their own analyses and those of others, through discussions of limitations and assumptions, both in methods and in data.

The course is assessed through seminars and group projects where the students carry out various forms of analysis and an individual examination.

Specific prerequisites

ME1314/ME1305 Introduction to Industrial Engineering and Management, or the equivalent and 45 credits in CINEK programme .

Participated in the teaching of SF1901 or the equivalent; final results need not be reported

Examination

- INL1 - Assignment, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- SEM1 - Seminar assignment, 1.0 credits, grading scale: P, F
- TEN1 - Exam, 2.0 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.