



Faculty of Arts and Social Sciences
Business Administration

Syllabus

Research methods in Industrial Engineering and Management

Course Code:	IEAE04
Course Title:	Research methods in Industrial Engineering and Management <i>Forskningsmetod inom industriell ekonomi</i>
Credits:	15
Degree Level:	Master's level
Progressive Specialisation:	Second cycle, has second-cycle course/s as entry requirements (A1F)

Major Field of Study:
IEA (Industrial Management)

Course Approval

The syllabus was approved by the Faculty of Arts and Social Sciences 2023-02-21, and is valid from the Autumn semester 2023 at Karlstad University.

Prerequisites

45 ECTS credits in the Master of Science programme in Innovation and Service Development (SAIND) or 180 ECTS credits in the Master of Science programme in Industrial Engineering and Management (TACIE), with at least 22.5 ECTS credits at the Master level, or equivalent

Learning Outcomes

Upon completion of the course, students should be able to:

1. give an account of different approaches and research methods used in the area of industrial engineering and management, including their specific features,
2. use key concepts related to research methods in the area of industrial engineering and management,

3. describe and reflect upon the relationship between research design, data collection methods, and analysis,
4. assess the suitability of and apply different research methods in relation to a given research question, and
5. reflect critically upon methodological approaches and the consequences of different methodological choices.

Content

The main aim of the course is for students to develop their ability to identify and address practical and scientific problems through empirical studies based on scientific methods and principles used in industrial engineering and management. The course introduces and treats research designs and research methods traditionally used in the area, and students get practice as they plan, conduct, and assess empirical studies. Research approaches, data collection, and data analysis in relation to both qualitative and quantitative data are included. There is an emphasis on the importance of approaching research methods critically.

Reading List

See separate document.

Examination

Assessment is based on written and oral, individual and group assignments discussed in seminars.

If students have a decision from Karlstad University entitling them to Targeted Study Support due to a documented disability, the examiner has the right to give such students an adapted examination or to examine them in a different manner.

Grades

One of the grades 5 (Pass with Distinction), 4 (Pass with Some Distinction), 3 (Pass), or U (Fail) is awarded in the examination of the course.

Quality Assurance

Follow-up relating to learning conditions and goal-fulfilment takes place both during and upon completion of the course in order to ensure continuous improvement. Course evaluation is partly based on student views and experiences obtained in accordance with current regulations and partly on other data and documentation. Students will be informed of the result of the evaluation and of any measures to be taken.

Course Certificate

A course certificate will be provided upon request.

Additional information

The local regulations for studies at the Bachelor and Master levels at Karlstad University stipulate the obligations and rights of students and staff.