

COURSE SYLLABUS

Operations Strategy and Innovation, 7.5 credits

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Course Code:TOSS21Education Cycle:Second-cycle levelConfirmed by:Dean Mar 1, 2021DisciplinaryTechnology

Valid From: Aug 1, 2021 Disciplinary Technology domain:

Version:

Subject group: IE1

Specialised in: A1F

Main field of study: Production Systems

Intended Learning Outcomes (ILO)

After a successful course, the student shall

Knowledge and understanding

- display knowledge of key concepts and principles within the interdisciplinary fields of operations strategy and product and service innovation
- display knowledge of different perspectives of operations strategy and the strategic role of innovation and its stages
- demonstrate comprehension of the strategy formation process and of the technologies and organizational structures used in innovation processes

Skills and abilities

- demonstrate skills of strategic analysis and analysis of product and service innovation sourcing
- demonstrate the ability to use the proper tools in evaluating and improving strategy formation and innovation processes
- demonstrate the ability to formulate issues critically, plan and undertake advanced tasks within predetermined time frames and to collaborate effectively in teams
- demonstrate the ability in speech and writing to clearly report and discuss own findings and conclusions

Judgement and approach

- demonstrate the ability to make assessments of different measures taken for the direction of operations and be able to evaluate such initiatives
- demonstrate the ability to critically analyse the impact operations strategy and innovation has on economic, social and environmental sustainable development

Contents

The course covers the topic of operations strategy and the strategic impact of the operations function. It covers different perspectives of strategic management, operations strategy, strategic alignment and strategic consensus. Further, it addresses the strategy formation and aims to give the student an understanding of the complexities associated with this interdisciplinary process.

Further, the course aims to connect innovation management in products and services to strategy formation. After reviewing the foundations of and the strategic role of innovation, an operations perspective on managing innovation in product/service development processes is brought into focus. Furthermore, the requirements (inputs) and expectations (outputs) of innovation processes are addressed. Specifically, the value chain and resources required to support innovation processes, as well as their performance objectives (e.g., cost, flexibility, and sustainability) are underlined.

Type of instruction

Lectures, case study seminars, literature seminars, project work.

The teaching is conducted in English.

Prerequisites

Passed courses of at least 90 credits within the major subject industrial engineering and management, mechanical engineering, civil engineering, computer engineering (or the equivalent), 15 credits in mathematics, and completed course Introduction to Supply Chain Operations Management, 7,5 credits. Proof of English proficiency is required.

Examination and grades

The course is graded 5,4,3 or Fail.

The final grade will only be issued after satisfactory completion of all assessments.

Registration of examination:

Name of the Test	Value	Grading
Examination ^I	4 credits	5/4/3/U
Course work	2 credits	U/G
Seminars	1.5 credits	U/G

 $^{^{\}rm I}\,$ Determines the final grade of the course, which is issued only when all course units have been passed.

Course literature

The literature list for the course will be provided one month before the course starts.