AALBORG UNIVERSITET

MASTER OF SCIENCE (MSC) IN ENGINEERING (GLOBAL INNOVATION MANAGEMENT) 2017

CIVILINGENIØR
AALBORG

MODULER SOM INDGÅR I STUDIEORDNINGEN

INDHOLDSFORTEGNELSE

Innovation Pilots 2019/2020 3
Operations Development and Strategy 2019/2020 5
Master's Thesis 2019/2020 7

INNOVATION PILOTS

2019/2020

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

The semester consists of an industrial internship in a relevant Danish company. The total work load of the semester must be equivalent to 30 ECTS. The project should be finalised with a project report or in the form of a scientific paper.

LEARNING OBJECTIVES

KNOWLEDGE

- Have gained knowledge and understanding of theoretical reflective work
- Have gained insight into intercultural communication and its implications.

SKILLS

- Be able to describe the problem solved and the criteria applied for its solution
- Be able to evaluate the concepts, theories and methodologies applied in the solution of the problem
- Be able to account for the choices made during the solution of the problem, and to substantiate that these are made on a high professional level
- Be able to assess the limitations of the concepts, theories and methodologies applied in the solution of the problem.

COMPETENCES

- Be able to analyse and solve an actual problem of industrial relevance through application of systematic research and development processes, including advanced analytical, experimental, and/or numerical methods and models.

TYPE OF INSTRUCTION

The student is included in the company's daily work. Concurrent to the work in the company, the student makes a report which is evaluated after ending the internship.

EXTENT AND EXPECTED WORKLOAD

Since it is a 25 ECTS course module the expected workload is 750 hours for the student.

EXAM

EXAMS

Name of exam	Innovation Pilots
Type of exam	Oral exam based on a project
ECTS	25
Assessment	7-point grading scale
Type of grading	Internal examination
Criteria of assessment	The criteria of assessment are stated in the Examination Policies and Procedures

FACTS ABOUT THE MODULE

Danish title	Innovationspilot
Module code	M-GIM-K3-1
Module type	Project
Duration	1 semester
Semester	Autumn
ECTS	25
Language of instruction	English
Location of the lecture	Campus Aalborg
Responsible for the module	Astrid Heidemann Lassen

ORGANISATION

Study Board	Study Board of Production
Department	Department of Materials and Production
Faculty	Faculty of Engineering and Science

OPERATIONS DEVELOPMENT AND STRATEGY

2019/2020

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

LEARNING OBJECTIVES

KNOWLEDGE

- A coherent and profound understanding of how and why operations globalise, including an in-depth knowledge of the associated theories and strategies
- Insight into the strategic analysis and synthesis of global operations footprints including the understanding of; the strategic situation; the process of globalisation; and the theory-based conceptualisation of operations strategy
- Knowledge of strategic configuration of operations, including structures and infrastructures, the extended operations system and strategic capabilities
- Knowledge about strategic innovation in an operations system context.

SKILLS

- Developed skills to evaluate different options and argue for specific choices for strategic design of global operations systems and operations development strategies, including recognising of competitive opportunities, configuring operations capabilities, organisational processes and organisational designs
- Developed relevant skills to apply theories and methods to the improvement and reorganisation of global operations
- Developed skills to identify and implement options for reorganisation and improvements in the context of global operations.

COMPETENCES

- Be able to discuss the complex of problems associated with globalisation of operations to outline the different paths and strategies a company may choose
- Develop abilities to craft and implement relevant operations strategies.

TYPE OF INSTRUCTION

The teaching is organized in accordance with the general form of teaching. Please see the programme cirruculum §17.

EXTENT AND EXPECTED WORKLOAD

Since it is a 5 ECTS course module the expected workload is 150 hours for the student.

EXAM

EXAMS

Name of exam	Operations Development and Strategy
Type of exam	Written or oral exam
ECTS	5
Assessment	7-point grading scale
Type of grading	Internal examination
Criteria of assessment	The criteria of assessment are stated in the Examination Policies and Procedures

FACTS ABOUT THE MODULE

Danish title	Global produktionsudvikling og -strategi
Module code	M-OIM-K1-3
Module type	Course
Duration	1 semester
Semester	Autumn
ECTS	5
Language of instruction	English
Empty-place Scheme	Yes
Location of the lecture	Campus Aalborg
Responsible for the module	Brian Vejrum Wæhrens

ORGANISATION

Study Board	Study Board of Production
Department	Department of Materials and Production
Faculty	Faculty of Engineering and Science

MASTER'S THESIS

2019/2020

PREREQUISITE/RECOMMENDED PREREQUISITE FOR PARTICIPATION IN THE MODULE

Successful conclusion of the first three semesters of the MSc in Global Innovation Management.

CONTENT, PROGRESS AND PEDAGOGY OF THE MODULE

LEARNING OBJECTIVES

KNOWLEDGE

- Have attained thorough understanding of the specialisation's subject areas.

SKILLS

- Be able to apply scientific methodology to solving a wide variety of problems within the field of specialisation
- Be able to perform scientific work in relevant topics of the field of the specialisation
- Be able to apply a wide range of engineering methods in research and development projects in the field of specialisation
- Be able to participate in or lead projects within the fields of the specialisation.

COMPETENCES

- Be able to work independently with a project on a specific problem within their field of interest on the highest possible level within their specialisation
- Be able to take part in both discipline-specific and interdisciplinary cooperation.

TYPE OF INSTRUCTION

Project work.

EXTENT AND EXPECTED WORKLOAD

Since it is a 30 ECTS course module the expected workload is 900 hours for the student.

EXAM

EXAMS

Name of exam	Master's Thesis
Type of exam	Master's thesis/final project
ECTS	30
Assessment	7-point grading scale
Type of grading	External examination
Criteria of assessment	The criteria of assessment are stated in the Examination Policies and Procedures

ADDITIONAL INFORMATION

The master thesis can be conducted as a long master thesis. If choosing to do a long master thesis, it has to include experimental work and has to be approved by the study board. The amount of experimental work must reflect the allotted ECTS.

FACTS ABOUT THE MODULE

Danish title	Kandidatspeciale
Module code	M-GIM-K4-1
Module type	Project
Duration	1 semester
Semester	Spring
ECTS	30
Language of instruction	English
Location of the lecture	Campus Aalborg
Responsible for the module	Astrid Heidemann Lassen

ORGANISATION

Study Board	Study Board of Production
Department	Department of Materials and Production
Faculty	Faculty of Engineering and Science