



AALBORG UNIVERSITET

MASTER OF SCIENCE (MSC) IN ENGINEERING (OPERATIONS AND SUPPLY CHAIN MANAGEMENT) 2015

MASTER OF SCIENCE (MSC) IN ENGINEERING
AALBORG

[Link til denne studieordning](#)

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§ 1: PREFACE

Pursuant to Act 960 of 14 August 2014 on Universities (the University Act) with subsequent changes, the following curriculum for the Master's programme in Operations and Supply Chain Management is stipulated. The program also follows the Framework Provisions and the Examination Policies and Procedures for the Faculties of Engineering, Science and Medicine.

§ 2: BASIS IN MINISTERIAL ORDERS

The Master's programme is organised in accordance with the Ministry of Higher Education and Science's Order no. 1328 of November 15, 2016 on Bachelor's and Master's Programmes at Universities (the Ministerial Order of the Study Programmes) and Ministerial Order no. 1062 of June 30, 2016 on University Examinations (the Examination Order). Further reference is made to Ministerial Order no. 111 of January 30, 2017 (the Admission Order) and Ministerial Order no. 114 of February 3, 2015 (the Grading Scale Order) with subsequent changes.

§ 3: CAMPUS

The programme is offered in Aalborg.

§ 4: FACULTY AFFILIATION

The Master's programme falls under the Faculty of Engineering and Science, Aalborg University.

§ 5: STUDY BOARD AFFILIATION

The Master's programme falls under the Study Board of Materials and Production.

§ 6: AFFILIATION TO CORPS OF EXTERNAL EXAMINERS

The Master's programme is associated with the external examiners corps on Nationwide engineering examiners/Machine.

§ 7: ADMISSION REQUIREMENTS

Admission to the Master's programme in Operations and Supply Chain

Management requires a Bachelor of Science or Bachelor of Engineering degree in Global Business Engineering (GBE) or the like. (Production Management, Operations Management, Logistics Management, Supply Chain Management).

Students with another Bachelor's degree can be admitted after a specific academic assessment if the applicant is deemed to have comparable educational prerequisites. The University can stipulate requirements concerning conducting additional exams prior to the start of study.

Further, applicants shall document English skills corresponding to a B level.

§ 8: THE PROGRAMME TITLE IN DANISH AND ENGLISH

The Master's programme entitles the graduate to the Danish designation Civilingeniør, cand.polyt. i virksomhedssystemer. The English designation is: Master of Science (MSc) in Engineering (Operations and Supply Chain Management).

§ 9: PROGRAMME SPECIFICATIONS IN ECTS CREDITS

The Master's programme is a 2-year, research-based, full-time study programme. The programme is set to 120 ECTS credits.

§ 10: RULES CONCERNING CREDIT TRANSFER (MERIT), INCLUDING THE POSSIBILITY FOR CHOICE OF MODULES THAT ARE PART OF ANOTHER PROGRAMME AT A UNIVERSITY IN DENMARK OR ABROAD

The Study Board can approve successfully completed (passed) programme elements from other Master's programmes in lieu of programme elements in this programme (credit transfer). The Study Board can also approve successfully completed (passed) programme elements from another Danish programme or a programme outside of Denmark at the

same level in lieu of programme elements within this curriculum. Decisions on credit transfer are made by the Study Board based on an academic assessment. See the Joint Programme Regulations for the rules on credit transfer.

§ 11: EXEMPTIONS

In exceptional circumstances, the Study Board study can grant exemption from those parts of the curriculum that are not stipulated by law or ministerial order. Exemption regarding an examination applies to the immediate examination.

§ 12: RULES FOR EXAMINATIONS

The rules for examinations are stated in the Examination Policies and Procedures published by the faculty on their website.

§ 13: RULES CONCERNING WRITTEN WORK, INCLUDING THE MASTER'S THESIS

In the assessment of all written work, regardless of the language it is written in, weight is also given to the student's formulation and spelling ability, in addition to the academic content. Orthographic and grammatical correctness as well as stylistic proficiency are taken as a basis for the evaluation of language performance. Language performance must always be included as an independent dimension of the total evaluation. However, no examination can be assessed as 'Pass' on the basis of good language performance alone; similarly, an examination normally cannot be assessed as 'Fail' on the basis of poor language performance alone.

The Study Board can grant exemption from this in special cases (e.g., dyslexia or a native language other than Danish).

The Master's Thesis must include an English summary (or another foreign language: French, Spanish or German upon approval by the Study Board). If the project is written in English, the summary must be in Danish (The Study Board can grant exemption from this). The summary must be at least 1 page and not more than 2 pages (this is not included in any fixed minimum and maximum number of pages per student). The summary is included in the evaluation of the project as a whole.

§ 14: REQUIREMENTS REGARDING THE READING OF TEXTS IN A FOREIGN LANGUAGE

It is assumed that the student can read academic texts in modern Danish, Norwegian, Swedish and English and use reference works, etc., in other European languages.

§ 15: COMPETENCE PROFILE ON THE DIPLOMA

The following competence profile will appear on the diploma:

A Candidatus graduate has the following competency profile:

A Candidatus graduate has competencies that have been acquired via a course of study that has taken place in a research environment.

A Candidatus graduate is qualified for employment on the labour market based on his or her academic discipline as well as for further research (PhD programmes). A Candidatus graduate has, compared to a Bachelor, developed his or her academic knowledge and independence so as to be able to apply scientific theory and method on an independent basis within both an academic and a professional context.

§ 16: COMPETENCE PROFILE OF THE PROGRAMME

The graduate of the Master's programme:

Knowledge

- Has attained understanding of a broad range of theory, models, methods and techniques within the area of operations and supply chain management and systems
- Has knowledge of one or more subject areas that in selected areas within operations and supply chain management and systems are based on the highest international research in a subject area
- Can understand and, on a scientific basis, reflect over subject areas related to operations and supply chain management and systems and identify scientific problems within that area
- Can demonstrate understanding of research work and be able to become a part of the research environment

- Can demonstrate insight into the implications of research work, including research ethics.

Skills

- Is able to apply scientific methodology to solving a wide variety of problems within the field of specialisation
- Is able to perform scientific work in relevant topics of the field of the specialisation
- Is able to apply a wide range of methods in research and development projects in the field of specialisation
- Is able to participate in or lead projects in development of operations and supply chain management systems, flexible manufacturing, development of quality, risk, and project management systems, supply chain operations, manufacturing and supply chain systems, business intelligence and analytics, and global manufacturing management
- Can communicate research-based knowledge and discuss professional and scientific problems with both peers and non- specialists.

Competencies

- Is able to work independently and in groups with a project on a specific problem within his/her field of interest on the highest possible level within his/her specialisation
- Is able to take part in technical development and research
- Can manage work and development situations that are complex, unpredictable and require new solutions within the area of operations and supply chain management systems
- Can independently initiate and implement discipline-specific and interdisciplinary cooperation and assume professional responsibility
- Is able to direct the management of development projects within the industry
- Is competent to solve new and complicated problems by the use of advanced mathematics, scientific, economics, organisational and technological knowledge
- Can independently take responsibility for own professional development and specialisation.

§ 17: STRUCTURE AND CONTENTS OF THE PROGRAMME

The MSc programme in Operations and Supply Chain Management aims at providing the graduates with competences to solve complex operational problems. Furthermore, the graduates are expected to be able to develop and construct managerial control systems which can be used in preparation and implementation in an industrial production context. The learned methods and principles are also applicable to a number of service trades. The fields of work are addressed from different perspectives; systems, operations, economics, organisation and management. Moreover, relevant technological methods, including the use of information technology, are included in the programme.

The course of study may, dependent on the choice of project, be designed individually within the framework of the programme.

The programme is structured in modules and organised as a problem-based study. A module is a programme element or a group of programme elements which aims to give students a set of professional skills within a fixed time frame specified in ECTS credits, and concluding with one or more examinations within specific exam periods defined in the curriculum.

The programme is based on a combination of academic, problem-oriented and interdisciplinary approaches and organised based on the following work and evaluation methods that combine skills and reflection:

- Lectures
- Classroom instruction
- Project work
- Workshops
- Exercises (individually and in groups)
- Teacher feedback
- Reflection
- Portfolio work.

§ 18: OVERVIEW OF THE PROGRAMME

All modules are assessed through individual grading according to the 7-point scale. All modules are assessed by external examination (external grading) or internal examination (internal grading or by assessment by the supervisor only).

Offered as:					
Module name	Course type	ECTS	Applied grading scale	Evaluation method	Assessment method
1 SEMESTER					
Operations Management	Project	15	7-point grading scale	Internal examination	Oral exam based on a project
Advanced Operations Management	Course	5	7-point grading scale	Internal examination	Written or oral exam
Flexible Manufacturing	Course	5	7-point grading scale	Internal examination	Written or oral exam
Development of Quality, Risk, and Project Management Systems 1	Course	5	7-point grading scale	Internal examination	Written or oral exam
2 SEMESTER					
Supply Chain Operations	Project	15	7-point grading scale	External examination	Oral exam based on a project
Manufacturing and Supply Chain Systems	Course	5	7-point grading scale	Internal examination	Written or oral exam
Business Intelligence and Analytics	Course	5	7-point grading scale	Internal examination	Written or oral exam
Development of Quality, Risk, and Project Management Systems 2	Course	5	7-point grading scale	Internal examination	Written or oral exam
3 SEMESTER					
Global Manufacturing Management	Project	30	7-point grading scale	Internal examination	Oral exam based on a project
4 SEMESTER					
Master's Thesis	Project	30	7-point grading scale	External examination	Master's thesis/final project

1. Students are given several choices of composing an individual planned semester, including extending the master's thesis to up to 60 ECTS. Combination of project and courses (see note 2), internship, semester at other university.
2. The project must be equivalent to at least 15 ECTS. Course modules approved by the Study Board for the specific study must supplement to a total of 30 ECTS.
3. By agreement with the Study Board of Industry and Global Business Development, the project may be reduced to allow for participation in course activities. However, the project must encompass at least 15 ECTS. Proposed course activity is evaluated and tested in accordance with the curriculum in which the course module is described.

Dependent on student's choice of content and organisation of the semester; the student may choose between project work at Aalborg University or a voluntary traineeship at a company in Denmark or abroad. The total work load of the semester has to be equivalent to 30 ECTS. If carried out at Aalborg University, the project may be finalised with a project report or in the form of a scientific paper. If continued at the 4th semester, the project is evaluated with a midterm evaluation. For further information about the organisation of the module please see the Framework Provisions.

§ 19: ADDITIONAL INFORMATION

The current version of the curriculum is published on the Board of Studies' website, including more detailed information about the program, including exams.

All students who have not participated in Aalborg University's PBL introductory course during their Bachelor's degree must attend the introductory course "Problem-based Learning and Project Management". The introductory course must be approved before the student can participate in the project exam.

§ 20: COMMENCEMENT AND TRANSITIONAL RULES

The curriculum is approved by the Dean of the Faculty of Engineering and Science *or* The Faculty of Medicine and enters into force as of September 2015.

Students who wish to complete their studies under the previous curriculum from 2013 must conclude their education by the summer examination period 2016 at the latest, since examinations under the previous curriculum are not offered after this time.

In accordance with the Framework Provisions for the Faculty of Engineering and Science and The Faculty of Medicine at Aalborg University, the curriculum must be revised no later than 5 years after its entry into force.

§ 21: AMENDMENTS TO THE CURRICULUM AND REGULATIONS

Minor editorial changes have been made in connection with digitisation of the study curriculum.