

# CURRICULUM FOR THE MASTER OF SCIENCE (MSC) IN TECHNOLOGY (ENTREPRENEURIAL BUSINESS ENGINEERING), 2022

MASTER OF SCIENCE (MSC) IN TECHNOLOGY AALBORG

Link to this studyline

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# § 1: PREFACE

Pursuant to consolidation Act 778 of August 7, 2019 on Universities (the University Act), the following is established.

The programme also follows the Examination Policies and Procedures incl. the Joint Programme Regulations for Aalborg University.

#### § 2: BASIS IN MINISTERIAL ORDERS

The Master's programme is organised in accordance with the Ministry of Higher Education and Science's Order no. 2285 of December 1, 2021 on Full-time University Programmes (the University Programme Order) and Ministerial Order no. 2271 of December 1, 2021 on University Examinations (the Examination Order). Further reference is made to Ministerial Order no. 104 of January 24, 2021 (the Admission Order) and Ministerial Order no. 114 of February 3, 2015 (the Grading Scale Order).

#### § 3: CAMPUS

The programme is offered in Aalborg.

#### § 4: FACULTY AFFILIATION

The Master's programme falls under the Faculty of Social Sciences and Humanities, Aalborg University.

#### § 5: STUDY BOARD AFFILIATION

The Master's programme falls under the Study Board of Economics and Business Administration.

#### § 6: AFFILIATION TO CORPS OF EXTERNAL EXAMINERS

The Master's programme is associated with the external examiners corps on the Civil engineering corps of external examiners.

#### § 7: ADMISSION REQUIREMENTS

Applicants with a legal right of admission (retskrav):

None.

#### Applicants without legal right of admission:

- Bachelor (BSc) in Economics and Business Administration from Aalborg University.
- Bachelor (BSc) in Economics and Business Administration from Copenhagen Business School (CBS).
- Bachelor (BSc) in Economics and Business Administration from Roskilde Universitet (RUC).
- Bachelor (BSc) in Economics and Business Administration from Syddansk Universitet (SDU).
- Bachelor (BSc) in Economics and Business Administration from Aarhus Universitet (AU).
- Bachelor of Science in Architecture and Design
- Bachelor of Science in Civil Engineering
- Bachelor of Science in Electronics and Computer Engineering
- Bachelor of Science in Internet Technology
- Bachelor of Science in Computer Systems
- Bachelor of Science in Software
- Bachelor of Science in Machine and Manufacturing

- Bachelor of Science in Medialogy
- Bachelor of Science in City-, Energy and Envrironmental Planning
- Bachelor of Science in Health Science and Technology
- Bachelor of Science in Architectural Technology and Construction Management
- Bachelor of Science in Civil Engineering
- Bachelor of Science in Mechanical Engineering
- Bachelor of Science in Engineering in Information and Communication Technology.

All applicants without a legal claim must prove that their English language qualifications is equivalent to level B (Danish level) in English.

Admission to the master's programme in Technology (Entrepreneurial Business Engineering) requires that the applicant has passed a relevant qualifying bachelor's or professional bachelor's degree programme. A bachelor's or professional bachelor's degree programme is defined as relevant if the degree programme provides competencies to a minimum of ECTS within the following subject areas:

Mathematics, Statistics and Quantitative Methods [10 ECTS]

## § 8: THE PROGRAMME TITLE IN DANISH AND ENGLISH

The Master's programme entitles the graduate to the Danish designation Cand.tech. i entreprenørskab og forretningsinnovation. The English designation is: Master of Science (MSc) in Technology (Entrepreneurial Business Engineering).

## § 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 that passed programme elements from other educational programmes at the same level replaces programme elements within this programme (credit transfer).

Furthermore, the Study Board can, upon application, approve that parts of this programme is completed at another university or a further education institution in Denmark or abroad (pre-approval of credit transfer).

The Study Board's decisions regarding credit transfer are based on an academic assessment.

#### § 11: EXEMPTIONS

The Study Board's possibilities to grant exemption, including exemption to further examination attempts and special examination conditions, are stated in the Examination Policies and Procedures published at this website: <a href="https://www.studyservice.aau.dk/rules">https://www.studyservice.aau.dk/rules</a>

#### § 12: RULES FOR EXAMINATIONS

The rules for examinations are stated in the Examination Policies and Procedures published at this website: https://www.studyservice.aau.dk/rules

#### § 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. If the project is written in English, the summary can be in Danish. 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 text and use reference works, etc., in English.

# § 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 purpuse of the Master of Science (MSc) in Entrepreneurial Business Engineering is that the candidate has the following comptence profile after graduation:

#### Knowledge:

- Must possess knowledge of management of technology, entrepreneurship and innovation which is based on the state-of-the-art international research within the subject area.
- Must be able to understand and scientifically reflect on the knowledge of the subject area as well as be able to identify scientific issues.

#### Skills:

- Must master the scientific methodologies and tools of the subject area as well as master general and digital skills related to work within management of technology, entrepreneurship and innovation.
- Must be able to evaluate and select among the scientific theories, methodologies, tools and general skills of the subject area, and scientifically set up new analysis and solution models.
- Must be able to communicate research-based knowledge and discuss professional and scientific issues with both peers and non-specialists.

#### Competencies:

- Must be able to manage work situations and developments that are complex, unpredictable and require new solution models.
- Must be able to independently initiate and carry out discipline-specific and interdisciplinary collaboration and assume professional responsibility.
- Must be able to independently take responsibility for their own professional development and specialisation.

The employer can expect that the candidate will be able to:

- independently organise and conduct analyses of key issues within managementof technology, entrepreneurship and innovation and translate this knowledge into solutions.
- compare complex theoretical and practical issues within management of technology, entrepreneurship and innovation and argue for the pros and cons associated with different solution suggestions.
- lead and in constructive ways support that group processes function in professional ways that add value to the core of the business.

- actively contribute to professional and interdisciplinary team processes in relation to management of technology, entrepreneurship and innovation.
- independently, and in cooperation with others, apply theoretical knowledge on management of technology, entrepreneurship and innovation to concrete solutions.
- assume a professional responsibility to lead people and processes within management of technology, entrepreneurship and innovation from idea phase to implementation.
- provide strategic and operational sparring in relation to management of technology, entrepreneurship and innovation of commercial importance.
- translate abstract management of technology, entrepreneurship and innovation theoretical and professional practical knowledge and insights into understandable communication for different audiences.

At the Master of Science (MSc) in Entrepreneurial Business Engineering there is great emphasis on the student's development and learning. These expectations are expressed in the knowledge, skills and competencies the student acquires throughout the programme and in the respective modules.

The program is anchored in a problem-based approach to learning (PBL), where the student's abilities in identifying, analysing and presenting solutions to actual and concrete business challenges is supported thorugh independent and team-based activities both in courses and project work.

Hence, PBL is an integrated aspect of both projects and course activities, such as lectures, case work, exercises and business cooperation.

The programme values highly interdisciplinary work, teamwork, individual learning, and progression of PBL competencies. A supportive learning environment ensures that the student, individually and in teams, gradually strengthens his or her ability to build and bring together practical and theoretically anchored competences in reflexive ways.

Furthermore, the student manages to argue and transform these competences into concrete solutions.

The programme supports PBL progression by empowering the student's problem-oriented, interpersonal, structural and reflective skills. The student achieves this by testing and gaining experience with various issues, cooperative relationships, project forms and reflection processes.

The aim is to strengthen the student's curiosity, motivation and interest in the business economics core disciplines within the Master of Science (MSc) in Entrepreneurial Business Engineering.

# § 17: STRUCTURE AND CONTENTS OF THE PROGRAMME

The Master of Science (MSc) in Entrepreneurial Business Engineering is a specialized, interdisciplinary problem based programme.

In this programme, the student will develop sound theoretical foundations and skills in critical thinking needed for decision-making in the field of management of technology, and entrepreneurial or innovative processes in both established and new organizations.

The programme is characterized by interdisciplinary aspects of management of technology, entrepreneurship and innovation and prepares the student for taking part in processes of commercialization of new knowledge, value creation through innovative solutions, and development and implementation of processes that enable creative and innovative solutions in organisations.

During the programme, students will develop competences in critical thinking, analysis, synthesis and problem solving. These competences enables the student to organize processes of qualifying, quantifying and pursuing opportunities in both new and existing organizations including both marketing, finance, accounting and project management.

The Master of Science (MSc) in Entrepreneurial Business Engineering is based on research and practice-based teaching and is inspired by current challenges from an international context.

The programme is offered in English.

The program is based on a combination of professional, problem-oriented and multidisciplinary approaches. It is organised on the following forms of work and evaluation, which combine skills and academic reflection:

- lectures
- class teaching
- project work

- workshops
- problem solving (individually and in groups)
- teacher feedback
- peer review
- digitally supported learning
- academic reflection
- portfolio work

# § 18: OVERVIEW OF THE PROGRAMME

Offered as: 1-professional						
Module name	Course type	ECT S	Applied grading scale	Evaluation method	Assessment method	Langu age
		1 SI	EMESTER			
Corporate Entrepreneurship, Management and Technology (M-KATEI20226)	Course	5	7-point grading scale	Internal examination	Written or oral exam	Englis h
Management of Technological Innovation and Applied Business Modelling (KATEI20227)	Course	10	7-point grading scale	Internal examination	Oral exam based on a project	Englis h
Semester Project incl. Executing Entrepreneurial Ideas (KATEI20225)	Project	15	7-point grading scale	Internal examination	Oral exam based on a project	Englis h
		2 SI	EMESTER			
Principles of Finance and Financial Statement Analysis (KATEI20228)	Course	5	7-point grading scale	Internal examination	Written or oral exam	Englis h
Design- and Human-driven Innovation (KATEI20229)	Course	5	Passed/Not Passed	Internal examination	Active participation/continuous evaluation	Englis h
Marketing, Innovation, and Entrepreneurship (KATEI202210)	Course	5	7-point grading scale	Internal examination	Written or oral exam	Englis h
Semester Project incl. Project Management (KATEI202211)	Project	15	7-point grading scale	External examination	Oral exam based on a project	Englis h
			EMESTER th version			
Electives 3rd semester		30				
	2nd versi		EMESTER usiness Data	Science)		
Introduction to Data Handling, Exploration & Applied Machine Learning (KADAT20222)	Course	10	7-point grading scale	Internal examination	Oral exam	Englis h

Natural Language Processing and Network Analysis (KADAT20223)	Course	5	7-point grading scale	Internal examination	Oral exam	Englis h		
Data-Driven Business Modelling and Strategy (KADAT20221)	Project	15	7-point grading scale	Internal examination	Oral exam based on a project	Englis h		
			EMESTER rd version					
Commodity Economics - Basic (KAØKS202230)	Course	10	7-point grading scale	Internal examination	Written or oral exam	Englis h		
Commodity Economics - Advanced (KAØKS202240)	Project	20	7-point grading scale	Internal examination	Oral exam based on a project	Englis h		
			EMESTER th version					
New Venture Creation - Basic (KAØKS202250)	Course	15	7-point grading scale	Internal examination	Written or oral exam	Englis h		
New Venture Creation - Advanced (KAØKS202260)	Project	10	7-point grading scale	Internal examination	Oral exam based on a project	Englis h		
Entrepreneurial Finance (KAFIN202214)	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	Englis h		
4 SEMESTER								
Master's Thesis (KATEI202212)	Project	30	7-point grading scale	External examination	Master's thesis/final project	Englis h		

In addition to the above options, the student will in the third semester have the option to attend a semester at a Danish or foreign university. This must be pre-approved by the Study Board of Economics and Business Administration and evaluated as specified in the host's curriculum.

Electives 3rd semester						
Module name	Course type	ECT S	Applied grading scale	Evaluation Method	Assessment method	Langu age
Projectbased Business Cooperation (KATEI20221)	Project	10	7-point grading scale	Internal examination	Oral exam based on a project	Englis h
Projectbased Business Cooperation (KATEI20222)	Project	15	7-point grading scale	Internal examination	Oral exam based on a project	Englis h
Projectbased Business Cooperation (KATEI20223)	Project	20	7-point grading scale	Internal examination	Oral exam based on a project	Englis h
Business Design and Sustainability (KATEI20224)	Course	5	7-point grading scale	Internal examination	Oral exam based on a project	Englis h
Business Design (KAORS20227)	Course	5	Passed/Not Passed	Internal examination	Active participation/continuous evaluation	Englis h
Sustainability and Non-Market Strategy (KAORS20228)	Course	5	7-point grading scale	Internal examination	Written exam	Englis h
Causal Design for Decision Making in Business (KAORS20229)	Course	5	7-point grading scale	Internal examination	Written exam	Englis h

2022						
Responsible Business: Sustainability. Compliance and Control Issues (KAØKS202212)	Course	5	7-point grading scale	Internal examination	Written exam	Englis h
Risk Management in Financial Institutions (KAFIN202219)	Course	5	Passed/Not Passed	Internal examination	Written exam	Englis h
International Finance (KAFIN202215)	Course	5	Passed/Not Passed	Internal examination	Written exam	Englis h
Empirical Methods for Corporate Finance (KAFIN202210)	Project	5	Passed/Not Passed	Internal examination	Oral exam based on a project	Englis h
Business Valuation Challenge (KAFIN202212)	Project	5	Passed/Not Passed	Internal examination	Oral exam based on a project	Englis h
<u>Financial Trading Challenge</u> (KAFIN202213)	Project	5	Passed/Not Passed	Internal examination	Oral exam based on a project	Englis h
Entrepreneurial Finance (KAFIN202214)	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	Englis h
International Marketing (KAMAR202210)	Course	5	7-point grading scale	Internal examination	Written or oral exam	Englis h
International Sales Negotiations (KAMAR202511)	Course	5	7-point grading scale	Internal examination	Written or oral exam	Englis h
Strategic Brand Management (KAMAR202213)	Course	5	7-point grading scale	Internal examination	Written or oral exam	Englis h
Global Environmental Dynamics and Firms Responses (KAINB202212)	Course	5	7-point grading scale	Internal examination	Written or oral exam	Englis h
Internationalisation in Emerging Product and Geographic Markets (KAINB202213)	Course	5	7-point grading scale	Internal examination	Written exam	Englis h
Internationalisation of Diverse Organisational Forms (KAINB202214)	Course	5	7-point grading scale	Internal examination	Written exam	Englis h
Multinational Corporations and Ecosystems: Innovation for Sustainable Development (KAINB202215)	Course	5	Passed/Not Passed	Internal examination	Written exam	Englis h
Advanced Innovation Management (KAISC20224)	Course	10	7-point grading scale	Internal examination	Written or oral exam	Englis h
Intrapreneurship - intro course across studies (KAMERC20231)	Course	5	Passed/Not Passed	Internal examination	Oral exam	Englis h
Commodity Economics - Basic (KAØKS202230)	Course	10	7-point grading scale	Internal examination	Written or oral exam	Englis h
New Venture Creation - Basic (KAØKS202250)	Course	15	7-point grading scale	Internal examination	Written or oral exam	Englis h
Project management (KASUS202305)	Course	5	Passed/Not Passed	Internal examination	Written or oral exam	Englis h
Project management (KASUS202310)	Course	10	Passed/Not Passed	Internal examination	Written or oral exam	Englis h
Intrapreneurship (foundation) (KAØKS202261)	Course	5	7-point grading scale	Internal examination	Oral exam	Englis h

Intrapreneurship (Advanced) (ØKS20224)	Project	5	7-point grading scale	Internal examination	Oral exam based on a project	Englis h
Retailing (KAMAR20241)	Project	5	7-point grading scale	Internal examination	Oral exam based on a project	Englis h
Consumer Psychology (KAMAR20242)	Project	5	7-point grading scale	Internal examination	Oral exam based on a project	Englis h
Managing Digital Marketing Campaigns (KAMAR20243)	Project	5	7-point grading scale	Internal examination	Oral exam based on a project	Englis h

Prior to each registration period, the Study Board informs the students about which electives from the curriculum that will be offered in the coming semester.

The Study Board reserve the right not to provide elective subjects if the number of students signed up do not meet the minimum requirements. If an elective course is not provided, the students will be offered other options.

### § 19: ADDITIONAL INFORMATION

For further information please visit the programmes website.

Regulations regarding written products are to be found here.

Regulations regarding the master thesis are to be found here.

#### § 20: COMMENCEMENT AND TRANSITIONAL RULES

The curriculum is approved by the Dean and enters into force as of September 2022.

The Study Board does not offer teaching after the previous curriculum from 2020 after the summer examination 2023.

The Study Board will offer examinations after the previous curriculum, if there are students who have used examination attempts in a module without passing. The number of examination attempts follows the rules in the Examination Order.

#### § 21: AMENDMENTS TO THE CURRICULUM AND REGULATIONS

The Vice-dean has on January 19, 2022, approved to change the module "Contemporay Issues" with "Promoting Innovation" valid as of September 2022.

The Vice-dean has on November 29, 2022, approved a revision of the module "Business Design" valid as of autumn 2023.

The Vice-dean has on November 29, 2022, approved that the following electives will no longer be offered valid as of autumn 2023:

- "Promoting Innovation and Entrepreneurship"
- "Innovation and Societal Challenges"

On January 13, 2023, the title has been changes to "Entrepreneurial Business Engineering" / "Entreprenørskab og forretningsinnovation".

The Vice-dean has on November 29, 2022, approved a division of the module "Commodity Economics" into two modules, "Commodity Economics – Basic" and "Commodity Economics – Advanced", valid as of autumn 2023.

The Vice-dean has on November 29, 2022, approved a division of the module "New Venture Creation/Corporate Entrepreneurship" into two modules, "New Venture Creation – Basic" and "Commodity Economics – Advanced", valid as of autumn 2023.

The Vice-dean has on November 29, 2022, approved that the following elective will be offered valid as of autumn 2023:

"Intrapreneurship - intro course across studies"

The Vice-dean has on January 31, 2023, approved a revision of the 2nd version on 3rd Semester valid as of autumn 2023.

The Vice-dean has on February 15, 2023, approved that the following electives will be offered valid as of autumn 2023:

- "Commodity Economics Basic"
- "New Venture Creation Basic

The Vice-dean has on March 27, 2023, approved that the elective "Project Management" (5 ECTS and 10 ECTS) will be offered valid as of autumn 2023.

The Vice-dean has on November 22, 2023, approved that the prøveformen has change from "Written exam" to "Written or oral exam" and a minor correction of the learning objectives in the elective "Princples of Finance and Financial Statement Analysis", valid as of spring 2024.

The Vice-dean has on November 30, 2023 and on January 10, 2024, approved that the electives "Intrapreneurship (Foundation)" and "Intrapreneurship (Advanced)" will be offered valid as of summer 2024.

The Vice-dean has on January 8, 2025, approved a revision of the module "*Principles of Finance and Financial Statement Analysis*" valid as of spring 2025.

The Vice-dean has on November 14, 2024, approved that the following electives will be offered valid as of autumn 2025:

- Retailing
- Consumer Psychology
- Managing Digital Marketing Campaigns

The Vice-dean has on December 17, 2024, approved a revision of the module "International Sales and Negotiations" valid as of autumn 2025.