Curriculum for the Master’s Programme in Sustainable Design (Cand.polyt.)

Aalborg University
September 2017
Preface

Pursuant to Act 261 of March 18, 2015 on Universities (the University Act) with subsequent changes, the following curriculum for the Master's programme in Sustainable Design is stipulated. The programme also follows the Joint Programme Regulations and the Examination Policies and Procedures for The Technical Faculty of IT and Design, The Faculty of Engineering and Science, and The Faculty of Medicine.
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Chapter 1: Legal Basis of the Curriculum, etc.

1.1 Basis in ministerial orders
The Master’s programme in Sustainable Design is organised in accordance with the Ministry of Higher Education and Science’s Order no. 1061 of June 30, 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. 258 of March 18, 2015 (the Admission Order) and Ministerial Order no. 114 of February 3, 2015 (the Grading Scale Order) with subsequent changes.

1.2 Faculty affiliation
The Master’s program falls under The Technical Faculty of IT and Design, Aalborg University.

1.3 Board of Studies affiliation
The Master’s program falls under the Study Board of Techno-Anthropology, Sustainable Design and Integrated Food Studies, that falls under the School of Architecture, Design and Planning.

1.4 External Examiners Corps
The Master’s programme is associated with: Ing/design.

Chapter 2: Admission, Degree Designation, Program Duration and Competence Profile

2.1 Admission
Applicants with a legal claim to admission (retnskrav):
Bachelor of Science in Sustainable Design (AAU)

Applicants with one of the following degrees are entitled to admission:
- Design and Innovation (DTU)
- Integrated Design (SDU)
- Architecture and Design, specialisation in Industrial Design (AAU)

Applicants without legal claim to admission:
Students with another Bachelor’s degree may, upon application to the Board of Studies, 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.

2.2 Degree designation in Danish and English
The Master’s program entitles the graduate to the designation Civilingeniør, cand.polyt. (candidatus/candidate polytechnics) i Bæredygtigt Design. The English designation is: Master of Science (MSc) in Engineering (Sustainable Design).

2.3 The program’s specification in ECTS credits
The Master’s program is a 2-year, research-based, full-time study programme. The program is set to 120 ECTS credits. The teaching language is English.

2.4 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 on the basis of 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.

2.5 Competence profile of the program
The graduate of the Master's programme will acquire the following competences:

Knowledge
- Has knowledge, which in chosen areas, is based on the highest international level of research, within the following areas:
  - Sustainable design
  - Innovation and organizational change processes
  - Staging participatory design
  - Entrepreneurship and market creation
  - Can understand and critically respond to these knowledge fields and their methodologies, as well as identify scientific problem areas within and across them

Skills
- Master engineering and science related methods, methods from innovation studies and methods from network-based analysis of organizations, institutional and interest related context and can with these analyze sustainable technological innovation
- Can critically consider above-mentioned theories and methods, develop new models for sustainable technological innovation and in collaboration with networks of different actors transform these into strategic plans of action
- Can discuss and communicate professional and scientific issues regarding sustainable innovation with technical experts, decision-makers, senior executives, government officers, NGO’s and various users

Competences
- Can manage work- and development situations that are complex, unpredictable and require new solutions
- Can independently initiate and complete professional and cross-disciplinary collaboration and take a professional responsibility within design- and transition processes
- Can independently take responsibility for own professional and cross-disciplinary development within the scientific fields of design, technology and sustainability
Chapter 3: Content and Organisation of the Program

The program is structured in modules and organised as a problem-based study. A module is a program element or a group of program 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. Examinations are defined in the curriculum.

3.1 Teaching methods and exams
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
- instructions
- project work
- work in laboratories and workshops
- experimentation
- workshops
- exercises (individually and in groups)
- teacher feedback
- reflections
- portfolio work
- external activities
- case work
- peer assessment
- study groups

All modules are assessed through individual grading according to the 7-point scale or Pass/Fail. All modules are assessed by external examination (external grading) or internal examination (internal grading).

3.2 Curriculum content
The Master's program is an engineering education with special emphasis on design and development and innovation of sustainable solutions. The program includes interdisciplinary components to satisfy the need for combining methods from social science and technology studies with technical subjects and design practices.

The education will provide the student with the ability to understand, stage and carry out innovative processes leading to design and the implementation of sustainable products, services and socio-material system solutions through involving relevant actors.

The programs’ focus on sustainability is reflecting the challenges that development, production, consumption and dismantling of technologies poses for resource utilization and climate. It builds on the broad notion of sustainability that includes the environment, the social and the economy. The realization of these societal goals implies a focus on sustainable transitions in a design perspective as the core to the program’s activities.
### 3.3 Overview of program and semesters

The table below shows all project and course modules on the master program, the amount of ECTS’s and the assessment for each.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Module</th>
<th>ECTS</th>
<th>Assessment</th>
<th>Exam</th>
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</thead>
<tbody>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>P Conceptualisation of Sustainable Value Chains</td>
<td>15</td>
<td>7-point scale</td>
<td>Internal</td>
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<tr>
<td></td>
<td>C Design in Organisations</td>
<td>5</td>
<td>7-point scale</td>
<td>Internal</td>
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<td></td>
<td>C Market Creation</td>
<td>5</td>
<td>7-point scale</td>
<td>Internal</td>
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<tr>
<td></td>
<td>C Electives (choose 1) Distributed Technological Design</td>
<td>5</td>
<td>Pass/Fail</td>
<td>Internal</td>
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<td></td>
<td>C Electives (choose 1) Design for Sustainability</td>
<td>5</td>
<td>7-point scale</td>
<td>Internal</td>
</tr>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>P Design Strategies as Responses to Wicked Problems</td>
<td>20</td>
<td>7-point scale</td>
<td>External</td>
</tr>
<tr>
<td></td>
<td>C Sustainable Transition</td>
<td>5</td>
<td>7-point scale</td>
<td>Internal</td>
</tr>
<tr>
<td></td>
<td>C Staging participatory design</td>
<td>5</td>
<td>7-point scale</td>
<td>Internal</td>
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<tr>
<td>3&lt;sup&gt;rd&lt;/sup&gt;</td>
<td>Option 1 P Design Research Project</td>
<td>30</td>
<td>7-point scale</td>
<td>Internal</td>
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<td></td>
<td>Option 2 P Internship</td>
<td>30</td>
<td>7-point scale</td>
<td>Internal</td>
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<td></td>
<td>Option 3 P International Design Project</td>
<td>30</td>
<td>7-point scale</td>
<td>Internal</td>
</tr>
<tr>
<td></td>
<td>Option 4 M Semester at another University</td>
<td>30</td>
<td>Credit transfer</td>
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<td>4&lt;sup&gt;th&lt;/sup&gt;</td>
<td>P Master’s Thesis</td>
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<td>7-point scale</td>
<td>External</td>
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<td>In total</td>
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<td>120</td>
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The master program is based on a progression in which the complexity of the themes is progressively increasing:

**1<sup>st</sup> semester: Conceptualisation of Sustainable Value Chains**

On this semester the focus is on conceptualising sustainable value chains related to organisation, economics and market. The organisational context that design and innovation processes are happening in is introduced through the course module *Design in organisations* and the economic dimension of design is introduced through the course module *Market creation*. The students are to choose between two elective modules: *Distributed technological design* and *Design for sustainability*. In the project module *Conceptualisation of sustainable value chains*, the students use knowledge gained from the two course modules and the selected elective module and explore how sustainable value chains can be realised in organisations and on the market, with point of departure in a realistic problem definition.
2\textsuperscript{nd} semester: Design Strategies as Responses to Wicked Problems
On this semester the focus is on design strategies as responses to wicked problems and how it is possible to tackle these wicked problems through a design approach. In the course module \textit{Staging participatory design}, the students will learn strategies for how to stage design processes, and the course module \textit{Sustainable transition focuses on how to stage larger transition processes}.

3\textsuperscript{rd} semester: Holistic Design
On this semester the students are given the opportunity to take a semester at another university, carry out a design project in an international context, carry out a design research project or do an internship in a company or organization.

4\textsuperscript{th} semester: Master Thesis
At the last semester the students are to carry out their master thesis. It is free for the students to choose topic and collaboration partner themselves, as long as it is related to sustainable design challenges.

The figure below shows a schematic view of the master program. The green modules are project modules, which are supported by the grey course modules.

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<thead>
<tr>
<th>Point</th>
<th>5</th>
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<th>15</th>
<th>20</th>
<th>25</th>
<th>30</th>
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<td><img src="#" alt="Design in Organisations" /></td>
<td><img src="#" alt="Market creation" /></td>
<td><img src="#" alt="Distributed Technological Design" /></td>
<td><img src="#" alt="Design for Sustainability" /></td>
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<td>2</td>
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<td><img src="#" alt="Staging Participatory Design" /></td>
<td><img src="#" alt="Sustainable Transition" /></td>
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<td>4</td>
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</table>
3.4 Elective modules
During the master program the students have one elective course module at the first semester. Further, at the 3rd semester, the students have the possibility to choose between 4 options: 1) carry out a Design research project, 2) do a Internship, 3) carry out an International design project or 4) study a whole semester at another university.
3.5 Descriptions of modules

1st Semester

Title: Conceptualisation of Sustainable Value Chains (15 ETCS project module) Konceptualisering af bæredygtige værdikæder

Objective: A student who has completed this module:

Knowledge
• has knowledge of the complexities and interrelations between product/service/system development and business development along value chains when bringing solutions to market
• has knowledge and understanding of design methods and their use
• has knowledge of the theories and methods of project management and the staging of design processes

Skills
• can carry out a theoretically informed empirical analysis of sustainable challenges related to current design and innovation of products and services
• can conceptualise ideas and design solutions across value chains
• can co-create a design solution and a reconfigured sociotechnical network of relations
• has the ability to identify and analyse the relevant technical knowledge necessary to understand the design problem and possible solutions
• is able to create an implementation plan for a design solution in relation to the organisational, business and market related aspects
• can professionally pitch a business idea based on a design solution

Competencies
• can give a reflected criticism of others design work and results and suggest relevant design approaches
• can clearly present and communicate the content and outcome of the project academically and demonstrate the business perspectives and practical implications to collaborative partners in the field
• has ability to conceptualise design solutions and value chains across knowledge boundaries and technological domains based on theoretically informed empirical analysis.

Type of instructions: Project is carried out in groups of 4 to 5 students and planned in cooperation with an external partner. The project offers instructions in engineering design methods, ethnographical methods and qualitative interviews.

Exam format: Evaluation of an oral internal examination as well as exercises/reports. The assessment is performed in accordance with the 7-point scale.

Evaluation criteria: The criteria for evaluation are stated in the Joint Programme Regulations
Title:                 Design in Organisations (5 ETCS course module)  
Design i organisationer

Objective:            A student who has completed this course:

Knowledge
- has knowledge about current international research on theories and methods for organising design and innovation processes in organisations  
- has knowledge about current international research on theories and methods for product and service development
  
can recognise and use tools, methods and situations related to product and service development, and critically reflect on their value

Skills
- can understand and analyse ways of organising knowledge work in product and service development
- can understand interaction between design projects and other company functions, e.g. manufacture, technological developments, human resources, etc.
  
is able to understand the role of social systems and political concerns, and analyse drivers and constraints imposed on design and innovation processes in organisations
- is able to understand the role of knowledge sharing, knowledge management and learning in product development
- can identify and use boundary objects in the staging of multidisciplinary dialogues  
- can explain the significance in and for the involvement of different types of players in design processes
  
can define research topics and questions, and analyse case studies with literature

Competences
- can independently manage design and development projects in organisations, and navigate the organisations’ social systems and political concerns  
- is able to critically reflect on their role as facilitator of design and innovation processes, and evaluate their performance

Type of instructions: Lectures, exercises and project work

Exam format:          Either written, oral or both. This will be determined in the semester description. The assessment is performed in accordance with the 7-point scale.

Evaluation criteria:  The criteria for evaluation are stated in the Joint Programme Regulations
Title: Market Creation (5 ETCS course module)  
Markedsskabelse

Objective: A student who has completed this course:

Knowledge
- can combine knowledge about sustainable innovation and design of ‘things and objects’ with knowledge about the market where things may be sold and consumed
- has knowledge of how markets can be constructed to incorporate ‘more sustainable things and practices’ and be part of solving the environmental challenges
- can explain fundamental concepts of neo-classical economics, the role of externalities and the associated view of markets as natural and pre-existing
- can explain fundamental concepts of from economic sociology on markets as constructions comprising market specific instituted arrangements that constitute legitimate goods, economic actors, and those involved in making or challenging market arrangements

Skills
- can assess the competitive situation of a product, a service or a system
- can describe the life of a product, service or system on the market and map out the processes it becomes part of
- can discuss how product, service and system design plays into the enactment of markets
- can assess how goods are valuated with prices and list of other qualities
- can discuss how consumers become able to calculate, compare and make judgments about goods
- can discuss and work out strategies for how different actors can shape rules, standards and regulations that become part of framing market arrangements for products

Competences
- can independently take part in discussions and reflections on how markets arrangements can facilitate more sustainable goods and market practices

Type of instructions: Reading and analysing texts, lectures, case-work, field study as well as group discussions

Exam format: Either written, oral or both. This will be determined in the semester description. The assessment is performed in accordance with the 7-point scale.

Evaluation criteria: The criteria for evaluation are stated in the Joint Programme Regulations
Title: Design for Sustainability (5 ETCS course module)
Elective Course
Design for bæredygtighed

Objective: A student who has completed this course:

Knowledge:
- has an understanding of the environmental, economic, and social implications of design and innovation
- has insights into various and diverse methodological approaches to sustainability assessment, eco-design and related design strategies
- has an understanding of various ontological and epistemological approaches in sustainability research.

Skills
- has ability to identify and discuss sustainability challenges as embedded in consumption and production networks of modern societies
- can analyse and apply various methods in designing for sustainability.
- can recognize key trade-offs and priorities in design processes
- has ability to demonstrate theoretically informed analyses of the challenges associated with designing for sustainability and with mobilizing networks of actors

Competences
- can analyse and address the challenges of designing sustainable products, technologies, or services
- can collaborate in developing viable design options and
- communicate about the sustainability of design

Type of instructions: Reading and analysing texts, lectures and cases.

Exam format: Either written, oral or both. This will be determined in the semester description. The assessment is performed in accordance with the 7-point scale.

Evaluation criteria: The criteria for evaluation are stated in the Joint Programme Regulations
Title: Distributed Technological Design (5 ETCS course module) - Elective Course

Distribueret teknologisk design

Objective: A student who has completed this course:

Knowledge
- has obtained insight in selected exemplary technological domains and how they may contribute to realise sustainable design solutions
- has insight in existing design solutions and challenges within the exemplary domain
- has gained insight in the technical options and models used within the technical sciences in making solutions operational

Skills
- is able to identify resources in distributed networks of technical, economic and competence capabilities and concepts
- can analyse existing or new value chains and identify the organisational coordination and collaboration needed to realise changes within these
- can understand, analyse and make useful contemporary concepts like platforms, architectures, digitalisation as well as radical and distributed innovation and design

Competencies
- is able to synthesise knowledge from a diversity of technological domains and discuss the possibilities for developing sustainable designs of distributed products and systems
- is able to consider conceptualisation strategies for design solutions across objects worlds and point at the challenges for creating temporary stabilised distributed networks
- is able to formulate requirements for a technology in order to obtain sustainable design solutions to a given problem

Type of instructions: Lectures, exercises, case analysis and dialogue with exemplary technological domains. The course is carried out in collaboration with diverse technological domains.

Exam format: Either written, oral or both. This will be determined in the semester description. The assessment is performed in accordance with the pass/fail norm.

Evaluation criteria: The criteria for evaluation are stated in the Joint Programme Regulations
2nd Semester

Title: Design Strategies as Responses to Wicked Problems (20 ETCS project module)
Design strategier som respons på komplekse problemer

Objective: A student who has completed this module:

Knowledge
- has knowledge about different design strategies to tackle wicked problems
  can understand challenges concerned with ill-defined and working with complex problems
  both on a general level and at local levels

Skills
- can identify, characterise, and analyse a subject matter as the focus for the design process
- can apply different design strategies as a response to a wicked problem
- can develop or redesign sustainable business models seeking to support the subject matter
- can enrol interested parties in companies, governmental bodies and/or from civil society in
  a design process
- can use material objects to visualise and communicate project findings or to facilitate
  dialogue

Competences
- can reflect upon viable design strategies as a response to wicked and ill-defined problems
  and consider the possibilities in a design oriented approach
- can reflect upon viable ways of engaging and enrolling actors from a diversity of
  knowledge, institutional and business domains by taking into account the repertoire of
  design strategies

Type of instructions: Project assignment, carried out in groups of 4-5 students. The project
should be planned in cooperation with a company, an institution or an
interest group. Instructions on sustainable business models and project
management will support the project work.

Exam format: External evaluation of oral exam as well as a report. The assessment is
performed in accordance with the 7-point scale.

Evaluation criteria: The criteria for evaluation are stated in the Joint Programme
Regulations
Title: Sustainable Transition (5 ETCS course module)  
Bæredygtig omstilling

Objective: A student who has completed this course:

Knowledge
- has knowledge about and understands the fundamental ideas of transition theories based on the latest international research within the area
- understands the sustainability challenges faced by modern societies and how they are linked to processes which are embedded in existing social structures
- is able to recognise, analyse and characterise different perspectives within transition research e.g. systems innovation perspective, strategic niche management perspective, socio-technical regimes, multi-level perspective, sustainable governance strategies, practice oriented transition, arenas as situated mappings, transition management

Skills
- can discuss the sustainability challenges of modern societies
- can discuss strategies for sustainable transition and argue for personal opinions on the topic
- can develop design strategies to cope with different sustainability challenges using inspiration from transition theories

Competences
- is able to navigate in complex sustainable transition processes creating structuring and deploying design strategies

Type of instructions: A combination of lectures, exercises and a main cumulative task (a blog).

Exam format: Either written, oral or both. This will be determined in the semester description. The assessment is performed in accordance with the 7-point scale.

Evaluation criteria: The criteria for evaluation are stated in the Joint Programme Regulations
Title: Staging Participatory Design (5 ETCS course module)
Iscenesættelse af participatorisk design

Objective: A student who has completed this course:

Knowledge
- has knowledge of the latest international research discussing staging processes and participatory design
- has insight of participatory design and co-design methods and can reflect on the possibilities of using these in design processes involving vulnerable actors
- has knowledge to critically reflect on the advantages and disadvantages of engaging different actors in design processes

Skills
- can design and use boundary objects when staging co-design processes with actors, including vulnerable actors
- can apply different methods to stage co-design processes
- can reflect on the difference between staging a dialogue ‘in situ’, or via a design lab

Competences
- is able to independently to take professional responsibility of planning and staging co-design processes
- is able to critically reflect on own roles as facilitator of co-design processes

Type of instructions: Reading and analysing texts, lectures and cases, facilitating exercises etc,

Exam format: Either written, oral or both. This will be determined in the semester description. The assessment is performed in accordance with the 7-point scale.

Evaluation criteria: The criteria for evaluation are stated in the Joint Programme Regulations
3rd Semester

Option 1

Title: Design Research Project (30 ETCS project module)

Objective: A student who has completed this module:

Knowledge
- has knowledge on how to set project goals and manage a design research project
- has knowledge of how to interact and relate with other actors within the design research project
- has knowledge on the recent research literature related to the specific research project

Skills
- can formulate a research aim
- can collect empirical material, analyse this and synthesise ideas and concepts in relation to a specific design research project
- can articulate goals, define tasks and coordinate tasks in project work
- can plan and stage the work based on the scope, the complexity and the required results
- can understand the practical, complex execution of design research processes
- can deliver and communicate a thorough design solution
- can evaluate the vulnerability of a design solution

Competences
- can independently take part in collaboration with other researchers and actors and define own role in the work
- can give a reflected criticism of others design work and results

Type of instructions: Project work with supervision.

Exam format: Internal evaluation of written report and experiments, and oral examination. The assessment is performed in accordance with the 7-point scale.

Evaluation criteria: The criteria for evaluation are stated in the Joint Programme Regulations
Option 2

Title: Internship (30 ETCS project module)
Praktik

Objective: A student who has completed this module:

Knowledge
- can identify important ideas and approaches in a number of current management, innovation and design concepts and reflect on these
- has knowledge on how to contribute in an organisation to set project goals, and work as part of a design team
- is able to identify and characterise concepts as an integrated part of organisational management, processes and change
- can understand perspectives on management concepts from political process theory, actor-network theory, symbolism and pragmatism

Skills
- is able to characterise the role of management and design concepts in the staging of change and design processes
- can analyse implicit problem diagnosis and related modes of operation in different management and design concepts and assess their effects
- can articulate problems and goals, and define and coordinate tasks for a design project work, and understand the principles for project definitions
- can identify and provide insights to the use of particular management and design concepts in the host organisation, and evaluate the vulnerability of these concepts
- is able to assess effects of various management, design and innovation concepts on knowledge flows and their ability to create change
- is able to analyse the use of management and design concepts in practice and suggest improvements in their staging and implementation

Competences
- can professionally engage in the planning and staging of concept driven processes, and independently take part in collaborating with other stakeholders in design, and define own role in this work
- can give a reflected criticism of own experiences with the use of management and design concepts, and on others design work and results, and the applicability of own competences in certain contexts

Type of instructions: Class instructions and supervision throughout the whole traineeship period.

Exam format: Internal evaluation of 1 written report and 1 written article followed by an oral examination, all on an individual basis. The assessment is performed in accordance with the 7-point scale.

Evaluation criteria: The criteria for evaluation are stated in the Joint Programme Regulations
Option 3

**Title:** International Design Project (30 ETCS project module)
Internationalt design projekt

**Prerequisites:**
The module adds to the knowledge obtained in ‘Staging participatory design’.

**Objective:**
A student who has completed this module:

**Knowledge**
- has knowledge on how to set project goals, manage and stage an international design project in a multicultural environment
- has knowledge about personal responsibilities and risks for engaging in engineering work in multicultural environments

**Skills**
- can formulate a purpose for an international design project
- can identify the technical knowledge needed for a project, master it, and apply it to the project
- can navigate in complexities of different structures of power to develop a project
- can navigate the complex arrangement of NGOs, government institutions, and companies in the intervening country to arrange the necessary resources for the development of a design project
- can stage a participatory design project based on involving a variety of actors
- can synthesise ideas and concepts based on interactions with actors
  can balance off viewpoints and create a harmonic unity in a multi-cultural team
  can understand the practical, complex execution of international design processes and own role within these processes
- can deliver and communicate a thorough design solution
- can evaluate the vulnerability of concepts

**Competences**
- can independently engage and take responsibility in engineering work in multicultural environments
  can independently establish and conduct a working relationship with people from different cultures
- can reflect critically on the role of engineers in the context of globalization and with relation to sustainability

**Type of instructions:**
Seminars and project work with supervision

**Exam format:**
Internal evaluation of written report, and oral examination. The assessment is performed in accordance with the 7-point scale.

**Evaluation criteria:**
The criteria for evaluation are stated in the Joint Programme Regulations
4th Semester

Title: Master's Thesis (30 ETCS course module)
Kandidatspeciale

Objective: A student who has completed this course:

Knowledge
- has knowledge about and understanding of the latest international research in the fields of sustainability, design and innovation
- has knowledge about how to critically assess knowledge and identify problems with regards to sustainability, design and innovation, within the chosen subject

Skills
- can frame a design assignment or a sustainability challenge using professional tools and methods
- can motivate choices of methods or/and theoretical approach behind the design project
- can select appropriate research-based knowledge for use in the design process and has awareness regarding their value and limitations
- can argue for a solution with regards to it business potential
- can analyse market conditions (users, technologies, competitors etc.) and describe how own solution will perform in this market
- can stage design and innovation processes
- can communicate design and design proposals in a professional manner

Competences
- is able to present the results of the project work in a project report and during an oral examination and argue for the approach taken and the results
- is able independently to manage a project from start to finish and reflect on the processes, theories, methods and tools used

Type of instructions: Project work with supervision, seminars, etc.

Exam format: External oral examination based on written report. The assessment is performed in accordance with the 7-point scale.

Evaluation criteria: The criteria for evaluation are stated in the Joint Programme Regulations
Chapter 4: Entry into Force, Interim Provisions and Revision

The curriculum is approved by the Dean of The Technical Faculty of IT and Design and enters into force as of 1. September 2017 – for both 1st and 3rd semester.

Chapter 5: Other Provisions

5.1 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 spelling and formulation 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 Board of Studies 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.¹ If the project is written in English, the summary must be in Danish.² The summary must be at least 1 page and not more than 2 pages. The summary is included in the evaluation of the project as a whole.

5.2 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
In the individual case, the Board of Studies can approve successfully completed (passed) programme elements from other Master's programmes in lieu of programme elements in this programme (credit transfer). The Board of Studies 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 Board of Studies based on an academic assessment. See the Joint Programme Regulations for the rules on credit transfer.

5.3 Rules for examinations
The rules for examinations are stated in the Examination Policies and Procedures published by The Technical Faculty of IT and Design, The Faculty of Engineering and Science, and the Faculty of Medicine on their website.

5.4 Exemption
In exceptional circumstances, the Board of Studies 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.

5.5 Rules and requirements for the reading of texts
At programmes taught in Danish, 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. At programmes taught in English, it is assumed that the student can read academic text and use reference works, etc., in English.

¹ Or another foreign language (upon approval from the Board of Studies).
² The Board of Studies can grant exemption from this.
5.6 Additional information
The current version of the curriculum is published on the Board of Studies' website, including more detailed information about the programme, including exams.