Curriculum for the Master’s Programme in Techno-Anthropology

Aalborg University

September 2018
Preface:
Pursuant to Act 261 of March 18, 2015 on Universities (the University Act) with subsequent changes, the following curriculum is stipulated. The program also follows the Joint Programme Regulations and the Examination Policies and Procedures for The Faculty of Engineering and Science, The Faculty of Medicine and The Technical Faculty of IT and Design.
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Chapter 1: Legal Basis of the Curriculum, etc.

1.1 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) with subsequent changes 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.

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

1.3 Study Board affiliation
The Master’s programme falls under the Study Board of Techno-Anthropology, Sustainable Design and Integrated Food Studies

1.4 Body of External Examiners
The Master’s programme is primarily associated with the Body of External Examiners of Engineers, and secondarily the Danish National Anthropological Examiner Corps.

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

2.1 Admission
Applicants with a legal claim to admission (restræv):
- Bachelor of Science (BSc) in Techno-Anthropology (CPH), Aalborg University

Applicants without legal claim to admission:
- Bachelor of Science (BSc) in Teknoantropologi (AAL), AAU
- Bachelor of Science (BSc) in Arkitektur og Design, AAU
- Bachelor of Science (BSc) in Art and Technology, AAU
- Bachelor of Science (BSc) in Bioteknologi, AAU
- Bachelor of Science (BSc) in By-, Energi- og Miljøplanlægning, AAU
- Bachelor of Science (BSc) in Bygge- og Anlægskonstruktion, AAU
- Bachelor of Science (BSc) in Byggeri og Anlæg med specialisering i Bygge- og Anlægskonstruktion, AAU
- Bachelor of Science (BSc) in Byggeri og Anlæg med specialisering i Indeklima og Energi, AAU
- Bachelor of Science (BSc) in Byggeri og Anlæg med specialisering i Vand og Miljø. AAU
- Bachelor of Science (BSc) in Byggeri og Anlæg med specialisering i Veje og Trafik. AAU
- Bachelor of Science (BSc) in Chemical Engineering and Biotechnology, AAU
- Bachelor of Science (BSc) in Datalogi, AAU
- Bachelor of Science (BSc) in Elektronik og IT, AAU
- Bachelor of Science (BSc) in Energi, AAU
• Bachelor of Science (BSc) in IT, Communication and New Media, AAU
• Bachelor of Science (BSc) in Internetteknologier og Computersystemer, AAU
• Bachelor of Science (BSc) in Kemiteknologi, AAU
• Bachelor of Science (BSc) in Kommunikation og Digitale Medier, AAU
• Bachelor of Science (BSc) in Maskin og Produktion, AAU
• Bachelor of Science (BSc) in Maskinkonstruktion, AAU
• Bachelor of Science (BSc) in Medialogy, AAU
• Bachelor of Science (BSc) in Miljøvidenskab, AAU
• Bachelor of Science (BSc) in Nanoteknologi, AAU
• Bachelor of Science (BSc) in Psykologi, AAU
• Bachelor of Science (BSc) in Robotics, AAU
• Bachelor of Science (BSc) in Sociologi, AAU
• Bachelor of Science (BSc) in Software, AAU
• Bachelor of Science (BSc) in Sundhedsteknologi, AAU
• Bachelor of Science (BSc) in Sustainable Biotechnology, AAU
• Bachelor of Engineering (B Eng) in Byggeri og Anlæg, AAU
• Bachelor of Engineering (B Eng) in Byggeri og Industri, AAU
• Bachelor of Engineering (B Eng) in Bæredygtig Energiteknik, AAU
• Bachelor of Engineering (B Eng) in Eksportteknologi, AAU
• Bachelor of Engineering (B Eng) in Kemi og Bioteknologi, AAU
• Bachelor of Engineering (B Eng) in Maskinteknik, AAU
• Bachelor of Engineering (B Eng) in Nanoteknologi, AAU
• Bachelor of Science (BSc) in Antropologi, AU
• Bachelor of Science (BSc) in Antropologi, KU
• Bachelor of Science (BSc) in Market and Management Anthropology, SDU
• Bachelor of Science (BSc) in Humanistisk Teknologi, RUC
• Bachelor of Science (BSc) in Naturvidenskab, RUC
• Bachelor in Bioanalytisk diagnostik, Metropolitan UC
• Bachelor in Bioanalytisk diagnostik, Absalon
• Bachelor in Bioanalytisk diagnostik, VIA UC
• Bachelor in Bioanalytisk diagnostik, UC Syddanmark
• Bachelor in Bioanalytisk diagnostik, Lillebælt UC
• Bachelor in Radiografi, Metropolitan UC
• Bachelor in Radiografi, UCN
• Bachelor in Radiografi, Lillebælt UC
• Bachelor in Sygepleje, Metropolitan UC
• Bachelor in Sygepleje, Metropolitan UCC
• Bachelor in Sygepleje, Absalon
• Bachelor in Sygepleje, Lillebælt UC
• Bachelor in Sygepleje, UC Syddanmark
• Bachelor in Sygepleje, VIA UC
• Bachelor in Sygepleje, UCN
• Bachelor in Ergoterapi, Metropolitan UC
• Bachelor in Ergoterapi, Absalon
• Bachelor in Ergoterapi, Lillebælt UC
• Bachelor in Ergoterapi, UC Syddanmark
• Bachelor in Ergoterapi, VIA UC
• Bachelor in Ergoterapi, UCN
• Bachelor in Fysioterapi, Metropolitan UC
• Bachelor in Fysioterapi, UCC
• Bachelor in Fysioterapi, Absalon
• Bachelor in Fysioterapi, Lillebælt UC
• Bachelor in Fysioterapi, UC Syddanmark
• Bachelor in Fysioterapi, VIA UC
• Bachelor in Fysioterapi, UCN
• Bachelor in Jordemoderkundskab, Metropolitan UC
• Bachelor in Jordemoderkundskab, UC Syddanmark
• Bachelor in Jordemoderkundskab, UCN

2.2 Degree designation in Danish and English
The Master’s programme entitles the graduate to the designation cand.scient. (candidatus/candidata scientiarum) i teknoantropologi. The English designation is: Master of Science (MSc) in Techno-Anthropology.

2.3 The program’s specification 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.

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 programs). 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 programme:

The graduate of the Master's programme can:

Knowledge
- Explain and compare a broad selection of socio-technical theories, that, in selected areas, is based on the highest international research.
- Explain and critically reflect on a broad selection of qualitative, interactional, interventional and ethnographic methods of relevance to science, technology and innovation that in selected areas is based on the highest international qualitative research.
- Identify and critically evaluate key processes of scientific and technological development, including research strategies, development principles, institutional conditions, industrial dynamics, political regulation and knowledge controversies.
- Identify, explain and compare different perspectives on exemplary technology cases from different technological domains.
- Paraphrase and critically evaluate professional literature used in different technological domains.

Skills
- Develop new analyses and assessments of social, societal and ethical conditions, challenges and implications of complex technologies.
- Contribute through research-based advice on the management of social, societal and ethical conditions, challenges and implications of complex technologies.
- Engage in dialogue on professional, disciplinary and interdisciplinary topics with stakeholders, and representatives of different professions and disciplines within selected technological domains.
- Apply a broad selection of interactive, interventional, experimental and ethnographic methods.

Competencies
- Participate in initiation, mediation and facilitation of interdisciplinary team-based innovational processes.
- Participate in the management of complex work and processes related to the development of robust technological solutions that are professional and socially responsible.
- Support the transformation of technological opportunities into socially responsible products and systems that require new solutions.
- Take responsibility for own professional development and specialization.
Chapter 3: Content and Organisation 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. Examinations are defined in the curriculum.

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

- lectures
- classroom instruction
- exercises (individually and in groups)
- case analysis
- project work
- teacher and supervisor feedback
- seminars and workshops
- reflection
Overview of the programme:

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 or by assessment by the supervisor only).

<table>
<thead>
<tr>
<th>Semester</th>
<th>Project = P Course = C</th>
<th>Module</th>
<th>ECTS</th>
<th>Assessment</th>
<th>Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>P</td>
<td>Interdisciplinary Knowledge Production: Analysis and Dissemination of BSc Knowledge Production and Technology in Practice</td>
<td>5</td>
<td>Pass/Fail</td>
<td>Internal</td>
</tr>
<tr>
<td></td>
<td>P</td>
<td>Technology in Practice</td>
<td>10</td>
<td>7-point scale</td>
<td>Internal</td>
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<tr>
<td></td>
<td></td>
<td>Techno-Anthropological Problems and Theories</td>
<td>10</td>
<td>7-point scale</td>
<td>Internal</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>1A Ethnographic Methods</td>
<td>5</td>
<td>7-point scale</td>
<td>Internal</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>1B Ecological Economics*</td>
<td>5</td>
<td>7-point scale</td>
<td>Internal</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>1C Emerging and Cutting Edge Science and Technology**</td>
<td>5</td>
<td>7-point scale</td>
<td>Internal</td>
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<tr>
<td>2nd</td>
<td>P</td>
<td>Technological Innovation and Design</td>
<td>15</td>
<td>7-point scale</td>
<td>External</td>
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<tr>
<td></td>
<td>C</td>
<td>Facilitation of Design Processes and Technological Innovation</td>
<td>10</td>
<td>Pass/Fail</td>
<td>Internal</td>
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<tr>
<td></td>
<td>C</td>
<td>Mapping Controversies</td>
<td>5</td>
<td>7-point scale</td>
<td>Internal</td>
</tr>
<tr>
<td>3rd</td>
<td>P</td>
<td>3A Development Project: Action Research</td>
<td>25</td>
<td>7-point scale</td>
<td>Internal</td>
</tr>
<tr>
<td></td>
<td>P</td>
<td>3B Inquiry Project: Ethnographic Fieldwork</td>
<td>25</td>
<td>7-point scale</td>
<td>External</td>
</tr>
<tr>
<td></td>
<td>P</td>
<td>3C Academic Internship</td>
<td>25</td>
<td>7-point scale</td>
<td>Internal</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>Reflexive Project Design</td>
<td>5</td>
<td>Pass/Fail</td>
<td>Internal</td>
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<tr>
<td>4th</td>
<td>P</td>
<td>Master’s Thesis</td>
<td>30</td>
<td>7-point scale</td>
<td>External</td>
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</table>

On the 1st semester students who have used ethnographic methods in at least two semesters on their Bachelor’s degree are required to follow and pass either 1B Ecological Economics or 1C Emerging and Cutting Edge Science and Technology. All other students must enroll and pass 1A Ethnographic Methods.

* 1B Ecological Economy is offered if 20 students enroll in the module.
** 1C Emerging and Cutting Edge Science and Technology is possibly offered as a module that links students and lecturers from the Copenhagen and Aalborg campuses via video-conference
On the 3rd semester the student can choose between three different project modules: 3A Development Project: Action Research, 3B Inquiry Project: Ethnographic Fieldwork and 3C Academic Internship.
Descriptions of modules

1st semester:

Title: Interdisciplinary Knowledge Production: Analysis and Dissemination of BSc Knowledge Production and Technology in Practice / Tværfaglig vidensproduktion: Analyse og formidling af BSc vidensproduktion og teknologi i praksis

Objective: The purpose of the pilot project is for students to acquire practical experience with collaborative group work that involves multiple disciplinary backgrounds. The pilot project will support students’ abilities to identify and engage with challenges, barriers and potentials in Techno-Anthropological work across disciplines.

Students who complete the module can:

Knowledge
- explain competencies that fellow students bring into the Master’s program
- communicate a scientific message in short
- explain differences between mono-disciplinary, multi-disciplinary, inter-disciplinary and trans-disciplinary
- present technical and socio-technical issues relevant for the study of technology in practice
- explain the Aalborg model for problem-based learning

Skills
- analyse professional domain practices in terms of their objectives
- identify interdisciplinary issues in technology development
- discuss Techno-Anthropology as an interdisciplinary area

Competencies
- design, produce and present a scientific poster
- integrate different domain knowledge, paradigms and professional competencies into an inter-disciplinary research theme
- draft initiating problems relevant for the study of Technology in Practise from a socio-technical perspective

Type of instruction: Project work, supervisor and teacher feedback, lectures, classroom instructions, exercises, seminars, case analysis, reflection.

Exam format: Active participation. Each course participant will:
- produce a scientific poster communicating the results from their BSc project (individual)
- in a group write a 10 page essay with the title: An interdisciplinary research theme for the study of Technology in Practice and supplemented with a sub-title of the group’s choice
- present the individual poster and group essay in seminars

Evaluation criteria: The element is passed when all of these elements are approved by the supervisor.
Title: Technology in Practice / Teknologi i praksis

Recommended academic prerequisites: The course module is based upon knowledge acquired in the module Interdisciplinary Knowledge Production: Analysis and Dissemination of BSc Knowledge Production and Technology in Practise

Objective: The purpose of this project is to apply Techno-Anthropological methods to gain insight into a technology domain’s key processes and to identify drivers and barriers for responsible innovation.

Students who complete the module can:

Knowledge

- explain principles and methods used in the development of technology in a selected technology domain
- explain selected qualitative research methods appropriate to the study of expert cultures in a specific technological domain
- explain historical and contemporary needs and uses of a specific technology in a specific domain.

Skills

- select scientific methods, tools and competencies appropriate for the study of a technological practise
- portray and critical evaluate the conceptual landscape of innovation in a technology domain
- identify expert cultures in a selected technology domain
- identify drivers and barriers for responsible technological innovations
- analyze technological design and innovation in terms of a) sustainability or b) risks, controversies, responsibilities and dilemmas

Competencies

- plan and implement an analysis of technology in practice that includes the use of qualitative methods
- communicate complex technological knowledge and practice
- point out and reflect on societal problems related to the development of a selected technology in a specific domain
- make use of the diversities presented in the project group and reflect on the impact on the work processes in problem-based and project-oriented work
- critically reflect on own analysis

Type of instruction: Project work, supervisor feedback, seminars, reflection

Exam format: Oral examination based on a written report

Evaluation criteria: Are stated in the Joint Programme Regulations
Title: Techno-Anthropological Problems and Theories / Teknoantropologiske problemer og teorier

Objective: Students who complete his module can:

Knowledge
- present and explain different anthropological, sociological and philosophical theories relevant for analysis and discussion of cases regarding the development of robust and socially responsible technology
- explain how discourses, institutions and professions have historically shaped the conceptual landscape of robust and socially responsible technological innovation
- describe the development processes in organisations, including central concepts as expertise, expert culture, power, ethics, responsibility, public understanding and design as an integral part of technology development

Skills
- analyse and evaluate cases dealing with robust and socially responsible technological innovation
- identify the problems, challenges and controversies in cases regarding technological innovation, development, implementation, assessment and use
- apply socio-technical theories in order to analyse emergent and controversial technological problems

Competencies
- transfer knowledge and skills achieved in the module to suggest or discuss the opportunities for development of robust and socially responsible technological solutions

Type of instruction: Lectures, classroom instructions, exercises, seminars, case analysis, teacher feedback, reflection.

Exam format: Oral examination.

Evaluation criteria: Are described in the Joint Programme Regulations
Title: Ethnographic Methods / Etnografiske metoder

Objective: Students who complete this module can:

Knowledge
- explain selected anthropological and cultural theories as a basis for empirical studies of technology and culture.
- present exemplary cases of techno-anthropological field studies
- explain ethnographic fieldwork as a mode of knowledge production

Skills
- compare methodological approaches within anthropology and ethnography
- conduct qualitative interviews and use different coding schemes
- plan and carry out participant observation
- apply anthropological and cultural theories to reflect on and analyze cases and empirical material

Competencies
- choose and justify the relevance of qualitative data collection methods in relation to a study of technology
- discuss and account for analytical opportunities and challenges in relation to social and cultural analysis of cases of scientific or technological development processes.

Type of instruction: Lectures, classroom instructions, exercises, seminars, case analysis, teacher feedback, reflection.

Exam format: Oral examination.

Evaluation criteria: Are described in the Joint Programme Regulations
Title: Ecological Economics / Økologisk økonomi

The number of students is limited to 35.

Objectives: Students who complete the module can:

Knowledge

- explain the key concepts and theories of ecological economics
- explain the foundation of ecological economics in thermodynamics and ecology
- explain the main differences between mainstream and ecological economic perspectives
- explain the common roots and shared fields of ecological economics, ecological anthropology and political ecology

Skills

- apply ecological economic concepts in analyses of relations between economic growth, energy and environment
- compare and assess different approaches to valuation and decision making in relation to concrete analyses of environmental problems
- analyse the relationship between institutional frameworks and environmental problems and discuss the possibilities for governance

Competencies

- interpret how different economic paradigms are reflected in political strategies and measures to address economic and environmental crises
- cooperate with professionals from different disciplinary backgrounds on sustainability strategies and mediate between different patterns of thought.

Type of instruction: The classes include a combination of lectures, group work, exercises and student presentations. Students have to do the readings before each class and to prepare short presentations or interventions. The written work that forms the basis for the assessment must be done during the course as well.

Exam format: Oral exam.

Evaluation criteria: Are described in the Joint Programme Regulations
Title: Emerging and Cutting Edge Science and Technology / Ny banebrydende videnskab og teknologi

Objective: Students who complete this module can:

Knowledge

- account for selected, sectorial, cutting-edge and emerging technological innovations
- explain the role of the new technologies in the advancement of science
- account for how technological problems and advances often create a demand for new scientific knowledge
- discuss the societal relevance of particular emerging technologies
- account for the potential risks of particular cutting-edge technologies

Skills

- analyse how cutting edge science suggests new kinds of behaviors, including those not imagined before that lead to new technological trends and developments.
- evaluate how the availability of new technology sparks scientific advancement
- methodologically analyse how technology solves practical problems and serves human needs and also creates new problems and needs

Competencies

- analyse emerging technological products and processes
- communicate with scientist, technicians, engineers and technologists using moderately technical terminology
- identify and promote technological innovations for sustainable transitions

Type of instruction: A combination of lectures and workshops that include selected presentations from researchers and developers in science and technology that are representative of cutting-edge and relevant technological innovations.

Exam format: Oral exam.

Evaluation criteria: Are described in the Joint Programme Regulations
2nd semester

Title: Technological Innovation and Design / Teknologisk innovation og design

Recommended academic prerequisites: The course module is based upon knowledge acquired in the module Technology in Practice (1st semester)

Objective: The aim of this module is for students to acquire experience with the application of theoretical and methodological knowledge, skills and competencies within the Techno-Anthropological repertoire to qualify the development or evaluation of an innovation process for design of a technology or a specific product.

Students who complete this module can:

Knowledge

- present theories of the interplay between innovation strategies and technology development, product design, and product evaluation by selected actors/user groups
- present theories and methods for analysis of the cultural or institutional context of technological product innovation in a technology domain
- present ethnographic or interventionist research methods of relevance to a specific technology design, product development or product evaluation

Skills

- draft a plan for how either an ethnographic study or an intervention study with an arranged situation of user involvement (e.g. a design game) may contribute to technology or product development or product evaluation
- independently develop and carry out a qualitative study design that can contribute with knowledge relevant to the development or evaluation of an innovation process for design of a technology or a specific product
- develop a technology domain specific controversy mapping as input to the problem analysis.
- develop a plan for facilitation and documentation of a design process

Competencies

- reflect on how ethnographic and interventionistic approaches may facilitate interdisciplinary collaboration in technology and/or product design, development or evaluation with in a technology domain
- reflect on potential controversies and ethical dilemmas that may arise during product development or implementation.

Type of instruction: Project work, supervisor feedback, seminars, reflection

Exam Format: Oral examination based on a written project report.

Evaluation criteria: Are described in the Joint Programme Regulations.
Title: Facilitation of Design Processes and Technological Innovation / Facilitering af designprocesser og teknologisk innovation

Objective: Students who complete this module can:

Knowledge
- explain different technological innovation concepts, -methods, -tools, -perspectives and -strategies
- explain how innovation and change processes can affect design of technology or design of products
- present principles and methods for developing user-oriented and user-involving design processes.
- explain theories of user-designer relations.

Skills
- draft an actor oriented innovation and design strategy
- plan and conduct a user/actor-involving design game or workshop.
- identify appropriate tools, materials and techniques for facilitation and documentation design processes
- produce a mock-up, prototype, scenario, sketch or other kind of material intermediary outcome of a design process

Competencies
- plan, facilitate and organize design processes
- communicate the results of the innovation and design process and the results of the design game or workshop.

Type of instruction: Lectures, classroom instructions, exercises, seminars, case analysis, teacher feedback, reflection.

Exam format: Active participation: Three written assignments must be completed,handed in and approved by the module coordinator during the semester.

Evaluation criteria: As described in the Joint Programme Regulations.
Title: Mapping Controversies / Kortlægning af offentlige videnkontroverser

Objective: Students who complete the module have:

Knowledge
- explain theories about contested knowledge, public knowledge controversies and controversy mapping
- explain theories about the learning potentials and democratic potentials of controversies

Skills
- apply a range of digital/qualitative research tools such as web crawls or bibliometric surveys to trace out the way in which issues become controversial
- use dynamic visualisation tools to map controversies in an accessible manner
- produce a website or a similar digital product that enables participants in a controversy to 'navigate' the complexities of the issue.
- work collaboratively with large amounts of heterogeneous data
- conduct visual network analysis

Competencies
- approach the interplay between science and politics from a practical perspective
- provide a navigational instrument to the participants in a controversy
- develop and provide a narrative account of the results of the controversy mapping.

Type of instruction: Lectures, classroom instructions, exercises, seminars, case analysis, teacher feedback, reflection.

Exam format: Oral examination in which visualisations of controversies (homepages) are presented and defended.

Evaluation criteria: Are stated in the Joint Programme Regulations
3rd semester

Title: Development Project: Action Research / Udviklingsprojekt: Aktionsforskning

Recommended academic prerequisites: The course module is based upon knowledge acquired in the module Technological Innovation and Design

Objective: During this module students will conduct research activities that support and qualify technological transformation by involving affected people. Students will gain experiences with different action research methodologies, and get familiar with how they can be utilised in a professional context. Students are to plan and execute a development project and thereby promote, test and evaluate responsible technological innovation; experimentation with new and emerging technologies; or organizational development in technology intensive contexts.

Upon completion of the module, the student can:

Knowledge

- discuss the phases of action research, including those of problem identification, planning, action, observation, and reflection
- explain classic and contemporary approaches in action research work, including different definitions, level of participation/involvement and underpinning assumptions
- describe responsible technological innovation; experimentation with new and emerging technologies; or organizational development in technology intensive contexts

Skills

- plan, execute and evaluate action research methods in a professional setting
- account for and analyse results from the project’s action research methodology
- present reflections on how action research can relate to responsible technological innovation; experimentation with emerging technologies; or organizational development in technology intensive contexts on a practical and theoretical level.

Competencies

- assess potentials and limitations of various action research approaches, including those related to the quality criteria for and the ethical dimensions of action research.
- facilitate participation in action research processes and in responsible technological innovation; experimenting with emerging technologies; or organizational development in technology intensive contexts.
- evaluate how action research approaches can help to create new practices in scientific and technological research and development.

Type of instruction: Project work, supervisor feedback, seminars and workshops, reflection

Exam Format: Oral examination based on a written project report.

Evaluation criteria: Are described in the Joint Programme Regulations.
Title: Inquiry Project: Ethnographic Fieldwork / Undersøgelsesprojekt: Etnografisk feltarbejde

Recommended academic prerequisites: The course module is based upon knowledge acquired in the module Technological Innovation and Design

Objective: The purpose of this project module is to conduct ethnographic fieldwork to gain insight into scientific and technological practices within a chosen technology domain, and to liaise ethnographic fieldwork to technological product / process development or testing.

Students who complete the module can

Knowledge

• identify methods and theories that support studies of scientific and technological practices
• explain the methods of ethnographic fieldwork, including participant observation and the use of field notes and interviews
• explain quality criteria of ethnographic methods and anthropological knowledge production

Skills

• plan and carry out ethnographic fieldwork
• discuss how the project's fieldwork build upon the student(s)' own disciplinary background(s)
• liaise ethnographic fieldwork to technological product / process development or testing
• liaise ethnographic practice with theoretical insight specific to technological product / process development or testing

Competencies

• on the basis of ethnographic methods assess practical problems associated with technological product / process development or testing
• assess potentials and limitations of various ethnographic approaches, including those related to the validity of ethnographic methods as well as to the ethical dimensions of ethnographic work
• evaluate how socio-technical/anthropological theories and ethnographic methods can help create new practices in scientific and technological research and development

Type of instruction: Project work, supervisor feedback, seminars, reflection

Exam format: Oral examination based on a written project report.

Evaluation criteria: Are stated in the Joint Programme Regulations
Title: Academic Internship / Projektorienteret forløb i en virksomhed

Objectives
The student conducts a project report within an external organisation in order to acquire practical experience in solving advanced techno-anthropological challenges in a professional context.

Students who complete the module can

Knowledge
- hold knowledge of techno-anthropological methods for analysis of advanced tasks within the field of the external organisation.
- understand the connection between theory and practice.
- hold knowledge of the organisational structure and the work of an organisation seen from an interdisciplinary and techno-anthropological perspective.

Skills
- be able to apply techno-anthropological methods for analysis and solving of advanced tasks within the field of the external organisation.
- be able to compare and evaluate assumptions, limitations and uncertainties related to the methods applied in connection to finding solutions of advanced challenges within the field of the external organisation.

Competencies
- be able to handle development-oriented situations in connection to either studying or working.
- be able to use the correct terminology in oral, written or graphical communication and documentation of challenges and solutions within the field of the external organisation.
- be able to analyse the academic, professional and social benefits of the traineeship.
- be able to communicate these results in a project report
- be able to evaluate the learning result of the academic internship

Exam format and evaluation criteria:
The academic internship is concluded with an individual oral examination based on the student’s project report. The examination will be internal and the assessment is according to the 7-point scale. The examination is conducted by the AAU project supervisor. The external supervisor or other relevant external representatives can attend, but not participate in, the examination.

The student presents the academic internship and the professional results, including the major projects in particular. The evaluation shall include a discussion and assessment of the academic internship and the study programme, and a reflection of the consistency of the academic internship with the study programme’s activities is made. The evaluation is based on an assessment of the student’s presentation and discussion of the project report and the academic internship, and the project report.
Title: Reflexive Project Design / Refleksion over projekt-design

Objective: Students who complete the module can:

Knowledge
- present key explorative, participatory and experimental project-types
- explain theories, methods and perspectives on reflexive project work
- present theories and cases about organisations and professional conduct

Skills
- draft a study or project proposal with a reflexive component that is relevant to the project’s organizational and institutional context
- identify appropriate concepts, methods and cases for analyzing their own work in professional organizations

Competencies
- reflect critically upon their own role in relation to the field
- argue for choices in research or project design that take into account their own role within the field’s organizational and institutional setup

Type of instruction: Lectures, classroom instructions, exercises, seminars and workshops, case analysis, teacher feedback, reflection.

Exam format: Active participation: a number of written assignments must be completed, handed in and approved by the module coordinator during the semester.

Evaluation criteria: Are stated in the Joint Programme Regulations
4th semester

Title: Master's Thesis / Kandidatspeciale

Recommended academic prerequisites: The module is based upon knowledge acquired in 1st – 3rd semester

Objective: During the Master’s thesis the student will carry out a Techno-Anthropological research project following good academic and professional practice that directly or indirectly contributes to the development of robust and socially responsible solutions to societal challenges.

Students who complete the module can:

Knowledge

- explain and justify the design of the project
- explain the socio-technical theories that constitutes the projects' theoretical resources
- explain and justify the project's empirical methods, e.g. qualitative, interactional, interventional or ethnographic methods
- explain central technical or scientific processes within the chosen theme or field, e.g. key processes of scientific and technological development, research strategies, innovations, institutional framework, industrial dynamics, political regulation and knowledge controversies
- explain central elements from the technical literature relevant to the addressed theme or field.

Skills

- conduct a project that demonstrates competent application of interactive, interventional, experimental, analytical or ethnographic methods.
- conduct a project that contributes to the development of robust and socially responsible solutions to societal challenges, e.g. by supporting transformation of technical possibilities, by facilitating interdisciplinary collaboration, or by generating new knowledge about complex social, societal or ethical implications of technologies
- identify and present the projects' premises, analytical strategy, results and possible implications.

Competencies

- initiate and lead interdisciplinary collaboration and assume professional responsibility
- evaluate and account for the interdisciplinary aspects of analyses that have been conducted and solutions that were proposed
- make general conclusions on the basis of the work produced and in response to thematic and theoretical literature

Type of instruction: Project work, supervisor feedback, seminars, reflection
Exam format: Oral examination based on a written report.

Evaluation criteria: Are stated in the Joint Programme Regulations
Chapter 4: Entry into Force, Interim Provisions and Revision

The curriculum is approved by the Dean and enters into force as of September 2018.

Students who wish to complete their studies under the previous curriculum from 2016 must conclude their education by the summer examination period 2019 at the latest, since examinations under the previous curriculum are not offered after this time.

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 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 must be in Danish. 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 program at a university in Denmark or abroad
The study board can approve successfully completed (passed) program elements from other Master’s programmes in lieu of program 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.

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 on their website.

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1 Or another foreign language (upon approval from the study board).
2 The study board can grant exemption from this.
5.4 Exemption

In exceptional circumstances, the study board 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 concerning the reading of texts

It is assumed that the student can read academic texts in his or her native language as well as in English and use reference works etc. in other European languages.

5.6 Additional information

The current version of the curriculum is published on the study board's website, including more detailed information about the programme, including exams.