

UNIVERSITY OF SOUTHERN DENMARK

CURRICULUM FOR

Master of Science in

IT Product Design

(cand.it.)

FACULTY OF HUMANITIES

2017

Contents

I. Provisions for the Master’s Programme in IT Product

Design	1
<i>A. Objectives and Prerequisites</i>	<i>1</i>
§ 1. The Master’s Programme in IT Product Design..	1
§ 2. Competence Description.....	1
§ 3. Students' Work with Relevant Research Environments.....	3
§ 4. Employment Profile.....	3
§ 5. Admission Requirements.....	4
§ 6. Title.....	4
<i>B. Structure and Progression</i>	<i>5</i>
§ 7. Academic Progression and Context	5
§ 8. Progression for the master programme in IT Product Design	7
§ 9. Principles of Examination	8
§ 10. Humanities Model for Learning and Teaching ..	8
§ 11. List of Examinations.....	11
<i>C. Specific Definitions and Examination Provisions for the Programme</i>	<i>12</i>
§ 12. Joint Provisions.....	12
§ 13. Language of Teaching and Examination Language.....	12
§ 14. Internationalisation	12

II. Description of the Master's Programme Disciplines 13

<i>1st Semester: Design Research Horizon</i>	<i>13</i>
§ 15. Exploring Design	13
§ 16. Design Research 1	13
§ 17. Design Skills	14
§ 18. Design Specialisation A.....	14
<i>2nd Semester: Prototyping and Participatory Practices</i>	<i>15</i>
§ 19. Wearable Technologies.....	15
§ 20. Collaborative Technologies	15
§ 21. Multi-stakeholder Innovation.....	16
§ 22. Professional Apprenticeship.....	16
<i>3rd Semester: Research Organisation</i>	<i>17</i>
§ 23. Social Design	17
§ 24. Design Research 2.....	18
§ 25. Electives	18
§ 26. Suggested elective: Critical Reflection	19
§ 27. Suggested elective: Design Specialisation B ...	19
§ 28. In-company Project (elective)	20
<i>4th Semester: Master Thesis</i>	<i>21</i>
§ 29. Master Thesis	21

III. Coming into Force and Transitional Provisions22

§ 30. Applicability.....	22
§ 31. Validity.....	22
§ 32. Transitional provisions	22
§ 33. Later amendments to the curriculum.....	22

IV. Joint Provisions for Humanities Programmes at the University of Southern Denmark23

<i>Appendix 1: General Objectives Matrix.....</i>	<i>24</i>
<i>Appendix 2: Qualification Matrix</i>	<i>26</i>

I. Provisions for the Master's Programme in IT Product Design

The master's programme in IT Product Design is offered in pursuance of the Danish Ministerial Order no. 1328 of 15 November 2016 on Bachelor and Master's Programmes at Universities.

A. Objectives and Prerequisites

§ 1. The Master's Programme in IT Product Design

IT Product Design is a full-time, two-year master's programme offered by the University of Southern Denmark in Kolding. It is established under the It-vest, networking universities, an educational and scientific network between the three universities in the western part of Denmark.

The Department of Design and Communication is responsible for the programme under the auspices of the Academic Study Board for Information and Communication Programmes in Kolding. The total course load of the master programme is 120 ECTS (European Credit Transfer System) points, equivalent to a full-time student's workload over the course of 2 years.

The degree comes under the purview of the External Examiner Corps for Engineering Programmes CensorNet (www.censornet.dk).

§ 2. Competence Description

The purpose of the programme in IT Product Design is to qualify students with the help of discipline-specific and subject-related skills, knowledge and methods.

The master's programme represents the full academic consolidation of students' overall academic progress. Masters will have acquired academic and professional competences that qualify them to perform a wide range of functions.

Competence objectives for the programme are divided into general and discipline-specific objectives. The general competence objectives cover the broad skills that new masters will have acquired on completion of the programme, while the discipline-specific competence objectives cover the core of the programme.

General Objectives

Masters must be able to:

FRAME

- 1) Delineate and define a problem at a high scientific level
- 2) Investigate, analyse and solve problems with the help of relevant academic theories and methods as well as incorporate current international research
- 3) Systematise complex knowledge and data as well as critically identify and prioritise aspects that are significant to the topic

ARGUE

- 4) Critically master the various theories and methods of the field
- 5) Employ terminology in a precise and consistent manner
- 6) Argue at a scientific level
- 7) Initiate and carry through an academic dialogue

FOCUS

- 8) Focus and create coherence in their work
- 9) Address sources critically and document these using references, notes and bibliographies

COMMUNICATE

- 10) Use discipline-oriented language – written and/or spoken – accurately and correctly

IT Product Design Curriculum

- 11) Communicate research-based knowledge and discuss complex scientific issues so that they become relevant and understandable to different target groups

ORGANISE

- 12) Manage work and developmental situations that are complex and require new approaches and collaborate with others, including the ability to receive and give constructive criticism
- 13) Work independently, in a disciplined, structured and goal-oriented way, including the ability to meet deadlines and adhere to formal requirements
- 14) Use IT as a tool in connection with data analysis, information retrieval and verbal and written communication

FORMULATE

- 15) Understand and apply academic texts in English and in other languages
- 16) Formulate academic English

Discipline-specific Objectives

The discipline-specific objectives describe the programme's academic core and are divided into knowledge, skills and competences according to the "New Danish qualifications framework for higher education".

Masters must be able to:

Knowledge

- A) Understand the theories relating to the development of innovative IT products and services (and their use practices) in the contexts of private and public stakeholder interests. This knowledge is based on the highest international research within the fields of User Innovation, Interaction Design, Design Anthropology and others
- B) Understand and, on a scientific basis, reflect on the knowledge of the fields of IT Product Design and be able to identify scientific challenges

Skills

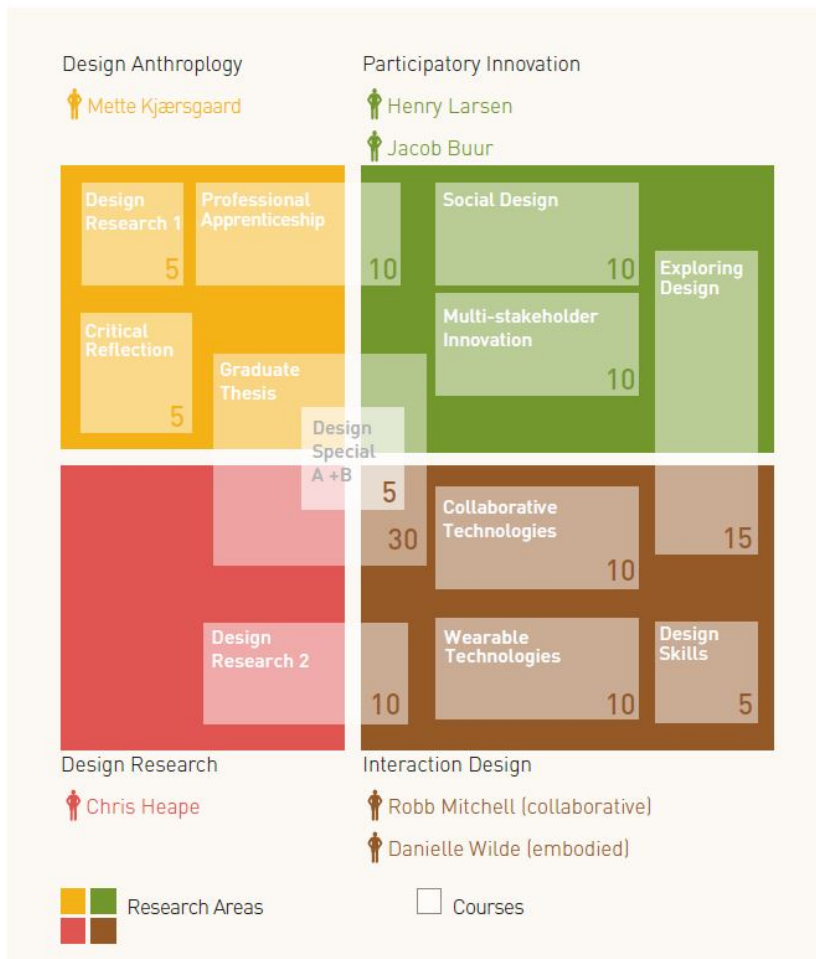
- C) Master the scientific methods of designing user interaction for product interfaces and services based on analysis and critical reflection of stakeholder interests and user empathy
- D) Facilitate collaboration between people with different stakes in an organisation using materials and conversation tools designed for the situation
- E) Access and select from among the scientific theories, methods, tools and general skills of IT Product Design and to set up new models of analysis and problem solving on a scientific basis
- F) Communicate research-based knowledge and discuss professional and scientific issues with both academic peers and non-specialists and thereby contribute to the continuous development of theories, methods, and technologies in the research fields of IT Product Design

Competences

- G) Organise development situations that are complex, unpredictable and require new solutions and pilot them in an organisation
- H) Independently establish collaboration between professional disciplines within design teams and with stakeholders outside the development organisation - users in particular
- I) Take responsibility for one's own professional development and specialisation

§ 3. Students' Work with Relevant Research Environments

The master's programme in IT Product Design is based in the academic environment in the Department of Design and Communication and in the cross-faculty SDU Design Research initiative at the University of Southern Denmark in Kolding. The researchers who teach the master's programme primarily study the topics of Participatory Innovation, Interaction Design, Design Anthropology and Design Research. Students are in regular contact with the researchers and frequently participate in research projects and other research-related activities. The figure below shows how the courses draw on the research fields.



§ 4. Employment Profile

Graduates of the Master's programme in IT Product Design will be able to take on different professional roles:

Design Anthropologist (or business anthropologist, design ethnographer, design researcher). Employed in user experience departments in larger organizations or in specialized design consultancies to study users and customers and provide market data for R&D functions.

User Innovator. Employed with marketing departments to innovate strategies for user/customer relations, to engage lead-users, to establish business models for novel product and service concepts, and to test new offerings with users and customers. C. **Service Design.** Employed in user experience or marketing departments to develop

IT Product Design Curriculum

new services with user involvement. Would also take responsibility for user studies and evaluation.

Interaction Designer (or User Experience Designer). Employed in design departments and user experience departments of larger organizations or in design consultancies to develop interactive products, wearable devices, healthcare products, user interfaces and interactive services.

User-Centred Engineer (or usability engineer). Employed in R&D departments in large and small organizations to develop user-friendly products and services. Would in smaller companies also take responsibility for user studies and user evaluation.

IT Product Design prepares graduates for product management and innovation leadership functions in their later careers. The programme also qualifies candidates to enter a PhD programme to pursue a research and education career.

§ 5. Admission Requirements

Bachelor degrees with right of admission to master's degrees:

There are no bachelor degrees with direct right of admission to the master's programme in IT Product Design.

Other degrees

The following bachelor degree programmes from the University of Southern Denmark and from other universities provide access to the master's programme in IT Product Design:

Anthropology:	BA in anthropology, sociology or similar
Business:	BA in business administration or similar
Communication:	BA in business communication or similar
Design:	BA or BSc in industrial design, graphic design, multimedia or similar
Engineering:	BSc or BEng in mechatronics, electronics, IT or similar

The programme accepts professional bachelors (e.g. nursing, education and multimedia) provided they have an acceptable level of Research Methodology (min. 5 ECTS).

Based on an individual assessment, the programme may accept applicants without a formal bachelor degree if they have equivalent academic qualifications.

The programme is based on a cross-disciplinary study environment. Therefore a balance in backgrounds is sought after when accepting new students.

Language requirements

At least English at level B, cf. Danish Ministerial Order on Admission and Enrolment on Master's (Candidatus) Programmes at Universities.

Alternatively, English language skills can be documented in one of the following ways:
1) TOEFL test with a score of min. 575/230/88
2) IELTS test with a score of min. 6.5
3) CAE with a minimum result of C or the CPE
4) a professional bachelor degree from Denmark taught solely in English.

§ 6. Title

The master's degree in IT Product Design entitles masters to the title:

In Danish: Cand.it. i produktdesign

In English: Master of Science (MSc) in Information Technology (Product Design)

B. Structure and Progression

§ 7. Academic Progression and Context

The master's programme in IT Product Design consists of:

- Constituent academic elements: 110 ECTS (incl. thesis 30 ECTS)
- Elective courses: 10 ECTS

The master's programme consists of a number of courses assessed one by one and a master thesis. Each course has an ECTS point figure indicating the weight of the course in the total programme. The equivalent of a one-year full-time workload is 60 ECTS. The required credit to complete the IT Product Design programme is 120 ECTS.

The programme is organised as a full-time education and requires students to contribute with time and energy equivalent to that of a full-time job. The programme is based on project work in a design studio. Students learn through completing projects in teams or individually. Theory is introduced both during the projects and in independent lectures and seminars throughout the semesters. Projects are organised in themes, but the actual topics within each theme are largely left for the students themselves to decide.

Programme Structure

The programme is divided into four semesters, each with its own rhythm to train a diversity of work practices:

1st Design Research Horizons: The first semester provides an outlook towards state-of-the-art research avenues through a series of intense projects.

2nd Prototyping and Participatory Practices: The second semester builds a professional practice through design studio activities, a major innovation project and disciplinary apprenticeships.

3rd Research Organisation: The third semester deepens the competence of cross-disciplinary design organisation and establishes design research competence in preparation for the thesis work. The third semester can also be spent abroad as an exchange student at one of the University of Southern Denmark's partner universities.

4th Master Thesis: The final semester brings all the competencies together in a rounded master thesis.

After the first two semesters of study students are encouraged to complete an internship with a company or research institution either during summer or in the third semester.

Study Profiles

Students have the opportunity to choose between two study profiles. This choice will be made in November when the students have to sign up for the spring semester courses. Students can choose between Participatory Innovation and Embodied Design:

Profile P: Participatory Innovation

Participatory Innovation educates students in how to critically understand and facilitate a product and service innovation process in a complex social context with a range of stakeholders, such as users, technicians, private manufacturers, service providers, public organisations, consultancies, etc. This profile investigates how multi-stakeholder engagement that includes private and public interests from a policy, commercial, an organisational perspective can provide radical new solutions. The scope of the programme also emphasizes material skill building and experiments exploiting how design materials can support collaboration and change among many stakeholders.

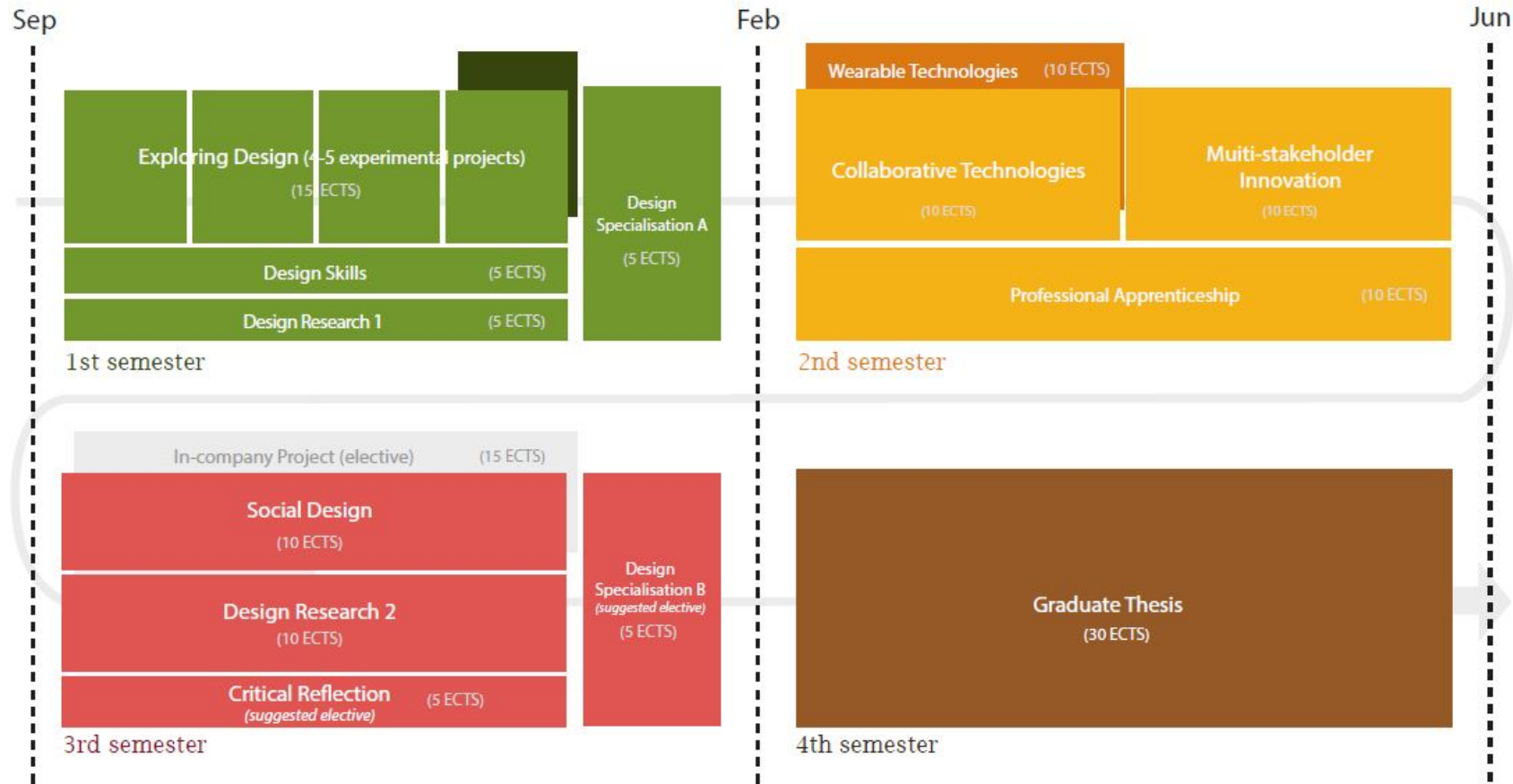
Profile E: Embodied Design

Embodied Design provides competencies in designing products and services on, for, or in close interaction with the human body. This profile explores how radical new materials and the proliferation of wearable devices are creating new possibilities for design in fields such as health care, industry, entertainment, sports, etc. The scope of the programme also explores the investigating and facilitating of different stakeholder perspectives in design processes that give equal emphasis to minds and bodies.

The qualification matrix in Appendix 1 describes how each course contributes to the specific competence objectives of the programme and hence the academic progression.

IT Product Design Curriculum

The figure below shows the course structure of the four-semester programme.



§ 8. Progression for the master programme in IT Product Design

4 th semester <i>Master Thesis</i>	Supervision				-	-
	30 ECTS				30	ECTS-points
	Master Thesis					
3 rd semester** <i>Research Organisation</i>	4 l/w	3 l for 6 w	3 l for 6 w	3-week student org.	Min. 104	Lessons per semester
	10 ECTS	10 ECTS	5 ECTS	5 ECTS	30	ECTS-points
	Social Design*	Design Research 2	Suggested Elective: Critical Reflection	Suggested Elective: Design Specialisation B*		
2 nd semester <i>Prototyping and Participatory Practices</i>	8 l for 6 w	6 l for 6 w	3 l/w		123	Lessons per semester
	10 ECTS	10 ECTS	10 ECTS		30	ECTS-points
	Collaborative Technologies or Wearable Technologies	Multi-stakeholder Innovation	Professional Apprenticeship			
1 st semester <i>Design Research Horizon</i>	6 l/w	3 l for 7 w	3 l 18 times	3-week student org.	Min. 153	Lessons per semester
	15 ECTS	5 ECTS	5 ECTS	5 ECTS	30	ECTS-points
	Exploring Design	Design Research 1	Design Skills	Design Specialisation A		

* Social Design and a 5 ECTS elective (see § 28) can be replaced by In-company Project

**Internationalisation: Students who choose to internationalise must do so in their 3rd semester.

§ 9. Principles of Examination

The purpose of examination is to assess whether, and to what extent, the qualifications attained by the student are consistent with the learning objectives established in the Danish Ministerial Order on Bachelor and Master's (Candidatus) Programmes at Universities (the University Programme Order, the Curriculum, and the respective semester guides). The IT Product Design programme includes the following types of exams:

Oral Exam Oral exams are typically prepared presentations based on project reports, essays or literature. They train the student's ability to focus on the essentials and communicate a complex message. Oral exams are public unless the students refuse public attendance or unless projects have been carried out under a non-disclosure agreement with e.g. a company. Oral exams can be individual or group exams. There is no preparation time for the oral exam on the date of the exam. The duration specified in each course includes grading and feedback.

Design Crit Design critiques are sessions in which students present their design results for open discussion and evaluation in class. Through design crits the students learn to accept and give critique of design results rather than design processes. Students also train to prepare material suitable for communication (e.g. prototypes, posters, videos). Crits are not open to public, but guests may be invited. Design crits can be facilitated individually or in groups. There is no preparation time for the design crits on the date the session is held. The duration specified in each course includes grading and feedback.

Portfolio Exam Students are encouraged to establish and maintain a presentable collection of their personal work achievements. The portfolio exam is a 15-min presentation of this collection to teachers and examiners, simulating a job interview in the industry followed by a 10-min discussion. The students select which media they prefer and decide on the format of the presentation (room arrangement, activities, teacher roles, etc.). The portfolio exam is individual. There is no preparation time for the portfolio exam on the date of the oral exam. The duration specified in each course includes grading and feedback.

Project Report A project report trains the student in documenting results and processes of a design project. For design projects, the report will typically include edited video recordings of relevant user studies, scenarios, etc. and product mock-ups or prototypes. The course sets a page limit per student for the report. The page limit does not include the front page, list of contents, references, appendices. Unless a specific page format is given, a standard page has 2400 characters. Project reports may be individual or group based.

Essay Essays train reflection and discussion of a particular theme based on references to literature, practical experiments, observations, etc. The course sets a page limit per student for the essay. The page limit does not include the front page, list of contents, references, appendices. Unless a specific page format is given, a standard page has 2400 characters.

When an exam consists of both an oral and a written part, the student is awarded one grade for the overall performance.

All re-exam requirements are the same as the ordinary exam requirements.

§ 10. Humanities Model for Learning and Teaching

The humanities model is a platform for developing and structuring activating teaching and active learning at the Faculty of Humanities. The model thus puts into practice the educational principles of the University of Southern Denmark: activating teaching and active learning. The model is based on the fact that active learning can be realised by taking part in many different types of teaching and learning activities. At the same time, it shows how teaching can have an activating effect in various ways.

Studio-based Learning

The IT Product Design programme educates through a studio-based learning ethos. The design studio is a space for seminars, project work, presentations, individual studies, design critique sessions, etc. Students inhabit the space full time at their own discretion and learn from each other. In the IT Product Design programme studio-based learning is principally characterised by four aspects which roughly correspond to the four learning spaces in the model:

Co-inquiry The faculty seeks to establish a shared sense of co-exploration, in which both students and faculty develop their understanding of a task, situation or process through a co-learning endeavour. The focus is on learning as emergent and social, where, by daring to instigate conversations that one doesn't know the outcome of, students and faculty break new ground. Typical activities include lectures, shared goal setting and expectations, research seminars, class exhibitions, reflection seminars.

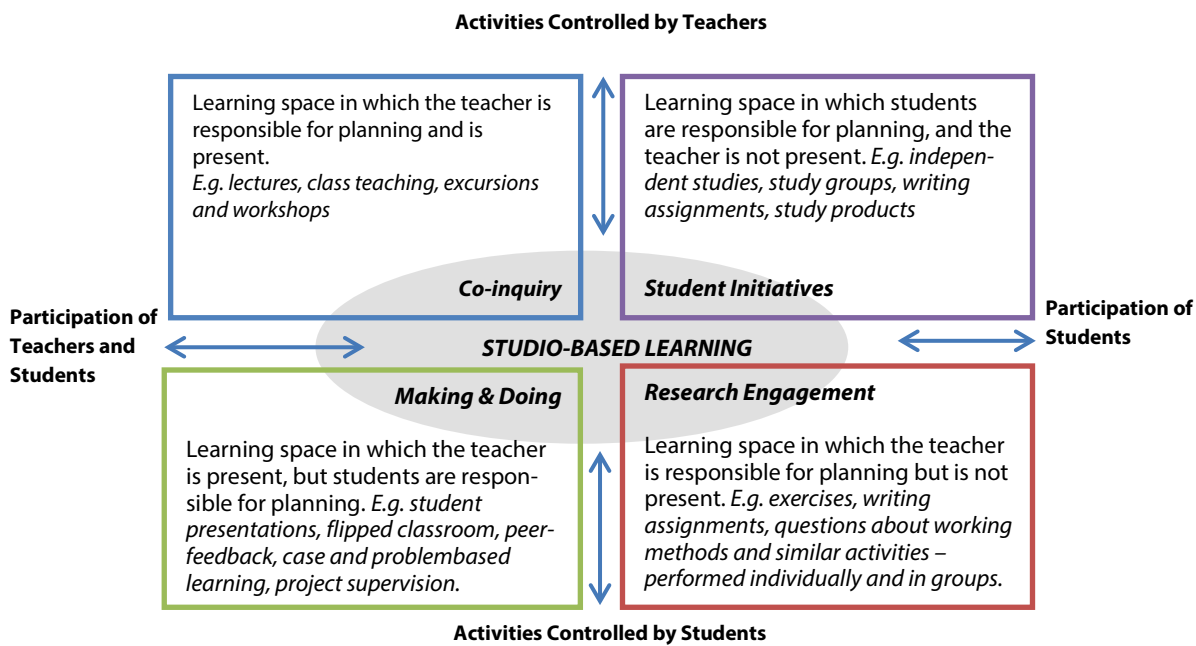
Making & Doing Students learn and use theory through practical engagement with projects and organisations, thereby connecting theory to their own experience. By using materiality to explore opportunities and concepts, students also explore the experiential nature of theory. Typical activities that support this include group design projects, field studies, stakeholder workshops, etc.

IT Product Design Curriculum

Research Engagement IT Product Design isn't only a research-based education, it also generates education-based research. Students engage themselves in research from day one. Learning activities are organised as research inquiries in which students contribute with studies, experiments and scientific argumentation. Typical activities include scientific paper discussion, research documentation, experimental research and scientific paper writing.

Student Initiatives Students are encouraged to take responsibility for organising their own learning activities and to draw upon faculty members as consultants or co-explorers. The general expectation is that students spend time in the studio and workshops outside dedicated class hours. Also, self-organised courses belong to this category.

The table below shows how these aspects of studio-based learning are emphasised in each of the courses.



IT Product Design Curriculum

	Co-inquiry	Making & Doing	Research Engagement	Student Initiatives
	Establishing a shared sense of co-exploration, in which both students and faculty develop their understanding of a task, situation or process through a co-learning endeavour	Students learn and use theory through practical engagement with projects and organisations, thereby connecting theory to their own experience	Learning is organised as research inquiries in which students contribute with studies, experiments and scientific argumentation	Students are encouraged to take responsibility for organising their own learning activities and to draw upon faculty members as consultants or co-explorers
	<i>E.g. lectures, shared goal setting and expectations, research seminars, class exhibitions, reflection seminars</i>	<i>E.g. group design projects, field studies, stakeholder workshops, etc.</i>	<i>E.g. scientific paper discussions, research documentation, experimental research and scientific paper writing</i>	<i>E.g. studio activities and workshops outside dedicated class hours, self-organised courses</i>
Courses				
1st semester: Design Research Horizons				
Exploring Design	√√	√√	√√	
Design Research 1	√		√√	
Design Skills		√√		√
Design Specialisation A		√√	√	√√
2nd semester: Prototyping and Participatory Practices				
Wearable Technologies		√√	√	
Collaborative Technologies		√√	√	
Multi-stakeholder Innovation		√	√	√
Professional Apprenticeship	√√	√	√√	√√
3rd semester: Research Organisation				
Social Design		√	√	√
Critical Reflection			√	√
Design Research 2		√	√	√√
Design Specialisation B		√√	√	√√
In-company Project (elective)		√		√
4th semester: Master Thesis				
Master Thesis	√	√√	√	√√

IT Product Design Curriculum

§ 11. List of Examinations

* The student must sign up for and pass one of these courses

Course	ECTS	Exam Type	2 nd Examiner	Grading	Duration	Article	Responsible
1st semester: Design Research Horizon							
Exploring Design	15	Individual portfolio exam	External	7-scale	40 min	15	IDK
Design Research 1	5	Individual essay	Internal	7-scale	-	16	IDK
Design Skills	5	Individual design crit with test piece	Internal	Pass/Fail	10 min	17	IDK
Design Specialisation A	5	Design crit with project materials	Internal	Pass/Fail	10/15/20 min	18	IDK
2nd semester: Prototyping and Participatory Practices							
Wearable Technologies (Profile: Embodied Design)*	10	Design crit of interactive prototype	External	7-scale	20/25/30 + 10 min	19	IDK
Collaborative Technologies (Profile: Participatory Innovation)*	10	Design crit of interactive prototype	External	7-scale	20/25/30 + 10 min	20	IDK
Multi-stakeholder Innovation	10	Project report and oral exam	Internal	7-scale	20 + 20 min	21	IDK
Professional Apprenticeship	10	Essay	Internal	Pass/Fail	-	22	IDK
3rd semester: Research Organisation							
Social Design	10	Project report and oral exam	Internal	7-scale	25 + 20 min	23	IDK
Design Research 2	10	Essay	Internal	7-scale	-	24	IDK
Critical Reflection **	5	Individual essay and oral exam	Internal	Pass/Fail	15 min	26	IDK
Design Specialisation B **	5	Design crit with project materials	Internal	Pass/Fail	10/15/20 min	27	IDK
In-company Project (replaces Social Design + Elective, 5 ECTS)	15	Individual essay and oral exam	Internal	7-scale	20 min	28	IDK
4th semester: Master Thesis							
Master Thesis	30	Thesis and oral exam	External	7-scale	60 min	29	IDK
Total ECTS:	120						

**Suggested elective courses. These may be replaced by other courses relevant to the programme

Exams are held at the end of each course. In the autumn semester re-exams are held in February. In the spring semester re-exams are held in August.

C. Specific Definitions and Examination Provisions for the Programme

§ 12. Joint Provisions

The Joint Provisions for the Faculty of Humanities, cf. Section IV of the curriculum, contain definitions of *ECTS*, *Characters*, *Standard pages*. Rules have further been set out for

- Master thesis
- Summary of bachelor project and master's thesis
- Individual and group examinations
- Internal and external examinations
- Spelling and writing skills
- Examination language
- Exemption
- Rules on termination of enrolment due to lack of study activity
- Rules on time limits for the completion of education programmes

§ 13. Language of Teaching and Examination Language

The language of teaching and examination is English.

§ 14. Internationalisation

In accordance with the project, Internationalisation of Education Programmes, as laid out in Principles for the Implementation of, and Division of Responsibilities in Sub-Projects, courses of study should be organised to provide the best possible conditions for achieving an international dimension in their teaching. This must be done either in the form of a period of study abroad or, alternatively, an Internationalisation at Home course.

This programme is international and includes activities with an international perspective. The international mobility window is placed in the 3rd semester of the IT Product Design programme to give students the option of going on a 6-month exchange in a foreign university to study course elements (including optional courses) with a total value of 30 ECTS. Students must obtain the Academic Study Board's approval of the credits offered by their selected modules/courses prior to commencing their period of study abroad. Students should start to plan, and to get advance approval for their period of study abroad about 2 semesters ahead.

II. Description of the Master's Programme Disciplines

1st Semester: *Design Research Horizon*

§ 15. Exploring Design

(a) Scope:

1st semester: 15 ECTS, 6 lessons/week

(b) Description of Objectives

Innovative design practitioners require exposure to the state-of-the-art developments in design research. This course offers short, intense researcher-driven projects at the forefront of current scientific research. The course strives to achieve the following learning objectives:

Knowledge

- Understand the fundamental concepts of interaction, design process, and user participation
- Reflect on fundamental concepts of explorative design research

Skills

- Design fundamental product interaction
- Design conversation tools that enable stakeholder participation
- Communicate basic research dilemmas and findings

Competencies

- Understand the role of reflection in the development of professional work practice and choose appropriate reflection formats for a team

(c) Content of the Academic Discipline

Through project work the students explore different perspectives of IT Product Design relating to process (methods) and relating to product (research). The contents will vary from year to year.

(d) Forms of Instruction and Work

The course consists of 4-5 mini-projects that introduce current research themes. The projects are organised in collaboration with company partners and have concrete product goals: In teams students create a method, an analysis, a conversation tool, or a product concept. The projects will introduce a variety of theories, working methods and presentation formats. Project work is supported by seminars, literature, discussions, tutoring, and design crits. The teaching will ensure alignment between objectives, instruction and assessment.

(e) Assessment Criteria

Students will be assessed on the extent to which their performance meets the objectives above as well as the general skills and objectives set out in Section 2, in particular nos. 4,5 and 11. Grades are awarded in accordance with the Grading Scale Order.

(f) Examination

During the course the student makes mini-projects that form part of the exam portfolio to be presented at the oral exam.

Examination Form:	Individual portfolio exam
Duration:	25 min. + 15 min. for grading
2nd Examiner:	External
Assessment:	7-point grading
Weighting:	15 ECTS

§ 16. Design Research 1

(a) Scope:

1st semester: 5 ECTS, 7 x 3 lessons during the semester

(b) Description of Objectives

Solid design research skills and the ability to communicate research results are crucial for both developing interactive products and new design methods. The course strives to achieve the following learning objectives:

Knowledge

- Understand central design research methods and their research traditions
- Reflect upon different methodological approaches to design

Skills

- Apply central design research methods within a specific design context
- Communicate in scientific writing

Competencies

- Organize, carry out and critically analyse a design research activity

(c) Content of the academic discipline

The student will be introduced to different design research methods and get hands-on experience in working with these in a specific context. Through writing exercises they will develop their ability to communicate research results and reflect upon their methodological approach.

(d) Forms of Instruction and Work

Lectures, exercises and discussions. The teaching will ensure alignment between objectives, instruction and assessment.

(e) Assessment Criteria

Students will be assessed on the extent to which their performance meets the objectives above as well as the general skills and objectives set out in Section 2, in particular nos. 3, 5, 6, 9 and 15. Grades are awarded in accordance with the Grading Scale Order.

(f) Examination

During the course the student writes his/her essay to be handed in at the end of the course.

Examination Form:	Individual essay
Pages:	Max 8 pages
2nd Examiner:	Internal
Assessment:	7-point grading
Weighting:	5 ECTS

§ 17. Design Skills

(a) Scope:
1st semester: 5 ECTS, 18 x 3 lessons during the semester

(b) Description of Objectives

To make cross-disciplinary collaboration work, a basic level of skills from all disciplines is necessary to bridge differences and generate mutual respect. The course strives to achieve the following learning objectives:

Skills

- Design human interactions with materials, products or systems
- Select appropriate techniques for multidisciplinary design

(c) Content of the Academic Discipline

Practical training in idea sketching, graphical IT tools for layout and illustration, video recording and editing, model making with cardboard/foam/wood/metal, programming, written communication, process facilitation, etc.

(d) Forms of Instruction and Work

18 half-day workshops with hands-on exercises training practical skills. Students with strong skills in one area will support the progress of other students in that field. Once the workshop programme is complete, the students produce a test-piece, which demonstrates the skills learned. The teaching will ensure alignment between objectives, instruction and assessment.

(e) Assessment Criteria

Students will be assessed on the extent to which their performance meets the objectives above as well as the general skills and objectives set out in Section 2, in particular no. 14. The assessment of pass/fail signifies whether students master the general and discipline-specific skills overall to a sufficient degree.

(f) Examination

At the end of the course the student participates in a design crit, at which he/she presents his/her test piece prepared during the course.

Examination Form:	Individual design crit with test piece
Duration:	10 min
2nd Examiner:	Internal
Assessment:	Pass/fail
Weighting:	5 ECTS

§ 18. Design Specialisation A

(a) Scope:
1st semester: 5 ECTS, 3 – week student-organised period

(b) Description of Objectives

The balance between collaborative and independent inquiry is an important professional ability. This course provides an opportunity for students to adapt the curriculum to individual requirements. For 1st year students this is a way of building professional relations to 2nd year students and learning from peers. The course strives to achieve the following learning objectives:

Knowledge

- Will depend on the area of specialisation

Skills

- Experiment with new design methods to expand the personal toolbox

Competencies

- Establish interdisciplinary collaboration among peers
- Work independently with developing a competence of own choice

(c) Content of the Academic Discipline

Students have the opportunity to study a theme of their own choice under supervision. The course includes three activities: (1) Planning of the course program (theme, learning goal, literature, deliverables, plan, participants, supervisor). (2) Study and project work within the selected design specialisation, e.g. vision-based design, scenario development, experience modelling, creative show or seminar.

(d) Forms of Instruction and Work

Three-week full-time activity including literature study, project work, seminars and presentations. 1st and 2nd year students participate in mixed teams. Students are encouraged to involve a member of faculty as research advisor. The teaching will ensure alignment between objectives, instruction and assessment.

(e) Assessment Criteria

Students will be assessed on the extent to which their performance meets the objectives above as well as the general skills and objectives set out in Section 2, in particular nos. 10 and 11. The assessment of pass/fail signifies whether students master the general and discipline-specific skills overall to a sufficient degree.

(f) Examination

At the end of the three-week period the students participate in a design crit, at which they present their (or if prepared individually his/her) project material prepared during the period.

Examination Form:	Design crit with project materials (1 – 5 students)
Duration:	Individual 10 min., 2 students 15 min, 3 – 5 students 20 min.
2nd Examiner:	Internal
Assessment:	Pass/fail
Weighting:	5 ECTS

2nd Semester: *Prototyping and Participatory Practices*

Depending on the student's choice of profile, he/she must sign up for either Wearable Technologies (Embodied Design Profile) or Collaborative Technologies (Participatory Innovation Profile).

§ 19. Wearable Technologies

(a) Scope: Profile Embodied Design
2nd semester: 10 ECTS, 8 lessons/week for 6 weeks

(b) Description of Objectives

The physical boundaries between humans and technology are increasingly interweaving and blurring: technology can be physically separated from the body, be a part of the body or serve as extensions of the body. The course strives to achieve the following learning objectives:

Knowledge

- Understand frameworks and theories of designing for and with the human body

Skills

- Use prototyping effectively throughout a design process to assess the capacity of the human body
- Apply appropriate design methods to support the design of interactive embodied products

Competencies

- Organise a design process with body actions and experiences at the core, e.g. theatre and design choreography

(c) Content of the Academic Discipline

This course focuses on the conception and design of interactive wearable technology prototypes that sense bodily action or processes to enrich human capabilities. Such technologies may be designed for use in fields such as welfare, communication, personal and social expression or theatre.

(d) Forms of Instruction and Work

Lectures and design studio activities. The teaching will ensure alignment between objectives, instruction and assessment.

(e) Assessment Criteria

Students will be assessed on the extent to which their performance meets the objectives above as well as the general skills and objectives set out in Section 2, in particular nos. 2, 13 and 14. Grades are awarded in accordance with the Grading Scale Order.

(f) Examination

At the end of the course the students participate in a design crit, at which they present their (or if prepared individually his/her) interactive prototype prepared during the course.

Examination Form:	Design crit of interactive prototype (1 – 5 students)
Duration:	Individual 20 min, 2 students 25 min 3-5 students 30 min; + 10 min grading
2nd Examiner:	External
Assessment:	7-point grading scale
Weighting:	10 ECTS

§ 20. Collaborative Technologies

(a) Scope: Profile Participatory Innovation
2nd semester: 10 ECTS, 8 lessons/week for 6 weeks

(b) Description of Objectives

Technologies can often create barriers to interpersonal contact, initiate and support people to work, rest and play together. The course strives to achieve the following learning objectives:

Knowledge

- Understand frameworks and theories of designing for collaboration and other multi-user experiences

Skills

- Use prototyping effectively throughout the design process to assess the potential of technology to support collaboration
- Apply appropriate design methods to support the effective design of multi-user interactive environments, artefacts or interventions

Competencies

- Design and evaluation of interactive collaborative prototypes

(c) Content of the Academic Discipline

This course focuses on designing and evaluating new responsive environments and interactive artefacts that spark, enable or critique collaboration between two or more people,

(d) Forms of Instruction and Work

Lectures and design studio activities. The teaching will ensure alignment between objectives, instruction and assessment.

(e) Assessment Criteria

Students will be assessed on the extent to which their performance meets the objectives above as well as the general skills and objectives set out in Section 2, in particular nos. 2, 13 and 14. Grades are awarded in accordance with the Grading Scale Order.

(f) Examination

At the end of the course the students participate in a design crit, at which they present their (or if prepared individually his/her) interactive prototype prepared during the course.

Examination Form:	Design crit of interactive prototype (1 – 5 students)
Duration:	Individual 20 min, 2 students 25 min 3-5 students 30 min; + 10 min grading
2nd Examiner:	External
Assessment:	7-point grading scale
Weighting:	10 ECTS

§ 21. Multi-stakeholder Innovation

(a) Scope:
2nd semester: 10 ECTS, 6 lessons/week for 6 weeks

(b) Description of Objectives

Multi-stakeholder innovation requires attention to and critical reflections upon the various assumptions about organisations, users, knowledge and change involved in innovation practices. The course strives to achieve the following learning objectives:

Knowledge

- Understand theories of user involvement in innovation and stakeholder engagement
- Familiarity with anthropological frameworks and concepts for understanding situated perspectives and practices of users and organisations and gain insight into organisational change dynamics
- Reflect on the role of provocation and reframing in design

Skills

- Facilitate conversations about innovation among employees, users and other stakeholders
- Choose and apply appropriate methods for user studies, making sense and co-creation

Competencies

- Involve conceptual perspectives about social and organisational practices
- Organise innovation projects with user and stakeholder participation
- Reflect on own role in the interaction between actors

(c) Content of the Academic Discipline

Theories of the understanding and involvement of organisations, users and other stakeholders in innovation. Ethnographic field studies in complex contexts. Engagement of stakeholders in innovation activities through conversation starters and provotypes.

(d) Forms of Instruction and Work

Lectures, class discussions, field activities, etc. The teaching will ensure alignment between objectives, instruction and assessment.

(e) Assessment Criteria

Students will be assessed on the extent to which their performance meets the objectives above, as well as the general skills and objectives set out in Section 2, in particular nos. 8, 12 and 15. Grades are awarded in accordance with the Grading Scale Order.

(f) Examination

During the course the students write a group project report to be handed in 14 days before the date of the oral exam.

Examination Form:	Group project report (3 – 5 students) + oral exam
Pages:	Max 30 pages
Duration:	Group 20 min + individual 20 min
2nd Examiner:	Internal
Assessment:	7-point grading scale
Weighting:	10 ECTS

§ 22. Professional Apprenticeship

(a) Scope:
2nd semester: 10 ECTS, 3 lessons/week

(b) Description of Objectives

The course gives students an opportunity to immerse in a research area of interest to them. In close collaboration with researchers the students engage in work that helps them become aware of their professional identity. The course strives to achieve the following learning objectives:

Knowledge

- Understand theories on state-of-the-art level within the specific research area

Skills

- Select and apply research methods within the respective field of interest
- Reflect scientifically upon own work practices
- Communicate research findings through academic writing

Competencies

- Develop critical reflective practice and independently develop own future professional identity in either academia or an organisational context

(c) Content of the Academic Discipline

Each year the faculty members post descriptions of the research theme they each want to pursue. Students write a motivated application to get accepted for a professional apprenticeship.

(d) Forms of Instruction and Work

Seminars, reading circles, field studies and studio activities depending on the apprenticeship. The teaching will ensure alignment between objectives, instruction and assessment.

(e) Assessment Criteria

Students will be assessed on the extent to which their performance meets the objectives above, as well as the general skills and objectives set out in Section 2, in particular nos. 1, 2, 7, 9 and 10. The assessment of pass/fail signifies whether students master the general and discipline-specific skills overall to a sufficient degree.

(f) Examination

During the course the students write the essay to be handed in for the exam.

Examination Form:	Essay (1 – 4 students)
Pages:	1 student max 12 pages, 2 students max 20 pages, 3-4 students max 30 pages
2nd Examiner:	Internal
Assessment:	Pass/fail
Weighting:	10 ECTS

3rd Semester: Research Organisation

§ 23. Social Design

(a) Scope:

3rd semester: 10 ECTS, 4 lessons/week

(b) Description of Objectives

Social Design is concerned with improving human well-being and livelihood through the use of design insight. The course strives to achieve the following learning objectives:

Knowledge

- Understand theories of public organisational change and the political nature of multi-stakeholder interaction
- Reflect on fundamental concepts of societal interventions

Skills

- Initiate and facilitate conversations between diverse stakeholders within social innovation
- Choose and apply methods for engaging relevant stakeholders on the basis of user insight within a particular field of action

Competencies

- Make design decisions that reflect social responsibility

(c) Content of the Academic Discipline

Key stakeholders for this course sit within the public sector, and the student will learn to navigate the political area of negotiation between different interests. The course will be built around themes found to be relevant for citizen groups, including patients, social clients, concerned family members and loved ones and others that will be identified during the research. In this integrated approach to innovation, themes may be highly complex. Also the roles of design and designers call for reflection on the added value and appropriateness of the contribution.

(d) Forms of Instruction and Work

Lectures will introduce the students to theories and methods of Social Design. A larger innovation project in collaboration with a company or organisation will provide hands-on experience with innovation methods and cross-disciplinary teamwork. The project is documented in a report and presented orally. The students complete the course by creating a methods portfolio where they discuss experiences from the project work in relation to literature.

(e) Assessment Criteria

Students will be assessed on the extent to which their performance meets the objectives above, as well as the general skills objectives set out in Section 2, in particular nos. 8, 12, 13 and 15. Grades are awarded in accordance with the Grading Scale Order.

(f) Examination

During the course the students write a group project report to be handed in 14 days before the date of the oral exam.

Examination Form:	Group project report (3 – 5 students) + oral exam
Pages:	Max 30 pages
Duration:	Group 25 min + individual 20 min
2nd Examiner:	Internal
Assessment:	7-point grading scale
Weighting:	10 ECTS

§ 24. Design Research 2

(a) Scope:

3rd semester: 10 ECTS, 4 lessons every other week (6 weeks)

(b) Description of Objectives

In continuation of Design Research 1, this course develops the student's theoretical and practical understanding of qualitative research approaches to design. The course strives to achieve the following learning objectives:

Knowledge

- Understand the theoretical and methodological bases of research-oriented design
- Analyse and critically reflect upon the use of qualitative data in research-oriented design

Skills

- Develop and deploy collaborative activities in a design context
- Communicate in advanced scientific writing

Competencies

- Organise and carry out a knowledge-generating design project in a specific context

(c) Content of the Academic Discipline

Design research paradigms, data collection and analysis methods, validity and scientific argumentation. As a result of this research, students can clearly define and delimit their thesis project.

(d) Forms of Instruction and Work

The course consists of a theoretical part, a project part and a writing part. It will be based on lectures, seminars with student presentations and discussions as well as essay writing. As part of the course the student will carry out an individual research project including literature research, qualitative design research, and concept development. The teaching will ensure alignment between objectives, instruction and assessment.

(e) Assessment Criteria

Students will be assessed on the extent to which their performance meets the objectives above, as well as the general skills objectives set out in Section 2, in particular nos. 1-7, 9, 13 and 16. Grades are awarded in accordance with the Grading Scale Order.

(f) Examination

During the course the student writes his/her essay to be handed in for the exam.

Examination Form:	Individual essay
Pages:	Max 12 pages
2nd Examiner:	Internal
Assessment:	7-point grading scale
Weighting:	10 ECTS

§ 25. Electives

(a) Scope:

3rd semester: 10 ECTS

The student must pass 10 ECTS electives.

In principle, electives may be taken at any higher educational organisation in Denmark or abroad as long as the content is applicable to IT Product Design. If students wish to take an elective at another organisation or under another academic study board in the University of Southern Denmark, students must consult the Academic Study Board for Information and Communication Studies to ensure that the elective can be approved.

Every year the Academic Study Board for Information and Communication Studies announces electives to choose from.

This curriculum includes two suggested electives, viz. Critical Reflection and Design Specialisation B, see below.

§ 26. Suggested elective: Critical Reflection

(a) Scope:
3rd semester: 5 ECTS, 3 lessons every other week (6 weeks)

(b) Description of Objectives

Critical reflection is widely acknowledged as essential to professional development and practice, and it is therefore an important part of professional education. The course strives to achieve the following learning objectives:

Knowledge

- Understand theoretical backgrounds informing the development of professional roles
- Understand interpretive frameworks for examining professional knowledge

Skills

- Observe and analyse work practice in an (industrial) organisation
- Communicate in advanced scientific writing

(c) Content of the Academic Discipline

Based on a summer internship or other organisational activity, students are challenged to critically reflect on their experience and knowledge traditions. A variety of interpretive frameworks are offered to examine personal, interpersonal, contextual issues related to forms and domains of professional knowledge.

(d) Forms of Instruction and Work

Individual assignments and group seminars to support interpretation, analysis, writing, presentation of empirical materials and theoretical resources. The teaching will ensure alignment between objectives, instruction and assessment.

(e) Assessment Criteria

Students will be assessed on the extent to which their performance meets the objectives above, as well as the general skills objectives set out in Section 2, in particular nos. 3, 5, 7, 10, 11 and 16. The assessment of pass/fail signifies whether students master the general and discipline-specific skills overall to a sufficient degree.

(f) Examination

During the course the student writes his/her essay to be handed in 14 days before the date of the oral exam.

Examination Form:	Individual essay + oral exam
Pages:	Max 8 pages
Duration:	15 min
2nd Examiner:	Internal
Assessment:	Pass/fail
Weighting:	5 ECTS

§ 27. Suggested elective: Design Specialisation B

(a) Scope:
3rd semester: 5 ECTS, 3-week student-organised period

(b) Description of Objectives

The balance between collaborative and independent inquiry is an important professional ability. This course provides an opportunity for students to adapt the curriculum to individual requirements. For 2nd year students this is an opportunity to develop an area of specialism related to thesis investigations, and possibly involve first-year students in the effort. The course strives to achieve the following learning objectives:

Knowledge

- Will depend on the area of specialisation.

Skills

- Design human interactions with materials, products or systems
- Experiment with new design methods to expand the personal toolbox

Competencies

- Establish interdisciplinary collaboration among peers
- Set learning goals and organise activities that support the development of personal competencies

(c) Content of the Academic Discipline

Students have the opportunity to study a theme of their own choice under supervision. The course includes three activities: (1) Planning of the course program (theme, learning goal, literature, deliverables, plan, participants, and supervisor). (2) Study and project work within the selected design specialisation, e.g. vision-based design, scenario development, experience modelling, creative methods. (3) Organising a presentation in the form of a design show or seminar.

(d) Forms of Instruction and Work

Three-week, full-time activity including literature study, project work, seminars and presentations. 1st and 2nd year students participate in mixed teams. Students are encouraged to involve a member of faculty as research advisor. The teaching will ensure alignment between objectives, instruction and assessment.

(e) Assessment Criteria

Students will be assessed on the extent to which their performance meets the objectives above, as well as the general skills objectives set out in Section 2, in particular nos. 2, 8 and 10-13. The assessment of pass/fail signifies whether students master the general and discipline-specific skills overall to a sufficient degree.

(f) Examination

At the end of the three-week period the students participate in a design crit, at which they present their (or if prepared individually his/her) project materials prepared during the period.

Examination Form:	Design crit based on project materials (1 – 5 students)
Duration:	Individual 10 min, 2 students 15 min, 3-5 student 20 min
2nd Examiner:	Internal
Assessment:	Pass/fail
Weighting:	5 ECTS

§ 28. In-company Project (elective)

(a) Scope:

3rd semester: 15 ECTS, 2-3 days full-time/week work load: 340 hours

This project replaces Social Design and a 5 ECTS elective for example Design Specialisation B.

(b) Description of Objectives

The in-company period allows the student to experience methods, processes and design practices within an organisational context. The course strives to achieve the following learning objectives:

Knowledge

- Understand the fundamentals of organisational, financial, social and work-related issues of the company
- Reflect on the scientific issues that have arisen during the project work at the company

Skills

- Design interaction on a professional level
- Facilitate collaboration with employees across different occupational, educational and knowledge backgrounds
- Analyse and assess, on a scientific basis, the company's choice of method to solve problems encountered

Competencies

Reflect critically on own development in terms of IT Product Design practice

(c) Content of the Academic Discipline

It is the responsibility of the student to arrange the in-company project with a private or public organisation. The organisation needs to offer the student active participation in project(s) with tasks relevant to the IT Product Design programme. The student must have a work-desk available on the company premises, and the company must be able to

offer the student a supervisor (on master's degree level) for the entire period.

The company and the student will enter into an agreement, which will be approved by the programme responsible. The agreement must include a description of the project(s) and tasks, which the students must undertake during the in-company period, drawn up by the student in cooperation with the academic supervisor and the company.

(d) Forms of Instruction and Work

During the in-company period the student will work on tasks and projects relevant to the IT Product Design programme. The in-company period is as a rule an individual study activity.

(e) Assessment Criteria

Students will be assessed on the extent to which their performance meets the objectives above, as well as the general skills objectives set out in Section 2, in particular nos. 2, 3, 8 and 11-13. Grades are awarded in accordance with the Grading Scale Order.

(f) Examination

1 month after the completion of the in-company period the student hands in his/her essay and a time is set for the oral exam.

Examination Form:	Individual essay + oral exam
Pages:	Max 20 pages
Duration:	20 min
2nd Examiner:	Internal
Assessment:	7-point grading scale
Weighting:	15 ECTS

4th Semester: Master Thesis

§ 29. Master Thesis

(a) Scope:
3rd semester: 0 ECTS
4th semester: 30 ECTS

(b) Description of Objectives

In the work with the thesis the student establishes and completes an extensive research project and reflects the work in scientific writing.

The thesis must – in a suitable balance - document the student’s ability to (1) design IT products, (2) create new knowledge through design research and (3) influence the work practices and attitudes in a design organisation.

The contents and quality of the thesis must approach professional state-of-the-art level on design, research, or organisational development depending upon the chosen focus.

Knowledge

- Have a thorough knowledge of theories and methods within the fields of Interaction Design, Design Anthropology or Participatory Innovation
- Contribute to new knowledge within the fields of Interaction Design, Design Anthropology or Participatory Innovation

Skills

- Master the scientific methods of designing user interaction for product interfaces and services. *Or:* Facilitate collaboration between people with different stakes in an organisation (*depending on the theme of the thesis*)
- Access and select from among the scientific theories, methods, tools and general skills of IT Product Design
- Communicate research-based knowledge and discuss professional and scientific issues with both academic peers and non-specialists
- Argue scientifically for design research findings grounded in state-of-the-art literature and empirical data

Competences

- Organise development situations that are complex, unpredictable and require new solutions and pilot them in an organisation
- Independently establish collaboration between professional disciplines within design teams and with stakeholders outside the development organisation - users in particular

(c) Content of the Academic Discipline

The thesis is a major written assignment that enables students to independently write about a subject in the field of IT Product Design in depth and in this way to document their ability to apply scientific methodology.

The students decide in dialog with the supervisor on the theme for their thesis. A supervisor is appointed as personal advisor for each student. The thesis must – in a suitable balance - document the student’s ability to (1) design IT products, (2) create new knowledge through design research and (3) influence the work practices and attitudes in a design organisation.

The contents and quality of the thesis must approach professional state-of-the-art level on design, research, or organisational development, depending upon the chosen focus

(d) Forms of Instruction and Work

The thesis is initiated on the basis of a thesis contract which describes the focus, relevance, method and scope. The thesis theme must be approved by the Head of Studies. Thesis work is individual or completed in pairs of two students. During the work with the thesis the students will do peer reviews. The teaching will ensure alignment between objectives, instruction and assessment.

(e) Assessment Criteria

Students will be assessed on the extent to which their performance meets the objectives above, as well as all the general skills objectives set out in Section 2. Grades are awarded in accordance with the Grading Scale Order.

(f) Examination

Examination Form:	Master Thesis (1-2 students) + Oral exam
Pages:	1 student: 60 – 80 pages 2 students: 60 – 80 pages + 50% + max 3-page summary
Duration:	60 min per student
2nd Examiner:	External
Assessment:	7-point grading scale
Weighting:	30 ECTS

III. Coming into Force and Transitional Provisions

§ 30. Applicability

This curriculum was drawn up in accordance with Ministerial Order no. 1328 of 15 November 2016 on Bachelor and Master's Programmes at Universities and comes into effect for students matriculated on 1 September 2017 or later.

§ 31. Validity

Recommended for approval by the Academic Study Board for Information and Communication Studies 7 June 2017.

Approved by the Dean's office of the Faculty of Humanities 11 July 2017.

§ 32. Transitional provisions

Students who began their study programme on 1 September 2016 must follow the courses starting from 3rd semester as indicated below:

- Phenomenology and Pragmatics is replaced by another course
- Interaction Research: The weighting is changed from 5 ECTS to 10 ECTS
- Social Design: 2nd examiner is changed from external to internal
- Critical Reflection: 2nd examiner is changed from external to internal
- In-company Project: 2nd examiner is changed from external to internal

§ 33. Later amendments to the curriculum

IV. Joint Provisions for Humanities Programmes at the University of Southern Denmark

Can be found on the Faculty Secretariat website under:

www.sdu.dk/hum/faellesbestemmelser

On Exemption from the Rules in the Curriculum

In exceptional circumstances, the university can grant exemption from those regulations in the curriculum that are solely established by the university (cf. the ministerial order on bachelor and master programmes at universities).

Appendix 1: General Objectives Matrix

General objectives	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1st semester: Design Research Horizon																
Exploring Design				√	√						√					
Design Research 1			√		√	√			√						√	
Design Skills														√		
Design Specialisation A										√	√					
2nd semester: Prototyping and Participatory Practices																
Wearable Technologies		√											√	√		
Collaborative Technologies		√											√	√		
Multi-stakeholder Innovation								√				√			√	
Professional Apprenticeship	√	√					√		√							√
3rd semester: Research Organisation																
Social Design								√				√	√		√	
Design Research 2	√	√	√	√	√	√	√		√							√
Critical Reflection			√		√		√			√	√					√
Design Specialisation B		√						√		√	√	√	√			
In-company Project		√	√					√			√	√	√			
4th semester: Master Thesis																
Master Thesis	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√

General objectives

Masters must be able to:

F R A M E

- 1) Delineate and define a problem at a high scientific level
- 2) Investigate, analyse and solve problems with the help of relevant academic theories and methods as well as incorporate current international research
- 3) Systematise complex knowledge and data as well as critically identify and prioritise aspects that are significant to the topic

A R G U E

- 4) Critically master the various theories and methods of the field
- 5) Employ terminology in a precise and consistent manner
- 6) Argue at a scientific level
- 7) Initiate and carry through an academic dialogue

F O C U S

- 8) Focus and create coherence in their work
- 9) Address sources critically and document these using references, notes and bibliographies

C O M M U N I C A T E

- 10) Use discipline-oriented language – written and/or spoken – accurately and correctly
- 11) Communicate research-based knowledge and discuss complex scientific issues so that they become relevant and understandable to different target groups

O R G A N I S E

- 12) Manage work and developmental situations that are complex and require new approaches, and collaborate with others, including the ability to receive and give constructive criticism
- 13) Work independently, in a disciplined, structured and goal-oriented way, including the ability to meet deadlines and adhere to formal requirements
- 14) Use IT as a tool in connection with data analysis, information retrieval, and verbal and written communication

FORMULATE

- 15) Understand and apply academic texts in English and in other languages
- 16) Formulate academic English

Appendix 2: Qualification Matrix

Qualification Framework for Danish Higher Education	Knowledge		Skills				Competence		
Discipline specific objectives	A. Understand theories of IT product design	B. Reflect scientifically	C. Design user interaction	D. Facilitate stakeholder collaboration	E. Select appropriate methods	F. Communicate research-based knowledge	G. Organise development	H. Establish interdisciplinary collaboration	I. Develop own professional specialisation
Exploring Design (15 ECTS)	<i>Understand the fundamental concepts of interaction, design proces, and user participation</i>	<i>Reflect on fundamental concepts of explorative design research</i>	<i>Design fundamental product interaction</i>	<i>Design conversation tools that enable stakeholder participation</i>		<i>Communicate basic research dilemmas and findings</i>			
Design Skills (5 ECTS)			<i>Design human interactions with materials, products or systems</i>		<i>Select appropriate techniques for multidisciplinary design work by drawing on an essential set of design skills</i>				
Design Research 1 (5 ECTS)	<i>Understand central design research methods and their research traditions</i>	<i>Reflect upon different methodological approaches to design</i>			<i>Apply central design research methods within a specific design context</i>	<i>Communicate in scientific writing</i>	<i>Organize, carry out and critically analyse a design research activity</i>		

IT Product Design Curriculum

Design Specialisation A (5 ECTS)	<i>(Depending on the area of specialisation)</i>				<i>Experiment with new design methods to expand the personal toolbox</i>			<i>Establish interdisciplinary collaboration among peers</i>	<i>Work independently with developing a competence of own choice</i>
Wearable Technologies (10 ECTS)	<i>Understand frameworks and theories of designing for and with the human body</i>		<i>Use prototyping effectively throughout a design process to assess the capacity of the human body</i>		<i>Apply appropriate design methods to support the design of interactive embodied products</i>		<i>Organise a design process with body actions and experiences at the core, e.g. theatre and design choreography</i>		
Collaborative Technologies (10 ECTS)	<i>Understand frameworks, theories of designing for collaboration and other multi-user experiences</i>		<i>Use prototyping effectively throughout the design process to assess the potential of technology to support collaboration</i>		<i>Apply appropriate design methods to support effective design of multi-user interactive environments, artefacts or interventions</i>			<i>Design and evaluation of interactive collaborative prototypes</i>	
Multi-stakeholder Innovation (10 ECTS)	<i>Understand theories of user involvement in innovation, stakeholder engagement and organisational change dynamics</i>	<i>Reflect on the role of provocation and reframing in design</i>		<i>Facilitate conversations about innovation among employees, users and other stakeholders</i>	<i>Choose and apply appropriate methods for user studies, making sense and co-creation</i>		<i>Involve conceptual perspectives about social and organisational practices</i>	<i>Organise innovation projects with user and stakeholder participation</i>	<i>Reflect on own role in the interaction between actors</i>
Professional Apprenticeship (10 ECTS)	<i>Understand theories on state-of-the-art level within the specific research area</i>	<i>Reflect scientifically upon own work practices</i>	<i>(depends on project)</i>	<i>(depends on project)</i>	<i>Select and apply research methods within the respective field of interest</i>	<i>Communicate research findings through academic writing</i>	<i>(depends on project)</i>	<i>(depends on project)</i>	<i>Develop critical reflective practice and independently develop own future professional identity</i>

IT Product Design Curriculum

Social Design (10 ECTS)	<i>Understand theories of public organisational change and the political nature of multi-stakeholder interaction</i>	<i>Reflect on fundamental concepts of societal interventions</i>		<i>Initiate and facilitate conversations between diverse stakeholders within social innovation</i>	<i>Choose and apply methods for engaging relevant stakeholders on the basis of user insights within a particular field of action</i>				<i>Make design decisions that reflect social responsibility</i>
Critical Reflection (5 ECTS)	<i>Understand theoretical backgrounds informing the development of professional roles</i>	<i>Understand interpretive frameworks for examining professional knowledge</i>			<i>Observe and analyse work practices in an (industrial) organisation</i>	<i>Communicate in advanced scientific writing</i>			<i>Master a set of learning goals to improve design practices through the assessment of methods</i>
Design Research 2 (10 ECTS)	<i>Understand the theoretical and methodological bases of research-oriented design</i>	<i>Analyse and critically reflect upon the use of qualitative data in research-oriented design</i>		<i>Develop and deploy collaborative activities in a design context</i>		<i>Communicate in advanced scientific writing</i>	<i>Organise and carry out a knowledge-generating design project in a specific context</i>		
Design Specialisation B (5 ECTS)	<i>(depending on the area of specialisation)</i>		<i>Design human interactions with materials products or systems</i>		<i>Experiment with new design methods to expand the personal toolbox</i>			<i>Establish interdisciplinary collaboration among peers</i>	<i>Set learning goals and organise activities that support the development of personal competencies</i>
Master Thesis (30 ECTS)	<i>Contribute to new knowledge within the fields of Interaction Design, Design Anthropology or Participatory Innovation.</i>	<i>Argue scientifically for design research findings grounded in state-of-the-art literature and empirical data.</i>	<i>Master the scientific methods of designing user interaction for product interfaces and services, OR...</i>	<i>...Facilitate collaboration between people with different stakes in an organisation</i>	<i>Access and select from among the scientific theories, methods, tools and general skills of IT Product Design</i>	<i>Communicate research-based knowledge and discuss professional and scientific issues with both academic peers and non-specialists</i>	<i>Organise development situations that are complex, unpredictable and require new solutions and pilot them in an organisation</i>	<i>Independently establish collaboration between professional disciplines within design teams and with stakeholders outside the development organisation</i>	

