MASTER’S DEGREE PROGRAM
IT PRODUCT DEVELOPMENT
MASTER’S DEGREE PROGRAM

1. Admission
2. Structure of the Master’s Degree Program
   I. Box diagram
   II. Specializations
   III. Elective courses
3. Study abroad
4. Admission
5. External Collaboration
6. Practical information

Link to current slides: www.cs.au.dk/study
ADMISSION
ADMISSION

• When bachelor completed
• You apply for admission into Master’s Program
  • Deadline 1 March
• ... or apply for admission into PhD studies
• Admission
  • You must actively apply for admission
  • You must actively apply for SU
  • Making a study program (contract) does not suffice
• https://kandidat.au.dk/optagelse/ansoegning/
TEMPORARY ADMISSION

• If you lack less than 30 ECTS in your bachelor, you may for a 6 months period take up to 30 ECTS courses to be part of your future Master’s Program
• You cannot get temporary admission if you still lack a mandatory course and you have failed it twice.
• Never delay (re)examination in a mandatory course.
• If you get temporary admission, it might have SU-related consequences. Remember to clarify the consequences before applying.
PHD STUDIES?

Apply for PhD studies!

• [https://phd.nat.au.dk/programmes/computer-science/](https://phd.nat.au.dk/programmes/computer-science/)
• You receive a salary while studying!
• Apply for PhD studies directly following your Bachelor’s degree, during your Master’s studies or following your Master’s degree.
• For deadlines see [https://phd.nat.au.dk/for-applicants/](https://phd.nat.au.dk/for-applicants/)
• Contact Anders Møller for info [http://pure.au.dk/portal/en/amoeller@cs.au.dk](http://pure.au.dk/portal/en/amoeller@cs.au.dk)
STRUCTURE
# IT PRODUCT DEVELOPMENT MASTER’S

## Program Overview

<table>
<thead>
<tr>
<th>Semester</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st sem (Fall)</td>
<td>Elective (10 ECTS) UBI 1 (10 ECTS) Design 1 (10 ECTS)</td>
</tr>
<tr>
<td>2nd Sem (Spring)</td>
<td>UBI 2a (5 ECTS) Design 2a (5 ECTS) Innovation Project (20 ECTS)</td>
</tr>
<tr>
<td>3rd Sem (Fall)</td>
<td>Study abroad / elective courses (30 ECTS)</td>
</tr>
<tr>
<td>4th Sem (Spring)</td>
<td>Thesis (30 ECTS)</td>
</tr>
</tbody>
</table>

- Program must include all courses
- Program must include at least one of HCI 1, HCI 3, UBI 3

### Socio-Technical Design
- Design 1
- Design 2a

### HCI
- HCI 1
- HCI 2
- HCI 3

### Ubiquitous Computing and Interaction
- UBI 1
- UBI 2a
- UBI 2b
- UBI 3

**Shared with CS**
SPECIALIZATIONS
# HUMAN-COMPUTER INTERACTION

<table>
<thead>
<tr>
<th>1st Sem (Fall)</th>
<th>Interactivity and Computer Mediation – Concepts, Theories, Methods, Cases (10 ECTS)</th>
<th>OB</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd Sem (Spring)</td>
<td>Designing Interactive Technologies (10 ECTS)</td>
<td>NE</td>
</tr>
<tr>
<td>3rd Sem (Fall)</td>
<td>Multimodal Interaction (10 ECTS) OR Engineering Interactive Technologies (10 ECTS)</td>
<td>EH MW</td>
</tr>
</tbody>
</table>

- Semesters are independent – can be taken in any order

**Collaboration and Computer-Human Interaction**
- Clemens Nylandsted Klokmose
- Eve Hoggan
- Michael Wessely
- Olav Bertelsen
- Susanne Bødker

**Ubiquitous Computing and Interaction**
- Hans-Jörg Schultz
- Niklas Elmqvist
- Kaj Grønbæk
- Ken Pfeuffer
- Marianne Graves Petersen
- Niels Olof Bouvin
SOCIO-TECHNICAL DESIGN

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>ECTS</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st sem (Fall)</td>
<td>Social and Aesthetic Interaction Design</td>
<td>10</td>
<td>PGK</td>
</tr>
<tr>
<td>2nd Sem (Spring)</td>
<td>Designing Wearables</td>
<td>5</td>
<td>MP</td>
</tr>
</tbody>
</table>

- Semesters are independent – can be taken in any order

**Socio-Technical Design**
- Majken Kirkegård Rasmussen
- Minna Pakanen
- Peter Gall Krogh
UBIQITOUS COMPUTING AND INTERACTION

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Description</th>
<th>Tutor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st sem (Fall)</td>
<td><strong>Building the Internet of Things with P2P and Cloud Computing (10 ECTS)</strong></td>
<td>NOB</td>
</tr>
<tr>
<td>2nd Sem (Spring)</td>
<td><strong>Augmented Reality (5 ECTS)</strong></td>
<td>KP</td>
</tr>
<tr>
<td></td>
<td><strong>Advanced Augmented Reality Project (5 ECTS)</strong></td>
<td>KP</td>
</tr>
<tr>
<td>3rd Sem (Fall)</td>
<td><strong>Data Visualization (10 ECTS) OR</strong></td>
<td>H-JS</td>
</tr>
<tr>
<td></td>
<td><strong>Deep Learning for Visual Recognition (10 ECTS)</strong></td>
<td></td>
</tr>
</tbody>
</table>

• Semesters are independent – can be taken in any order

Collaboration and Computer-Human Interaction
- Clemens Nylandsted Klokmose
- Eve Hoggan
- Michael Wessely
- Olav Bertelsen
- Susanne Bødker

Ubiquitous Computing and Interaction
- Hans-Jörg Schultz
- Niklas Elmqvist
- Kaj Grønbæk
- Ken Pfeuffer
- Marianne Graves Petersen
- Niels Olof Bouvin

AARHUS UNIVERSITY
DEPARTMENT OF COMPUTER SCIENCE
IT PRODUCT DEVELOPMENT MASTER'S
4 APRIL 2024
If you don't have the prerequisite courses or similar background in your bachelor, you can take a bachelor course as part of your MSc program.

<table>
<thead>
<tr>
<th>Specialization</th>
<th>Prerequisite (bachelor course)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human-Computer Interaction</td>
<td>Human-Computer Interaction</td>
</tr>
<tr>
<td>Socio-Technical Design</td>
<td>Physical Computing</td>
</tr>
<tr>
<td>Ubiquitous Computing and Interaction</td>
<td>Distributed Systems and Security</td>
</tr>
</tbody>
</table>
ELECTIVE COURSES
ELECTIVE COURSES – IT-PRODUCT DEVELOPMENT

Department of Computer Science - apart from specializations

- Bachelor level courses
- Summer university courses
- Project Work in IT Product Development (5 or 10 ECTS)
- Vocational Training Project at the Department of Computer Science (10 ECTS)

Arts

- Data and Digital Culture (10 ECTS)
- Design som kritisk praksis (10 ECTS)

Tech

- Embedded Real Time Systems (10 ECTS)

Note that courses from Arts require skill academic writing and text analysis in the tradition of humanities.

If you fail an exam in an elective course, then that course has become mandatory! If you have made an erroneous choice of an elective course please contact us for guidance immediately!
STUDY ABROAD
## IT PRODUCT DEVELOPMENT & STUDY ABROAD

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Sem (Fall)</td>
<td>Elective (10 ECTS)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>UBI 1 (10 ECTS)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Design 1 (10 ECTS)</td>
<td></td>
</tr>
<tr>
<td>2nd Sem (Spring)</td>
<td>UBI 2a (5 ECTS)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Design 2a (5 ECTS)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Innovation Project (20 ECTS)</strong></td>
<td></td>
</tr>
<tr>
<td>3rd Sem (Fall)</td>
<td>Study abroad (30 ECTS)</td>
<td></td>
</tr>
<tr>
<td>4th Sem (Spring)</td>
<td><strong>Thesis (30 ECTS)</strong></td>
<td></td>
</tr>
</tbody>
</table>

### MSc program with study abroad semester

- If your elective course in the 1st semester is from the HCI or UBI specializations, then there is no requirements on your study abroad courses.
- Otherwise, you have to take an HCI or UBI course when abroad. It need not be a course that is identical to an AU course. It suffices with a course within the area of HCI or UBI.
- Additional information - [www.cs.au.dk/study](http://www.cs.au.dk/study)
EXTERNAL COLLABORATION AND STUDENT ENTREPRENEURSHIP
EXTERNAL COLLABORATION

Types of collaboration

• Vocational Training Project
• Bachelor’s project
• Master’s Thesis
• In connection with a specific course

General information regarding collaboration and external partners

• Find a company and a main supervisor from AU who will be part of the project
• Check whether you need additional contracts (Fast Track), NDA’s or copyright
• Create a contract for Vocational Training Project via project generator

Further information: https://studerende.au.dk/en/studies/subject-portals/computer-science/project-collaboration
Student Entrepreneurship at CS

HatchIT Lab
- Local student entrepreneurship hub at CS
- Office Space and access to facilities at CS Dept.
- Networking with other CS student startups
- HatchITlab.au.dk

The Kitchen AU
- Central AU Entrepreneurship hub
- Funding support
- Business developers and advisors/mentors
- Workshops and events for entrepreneurs
- Thekitchen.io
HatchIT Lab
Student Entrepreneurship at CS

50+
Student Entrepreneurs

10+ mio dkk
Investment and external funding

50+
Jobs created
PRACTICAL INFORMATION
CONTRACTS

Study Contract

- Complete the contract before signing up for the first course(s)
  - Also in case of temporary admission
  - You may only sign up for courses mentioned in your contract
- Revise at semiannual interviews in April and October
  - You will receive an email invitation
  - You will have a friendly chat with Andreas and Søren

Project Work Contract

- In addition to signing up for a project work / vocational training project (erhvervsprojekt) you must also make a contract

Thesis Contract

- Fill out at start of thesis work

All contracts are created through: http://kontrakt.nattech.au.dk/

Steps:
1. Decide on course for the coming semester
2. Submit a master contract and have it approved
3. Register for course before the deadline
SIGNING UP FOR COURSES

Sign up

- May 1-5 for courses in the Fall
- November 1-5 for courses in the Spring
- Advance approval of credit transfer is needed for courses from outside Nat-Tech,
  - Apply well in advance!
  - Advance approval of credit transfer is no guarantee that you will be admitted to the course!

Schedule for elective courses

- Watch out for collisions
- You may find the schedule for courses offered by the Department of Computer Science at https://timetable.au.dk/
ADVICE

• If you follow the recommended program of study (30 ECTS per semester), take courses in the correct order (the Box Diagrams) and pass all courses at the ordinary exam or at the first scheduled re-exam then you need not worry about the study progress reform.

• If you fall behind or do not pass a course at the latest by the first reexamination, then contact ua@cs.au.dk or the student counselor for advice and guidance on your individual study program as soon as possible. The earlier you reach out the better.

• You have a max study time, if you do not complete your master’s program within six months after the prescribed time you are automatically signed out of the study program / out of the university https://studerende.au.dk/en/studies/subject-portals/computer-science/rules-and-guidelines/maximum-duration-of-study.

• If you fail an exam in an elective course, then that course has become mandatory. If you have made an erroneous choice of an elective course, please contact ua@cs.au.dk or the student counselor for guidance immediately!
STUDENT COUNSELOR

Maja Skovgård Nielsen

• www.cs.au.dk/vejleder
• Studievejledning4.nat-tech@au.dk

Possible topics

• Change of study program, delay, leave of absence, withdrawal.
• Illness.
• Study regulations
• Selecting supplementary subjects.