

BACHELOR DEGREE IN IT PRODUCT DEVELOPMENT



AARHUS
UNIVERSITY
DEPARTMENT OF COMPUTER SCIENCE

BACHELOR - IT PRODUCT DEVELOPMENT
SPRING 2025



BACHELOR'S DEGREE PROGRAM

1. Structure of the Bachelor's Degree Program
 - I. Box diagram
 - II. Elective courses
2. Computer Science with a minor subject
3. External Collaboration
4. Practical information

BACHELOR DEGREE IN IT PRODUCT DEVELOPMENT

BOX DIAGRAM & ELECTIVES

START 2023 OR EARLIER



BOX DIAGRAM – 2023 AND EARLIER

1st sem.	Foundations of IT Product Design (10 ECTS)	Introduction to programming (10 ECTS)	Calculus alpha (10 ECTS)
2nd sem.		Database Systems (5 ECTS)	The Web of Things (5 ECTS)
	IT Product Design Project (20 ECTS)		
3rd sem.	Physical Computing (10 ECTS)	Human-Computer Interaction (10 ECTS)	Software Engineering and Architecture (10 ECTS)
4th sem.	Experimental System Development (10 ECTS)	Computer Architecture, Networks and Operating Systems (10 ECTS)	Introductory Statistics and Data Analysis using R (5 ECTS)
			Organizing and Business Models for IT Innovations (5 ECTS)
5th sem.	Design as Products, Services, Systems and Experiences (10 ECTS)	Distributed Systems and Security (10 ECTS)	Elective (10 ECTS) <i>Recommended: Algorithms and data structures</i>
6th sem.	Shape-changing Objects and Spaces (10 ECTS)		Philosophy and Ethics of Computer Science and IT Product Development (5 ECTS)
		Bachelor's Project (15 ECTS)	

- Auxiliary subject
- Compulsory (only IT)
- Compulsory (IT & CS)
- Elective

RECOMMENDED ELECTIVES – YEAR 2023 AND EARLIER

Computer Science

- [Algorithms and Data Structures \(10 ECTS\)](#) - *Recommended*
- [Interactivity and Computer Mediation – Concepts, Theories, Methods, Cases](#) (10 ECTS) [master]
- [Multimodal Interaction \(10 ECTS\)](#) [master]
- [Engineering Interactive Technologies](#) (10 ECTS) [master]

Tech (Computer Engineering)

- [Digitale kredsløb \(5 ECTS\)](#)
- [Computerspilteknologier \(5 ECTS\)](#)

Arts (Digital Design & Information Science)

- [Data og digital kultur \(10 ECTS\)](#) [master]

START 2024 OR LATER

BOX DIAGRAM – 2024 AND LATER

1st sem	Foundations of IT Product Design (10 ECTS)	Introduction to programming (10 ECTS)	Calculus alpha (10 ECTS)
2nd sem	IT Product Design Project (20 ECTS)		
3rd Sem	Physical Computing (10 ECTS)	Human-Computer Interaction (10 ECTS)	Software Engineering and Architecture (10 ECTS)
4th Sem	Computer Architecture, Networks and Operating Systems (10 ECTS)	Design as Products, Services, Systems and Experiences (10 ECTS)	Introductory Statistics and Data Analysis using R (5 ECTS)
			Organizing and Business Models for IT Innovations (5 ECTS)
5th Sem	Electives (30 ECTS) OR Going Abroad <i>Recommended - Experimental System Development, Algorithms and Data Structures</i>		
6th Sem	Distributed Systems and Security (10 ECTS)	Bachelor's Project (15 ECTS)	Philosophy and Ethics of Computer Science and IT Product Development (5 ECTS)

- Auxiliary subject
- Compulsory (only IT)
- Compulsory (IT & CS)
- Elective
- Going abroad

RECOMMENDED ELECTIVES – YEAR 2024 AND LATER

Computer Science

- [Experimental System Development \(10 ECTS\)](#) - *Recommended*
- [Algorithms and Data Structures \(10 ECTS\)](#) - *Recommended*
- [Interactivity and Computer Mediation – Concepts, Theories, Methods, Cases \(10 ECTS\)](#) [master]
- [Multimodal Interaction \(10 ECTS\)](#) [master]
- [Engineering Interactive Technologies \(10 ECTS\)](#) [master]
- [Sustainable Interaction Design \(10 ECTS\)](#) [master]
- [Designing Wearables \(10 ECTS\)](#) from 2026 [master]
- [Natural Language Processing \(NLP\)](#) [master]
- [Visual computing: Interactive Computer Graphics and Vision \(10 ECTS\)](#) [master]
- [Data Visualization \(10 ECTS\)](#) [master]
- [Deep Learning for Visual Recognition \(10 ECTS\)](#) [master]

Mathematics

- [Indledende Algebra 1+2 \(5+5 ECTS\)](#)

Tech (Computer Engineering)

- [Digitale kredsløb \(5 ECTS\)](#)
- [Computerspilteknologier \(5 ECTS\)](#)

Arts (Digital Design & Information Science)

- [Data og digital kultur \(10 ECTS\)](#) [master]

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

Further information

<https://studerende.au.dk/en/studies/subject-portals/computer-science/project-collaboration>

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](#)

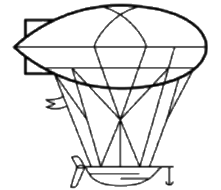
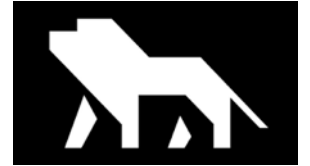
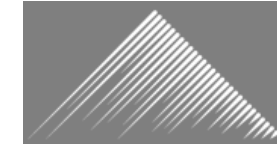
Student Entrepreneurship at CS

HatchIT Lab

- Local student entrepreneurship hub at CS
- Office Space and access to facilities at CS Dept.
- Networking with other CS student startups

The Kitchen

- Central AU Entrepreneurship hub
- Funding support
- Business developers and advisors/mentors
- Workshops and events for entrepreneurs



For more information contact Søren Poulsen <https://www.au.dk/poulsen@cs.au.dk/>



STUDENT JOBS

www.cs.au.dk/jobwall
www.cs.au.dk/businessclub

 **STIBO SYSTEMS**
MASTER DATA MANAGEMENT

.nitor


TRIFORK.


GRUNDFOS

 **BEUMERGROUP**


eficode

 **BETTER
COLLECTIVE**

Vestas

SYSTEMATIC

 **InCommodities**

Uber

 **LUXION**
Advanced Lighting Technology

bankdata

DIS

 **CRYPTOMATHIC**

RAMBOLL


Arla


TRELLEBORG


QIAGEN

TERMA[®]


INCUBA


Danish Crown

 **danske
commodities**


LEGO

MFT

netcompany

OK

 **hummel**

 **EPICO**

BESTSELLER[®]

 **ALEXANDRA
INSTITUTE**

 **twoday IT Minds**


INCUBA


**TECITY
AARHUS**

**Destination
AARhus**

DigitalLead.

**Copenhagen
Fintech** 

PRACTICAL INFORMATION



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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, Louise or 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 no later than the 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,
 - Outside AU: see <https://studerende.au.dk/en/studies/subject-portals/computer-science/rules-and-guidelines/credit-transfer>.
 - Outside Nat-Tech, but inside AU: see <https://studerende.au.dk/en/studies/subject-portals/computer-science/rules-and-guidelines/enrolment-in-a-credit-module>.
 - Apply well in advance!
 - Advance approval of credit transfer is no guarantee that you will be admitted to the course!

For courses in the summer, see
<https://studerende.au.dk/en/summeruniversity>

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/>

STUDENT COUNSELOR

Marc Tao Stender

- 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.



STUDENT COUNSELOR

Andreas Juul Jespersen

- 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.



ADVICE

- If you fall behind or do not pass a course at the latest by the first reexamination, then contact the program managers or the student counselor for 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.
- 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 the program managers.
- All students have at least three exam attempts for each course. Passing grades cannot be improve through additional attempts.
- Project reports must be handed in through Wiseflow before the deadline. If you do not hand in before the deadline, you will receive an administrative fail-grade and will not be able to attend the oral exam. This rule apply to both exam and re-exams.

Program managers

Contact us at ua@cs.au.dk

Louise Bødker Wøbbe <https://www.au.dk/lbw@cs.au.dk>

Søren Poulsen <https://www.au.dk/poulsen@cs.au.dk/>

Andreas Birch Olsen <https://www.au.dk/abolsen@cs.au.dk>



