Welcome to the Computer Science (Joint Degree with VU) Meet & Ask session during the UvA Master’s Week.

We start in a few minutes.

Questions:
Please only ask them in the Q&A (not in the chat).

The session is not being recorded this time.

Some time to spare? Take a quick look at our Instagram account @uva_science for interesting facts and activities at our Science Park. (but be back on time....)
Master Introduction

Computer Science, Joint Degree VU-UvA

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Your hosts today:

• Zoltan Mann
  • UvA scientific coordinator of the CS MSc program
  • Associate professor, UvA
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• Alban Ponse
  • Former UvA scientific coordinator of the CS MSc program
  • Associate professor, UvA

• Chih-Chieh Lin
  • Master student CS, track BDE

• Casper van Ek
  • Master student CS, track FCC

This presentation:
https://surfdrive.surf.nl/files/index.php/s/n3b2vQEPAPqFnXF
Welcome to Amsterdam!

As a Computer Science student you are offered the best of two universities within a single Master program.

◆ Vrije Universiteit Amsterdam, Dept. of Computer Science
◆ University of Amsterdam, Informatics Institute

You will take courses by lecturers from both universities, at both locations (VU campus and Science Park).
COMPUTER SCIENCE JOINT DEGREE

Joint degree: one diploma issued by both universities

Larger selection of courses

More research opportunities for graduation projects and world-class researchers at your fingertips

More of everything…

But you’ll need to travel between two campuses and cope with two different administrative systems
FACT SHEET

2 years program

120 ECTS credits

taught in English

international student population

excellent job perspective in industry (in NL and abroad)

stepping stone for a career in industry or academia
5 different tracks

◆ 5 (or 4) compulsory courses per track
◆ Master core (for all tracks)
◆ constrained choices
  ◆ programming
  ◆ software engineering
  ◆ security
  ◆ foundations
  ◆ mathematics
  ◆ societal context
◆ free choices (some courses are pre-approved)
BIG DATA ENGINEERING (BDE)

Focus: How to cope with the enormous amounts of data on e.g. the Internet and social media and in companies

Compulsory courses:
- Web Services and Cloud-based Systems
- Data Mining Techniques
- Web Data Processing Systems
- Large Scale Data Engineering
FOUNDATIONS OF COMPUTING AND CONCURRENCY (FCC)

**Focus:** Apply formal methods in computing and concurrency

**Compulsory courses:**
- Protocol Validation
- Logical Verification
- Advanced Logic
- Term Rewriting Systems
- Distributed Algorithms
INTERNET AND WEB TECHNOLOGY (IWT)

**Focus:** Technology for Internet and Web

**Compulsory courses:**

- Advanced Computer Networks
- Distributed Systems
- Distributed Algorithms
- Storage Systems
- Web Services and Cloud-based Systems
PARALLEL COMPUTING SYSTEMS (PCS)

**Focus:** Large-scale parallel computing

(clusters, grids, clouds, mainframes)

**Compulsory courses:**

- Parallel System Architectures
- Programming Large-scale Parallel Systems
- Parallel Programming Practical
- Programming Multi-core and Many-core Systems
- Performance Engineering
SOFTWARE ENGINEERING AND GREEN IT (SEG)

Focus: Mastering complex software systems for a sustainable digital society

Compulsory courses:
- Green Lab
- Service Oriented Design
- Digital Architecture
- Software Testing
- Fundamentals of Adaptive Software
Constrained choice, social context of computer science:

➢ **History of Digital Cultures** on history of computing
➢ **ICT for Development** on ICT in developing countries
➢ **ICT4D in the Field**, an ICT project in a rural community
➢ **E-commerce Law** on legal issues for on-line business
➢ **Entrepreneurship in AI and CS** on starting a company

Literature Study

**Master Project** (30 ECTS)
CONSTRAINED CHOICE

Ensuring breadth of each individual study program

Constrained choice modules (18-24 ECTS):
* programming
* software engineering
* security
* foundations
* mathematics

Each to be chosen from a predefined set of choices

Partially covered by your track's core
**FREE CHOICE**

**Free choice** (24-30 ECTS):

Courses from other tracks and other courses from constrained choices are pre-approved

Any course from a pre-approved list of suggestions

Other courses (at Master-level) from Computer Science, Computational Science, Artificial Intelligence, Bioinformatics, Logic, … *(to be approved by the exam committee)*
YOU CAN TAILOR YOUR STUDY PROGRAM

Do you want to develop your own study program?
Devise your own *free* Master program and get it approved by the exam committee.

Want to go to industry?
Do your graduation project as an internship with a company (or do an *Industrial Internship* for 6 ECTS).

Want to go for a larger research project?
Combine *literature study*, *research project*, and *Master project* into a scientific research project of up to 42 ECTS.
Track coordinators

• **CS tracks:**
  – BDE: *Dr. Adam Belloum* \(\text{a.s.z.belloum@uva.nl}\)
  – FCC: *Dr. Femke van Raamsdonk* \(\text{femke@cs.vu.nl}\)
  – IWT: *Dr. Lin Wang* \(\text{lin.wang@vu.nl}\)
  – PCS: *Dr. Jacopo Urbani* \(\text{j.urbani@vu.nl}\)
  – SEG: *Dr. Ivano Malavolta* \(\text{i.malavolta@vu.nl}\)
Double degree programs for MSc students (e.g. GSEEM for the SEG Track)

- You follow year 1 of the program at the VU
- You follow year 2 of the program at the partner university
COURSES AT THE UNIVERSITY OF AMSTERDAM

Several courses are at Science Park

Beware to register for UvA courses and exams in time
MSc Computer Science

Your courses at the University of Amsterdam (UvA)

Location: SCIENCE PARK AMSTERDAM
https://www.amsterdamsciencepark.nl/contact/getting-there/

Course-registration@UvA (theory):
1. you will receive a UvA-net-ID from the (UvA) Central Registration Office
2. then you can register for courses via https://datanose.nl/#masterenrol

Following courses@UvA (practice):
1. visit UvA-classes that you want/have to; timetable at https://rooster.uva.nl/schedule
2. your registration is completed in 2 weeks

Contact person for your UvA-courses:
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