

Welcome!

Master Programmes in Computer Science and Computer Engineering Winter Term 2024/25



Prof. Dr. Michael Rohs
Human-Computer Interaction
michael.rohs@hci.uni-hannover.de

Faculty of Electrical Engineering and Computer Science



Areas

Computer science

Information technology

Electrical engineering

divided into institutes
and research groups

Facts and Figures

35 professors (incl. junior professors)

305 academic staff

56 employees in technology and administration

3906 students, of which 16 % are female students
and 33 % foreign students

510 graduates (WS 2021/22)

36 completed doctorates (academic year 2021)

21.2 million in third-party funds (2020)

(Sources: LUH Zahlenspiegel 2021-2023)

Overview

1. Structure of the degree programme (examination regulations)
2. Range of courses (course catalogue, module catalogue)
3. Course materials (Stud.IP)
4. Information on studying (central pages of the LUH, pages of the faculty)
5. Specializations in the Master's degree programme
6. Examination rules

Examination Regulations

- Define the framework conditions for a degree programme in a legally binding manner
- Describe the structure of the Master's programme

- Examination Regulations Computer Science (Master of Science)
 - <https://www.uni-hannover.de/de/studium/im-studium/pruefungsinfos-fachberatung/informatik-msc/ordnungen/>

- Examination Regulations Computer Engineering (Master of Science)
 - <https://www.uni-hannover.de/de/studium/im-studium/pruefungsinfos-fachberatung/technische-informatik-msc/ordnungen/>

Master's Programme in Computer Science

Competence area (KB)	Credit points (CP)
Computer science	39-87
Fundamentals of computer science	0-15
Internship at a company (12 weeks)	0 or 15
Minor subject	0 or 12-17
General studies	3-6
Master thesis	30
in total	120

Written examinations, oral examinations, seminars and the Master's thesis are graded;
 Labs, projects and internship are not.

A maximum of 35 credit points from laboratories, projects or the internship will be recognized.

M. Sc. Informatik

Beispielhafter Studienverlauf

v7.9.2023

1. Semester	2. Semester	3. Semester	4. Semester
Informatik (5 LP)	Informatik (5 LP)	Informatik (5 LP)	Masterarbeit (30 LP)
Informatik (5 LP)	Informatik (5 LP)	Informatik (5 LP)	
Informatik (5 LP)	Informatik (5 LP)	Betriebspraktikum* (12 Wochen, 15 LP) ODER Informatik (3 x 5 LP)	kann angemeldet werden, wenn mind. 60 LP erworben sind
Informatik ODER Grundl. der Informatik (5 LP)	Studium Generale (3-6 LP)	Informatik ODER Nebenfach (5 LP)	
Informatik ODER Nebenfach (5 LP)	Informatik ODER Nebenfach (5 LP)		
Informatik ODER Nebenfach (5 LP)	Informatik ODER Nebenfach (5 LP)	Informatik ODER Nebenfach (5 LP)	
30	30	30	30
			120

Leistungspunkt-Anforderungen PO 2022
Informatik: 37-87
Studium Generale: 3-6
Betriebspraktikum: 0 oder 15
Grundlagen der Informatik: 0-15
Nebenfach: 0 oder 12-17
Masterarbeit: 30
Gesamt: 120

* Bitte beachten Sie, dass im gesamten Studiengang maximal 35 LP aus Laboren, Projekten und/oder Betriebspraktikum angerechnet werden (s. PO, Anlage 1).

M.Sc. Computer Science: **KB Computer Science**

Free choice from the following module groups (corresponding to research groups):

Theoretical Computer Science Prof. Vollmer

Knowledge-based systems Prof. Nejdl / Jun. Prof. Sikdar

Data Science and Digital Libraries Prof. Auer

Visual Analytics Prof. Ewerth

Management of scientific data Prof. Vidal Serodio

Databases and Information Systems Prof. Abedjan

Human-Computer Interaction Prof. Rohs / apl. Prof. Becker

Software Engineering Prof. Schneider

Empirical Information Security Prof. Fahl

Usable Security and Privacy Prof. Dürmuth

...

M.Sc. Computer Science: **KB Computer Science**

Free choice from the following module groups:

System and Computer Architecture Prof. Lohmann / apl. Prof. Brehm

Reliable and scalable software systems Prof. Rellermeier

Computational Health Informatics Prof. von Voigt

Automatic image interpretation Prof. Rosenhahn

Machine Learning Prof. Lindauer

Machine Language Processing Prof. Wachsmuth

Digital Education and Didactics of Computer Science Prof. Krugel

Communication Networks Prof. Fidler (IT)

Multimedia Signal Processing Prof. Ostermann (IT)

Architectures and Systems Prof. Blume (IT)

Mixed Signal Circuit Technology Prof. Wicht (IT)

M.Sc. Computer Science: KB Fundamentals of Computer Science

0-3 specialised modules (0-15 LP) from:

Operating Systems

Computational Health Informatics

Computational Health Inf. lab

Data Mining

Database systems

Digital Circuits in Electronics

Real-time systems

Real-time systems laboratory module

Electrical engineering module

Energy Informatics

Design automation

Information Systems

Internet technologies

IT security

IT security laboratory

Artificial Intelligence

Logical Design of Digital Systems

Medical IT Applications

Human-Computer Interaction

Modelling

Programming

Computer Architecture

Simulation

Software Engineering

Theoretical Computer Science

M.Sc. Computer Science: Courses Offered

- Course/module catalogue:
<https://modkat.dbs.uni-hannover.de/modkat/lvk/>
- Institute/department pages:
<https://www.fei.uni-hannover.de/de/fakultaet/institute-fachgebiete/>
- Dates, rooms, announcements, forum:
Stud.IP: <https://studip.uni-hannover.de>



Lehrveranstaltungs-/Modulkataloge zu eigenen der Fakultät für Elektrotechnik und Informatik

Dieser Lehrveranstaltungs-/Modulkatalog bietet eine Übersicht über das
sowie der Elektrotechnik und Informationstechnik.

Status: Die Angaben (ab ca. Mitte Februar) bis zum nächsten oder laufenden
bis zum nächsten oder laufenden Wintersemester sind durch Studienkommission
genehmigt. Spätere Angaben sind noch vorläufig und nicht in allen Fächern
mittelfristigen Studienplanung dienen.

STUDIENGANG Zum Suchen bitte anklicken.	ZusatzInfo	ausführlicher Modulkatalog	Semester Prüfung
Informatik - Bachelor (PO 2017)	info	pdf	pdf
Informatik - Master (PO 2017)	info	pdf	pdf
Technische Informatik - Bachelor (PO 2017)	info	pdf	pdf
Technische Informatik - Master (PO 2017)	info	pdf	pdf

M.Sc. Computer Science: KB Minor Subject

0-1 minor subject (0 or 12-17 LP):

Business administration

Energy technology

Information technology

Cartography and remote sensing

Life Science

Mechanical engineering and mechatronics

Mathematics

Philosophy

Physics

Economics

KB = Kompetenzbereich
= area of competence

Minor subject is selected
implicitly with the first exam,
can be changed later (once)

Specializations in the Master Programme Computer Science (optional)

- Certificate for a maximum of one specialization can be applied for if at least 45 LP (without Master's thesis) from the area of specialization
- Data Science (Prof. Ewerth)
 - Data science deals with methods for extracting findings, patterns and conclusions from structured or unstructured data.
- Human-centered computing (Prof. Rohs)
 - Human-centered computing is about designing interactive computer systems that are suitable for use, appropriate to the task and trustworthy.
- Systems-oriented computer science (Prof. Lohmann)
 - System-oriented computer science deals with the design and development of hardware and software infrastructures.
- <https://www.fei.uni-hannover.de/de/studium/im-studium/informatik-m-sc/themenschwerpunkte-im-master->

Master's Programme in Computer Engineering

Competence area (KB)	Credit points (CP)
Computer science	20-57
Information technology	30-67
Fundamentals of Computer Engineering (Inf./IT specialized modules)	0-15
Internship (12/16 weeks)	0 or 15/20
General studies	3-6
Master thesis	30
in total	120

Written examinations, oral examinations, seminars and the Master's thesis are graded;

Labs, projects and work placement are not.

A maximum of 35 ECTS credits from laboratories or projects are recognized (45 ECTS credits if company internship)

1. Semester	2. Semester	3. Semester		4. Semester
Informatik (5 LP)	Informatik (5 LP)	Informatik (5 LP)		Masterarbeit (30 LP) kann angemeldet werden, wenn mind. 60 LP erworben sind
Informatik (5 LP)	Informatik (5 LP)	Informationstechnik (5 LP)		
Informatik (5 LP)	Informationstechnik (5 LP)	Informationstechnik (5 LP)	ODER Betriebspraktikum* (0, 15 oder 20 LP)	
Informationstechnik (5LP)	Informationstechnik (5 LP)	Informationstechnik (5 LP)		
Informationstechnik (5 LP)	Informationstechnik (5 LP)	Informationstechnik (5 LP)		
Informatik ODER Informationstechnik ODER Gr. d. techn. Inf. (5 LP)	Studium Generale (5 LP)	Informatik, Informationstechnik, Gr. d. techn. Inf. (5 LP) ODER noch Betriebspraktikum*		

Leistungspunkt-Anforderungen
Informatik: 20-57
Informationstechnik: 30-67
Studium Generale: 3-6
Betriebspraktikum: 0 oder 15-20 LP
Grundlagen der techn. Informatik: 0-15
Masterarbeit: 30
Gesamt: 120

* Das Betriebspraktikum ist nur als Block mit 15 oder 20 LP wählbar.

LP 30 30 30 30 120

M.Sc. Computer Engineering: KB Computer Science

Free choice from the following module groups:

Theoretical Computer Science Prof. Vollmer

Knowledge-based systems Prof. Nejdl / Jun. Prof. Sikdar

Data Science and Digital Libraries Prof. Auer

Visual Analytics Prof. Ewerth

Management of scientific data Prof. Vidal Serodio

Databases and Information Systems Prof. Abedjan

Human-Computer Interaction Prof. Rohs / apl. Prof. Becker

Software Engineering Prof. Schneider

Empirical Information Security Prof. Fahl

Usable Security and Privacy Prof. Dürmuth

...

M.Sc. Computer Engineering: **KB Computer Science**

Free choice from the following module groups:

System and Computer Architecture Prof. Lohmann / apl. Prof. Brehm

Reliable and scalable software systems Prof. Rellermeier

Computational Health Informatics Prof. von Voigt

Machine Learning Prof. Lindauer

Machine Language Processing Prof. Wachsmuth

Digital Education and Didactics of Computer Science Prof. Krugel

M.Sc. Computer Engineering: KB Information Technology

Free choice from the following module groups:

Automatic image interpretation Prof. Rosenhahn

Communication Networks Prof. Fidler

Multimedia Signal Processing Prof. Ostermann

Architectures and Systems Prof. Blume

Mixed Signal Circuit Technology Prof. Wicht

Message transmission systems (TI only) Prof. Peissig

High Frequency Technology and Radio Systems (TI only) Prof. Manteuffel

Architectures and Systems Prof. Blume

Mixed Signal Circuit Technology Prof. Wicht

Electrical Engineering and Electronics (ET) each with more offers for TI than for INF

Planning the Master's Programme

on time: 3 semesters + Master's thesis

top-down: Module groups / main topics

bottom-up: interesting current offers

constraint-preserving: PO rules

Examination Rules for First Attempts

- Inform
 - Examinations offered at the beginning of the semester in the module catalogue
 - Exam dates soon after the start of the semester on the website of the examination office
 - Oral examination dates later by arrangement with examiners
- Register
 - Online exam registration for VbP: Oct. 15-31 VbP = course-accompanying examination
 - Online exam registration: Nov. 15-30
 - in the QIS system: <https://qis.verwaltung.uni-hannover.de>
- Deregister
 - Cancellation period for exams: 7 calendar days
 - Cancellation deadline for oral examinations: 1 calendar day
 - For seminars: no cancellation after the topic has been issued (VbP)
 - Cancellation in case of illness with certificate (declaration of cancellation, Annex 4a of the PO)

Examination Rules for Second or Third (max.) Attempts

- Inform, register, participate or not
 - Rules as for the first attempt
- After the third failed attempt at an examination, the degree programme would be definitively failed!
 - An examination does not have to be passed if elective (compulsory) requirements can be fulfilled in another way.
 - Tip: Don't sign up for a third attempt!
Better choose something else.
 - After the third unsuccessful attempt in a written examination a supplementary oral examination is offered.
- Projects and labs are coursework, not examinations
 - Also register for this in the QIS system

Examination Rules for Master's Theses

- Inform about topics in specialised areas
- After reaching 60 LP, have admission confirmed by the examination office
- Topics assigned by examiners, not externally by companies
- 6 months, 30 LP = 900 hours = "full-time" (= 25 weeks x 36 hours)
- Only repeatable once

Rules for „Auflagenprüfung“ (Preliminary Admission)

- In addition to the 120 LP of the Master's programme
- Normally take part with the regular Bachelor's examination
- Some examiners offer an oral examination in individual cases, possibly also outside the examination period, please enquire if necessary
- Do not register at the examination office, but directly with the examiner
- Examiner confirms passing of the conditional examination on a form from the Enrolment Office
- Confirmations at the latest after two semesters to the enrolment office!

Study Abroad

- There are recognition options for outgoing students, in particular extra modules "Study abroad". Require a "Learning Agreement".
- PD Dr habil. Arne Meier is contact person for studying abroad
 - <https://www.thi.uni-hannover.de/de/meier>



New: Double Degree with Technical University of Wien

- Study two semesters at TU Wien (possibly including Master's thesis)
- Specialization: Theoretical Computer Science and Foundations of Artificial Intelligence (within Master Programme “Computational Logic” at TU Wien)
- Degree certificates from both LUH and TUW
- Programme will start in October 2024
- If you are interested, approach Prof. Vollmer (see last slide) soon.

Central Examination Office (Prüfungsamt)

Prüfungsinfos und Fachberatung - Informatik
(Master of Science)

Ansprechpartner/-innen	Ordnungen	Termine
Prüfungsanmeldung	Prüfungsrücktritt	Formulare
Bescheinigungen		

Contact person at the Examination Office:

Computer Science and Computer Engineering:

Kirstie Kohlmetz

kirstie.kohlmetz@zuv.uni-hannover.de

0511 762 2020

- <https://www.uni-hannover.de/de/studium/im-studium/pruefungsinfos-fachberatung/studiengang/detail/info/informatik-1/>
- <https://www.uni-hannover.de/de/studium/im-studium/pruefungsinfos-fachberatung/studiengang/detail/info/technische-informatik-1/>

Information of the Faculty

<https://www.fei.uni-hannover.de/de/studierende/>

Studierende

Informationen für Studierende



Start ins Studium

Unterstützungsangebote für einen erfolgreichen Studienstart



Mein Studiengang

Ausführliche Informationen zu den Studiengängen



Studieren im Ausland

Hilfreiche Informationen für das Auslandssemester



Serviceangebote

Angebote Lernunterstützung

FINDEN UND ORIENTIEREN

[Standortfinder](#)

[Stud.IP](#)

[Vorlesungsverzeichnis](#)

[Termine](#)

[Prüfungsausschüsse](#)

[Modulkatalog](#)

Contact Persons

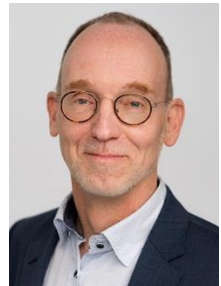


Coordination of Computer Science and Computer Engineering („Studiengangskordinatorin“)

Ulrike von Holdt
+49 511 762-7479
vonholdt@et-inf.uni-hannover.de
Appelstr. 11
30167 Hanover

Coordination for the introductory phase of studies („Kordinatorin für die Studieneingangsphase“)

Dr Inske Preißler
+49 511 762-14188
inske.preissler@et-inf.uni-hannover.de
Appelstr. 11
30167 Hanover



Study counselling Computer Science

Prof Heribert Vollmer
+49 511 762-19703
vollmer@thi.uni-hannover.de
FG Theoretical Computer Science
Appelstr. 9a (Room 1612)
30167 Hanover

Counselling for Computer Engineering

Prof Holger Blume
+49 511.762-19640
blume@ims.uni-hannover.de
Institute for Microelectronic Systems
FG Architectures and Systems
Appelstr. 4
30167 Hanover



Dean of Studies for Computer Science

Prof Daniel Lohmann
+49 511 762-19725
lohmann@sra.uni-hannover.de
FG System and Computer Architecture
Appelstr. 4 (Room 105)
30167 Hanover

Office of the Dean of Studies

Lisa Beckmann
T +49 511.762-19615
F +49 511.762-19646
studiendekanat@et-inf.uni-hannover.de
Appelstr. 11
30167 Hanover



Links

- Faculty pages:
<https://www.fei.uni-hannover.de/de/studierende/>
- Course and module catalogue:
<https://modkat.dbs.uni-hannover.de/modkat/lvk/>
- Institute/department pages:
<https://www.fei.uni-hannover.de/de/fakultaet/institute-fachgebiete/>
- Stud.IP:
<https://studip.uni-hannover.de>
- Examination information:
 - <https://www.uni-hannover.de/de/studium/im-studium/pruefungsinfos-fachberatung/studiengang/detail/info/informatik-1/>
 - <https://www.uni-hannover.de/de/studium/im-studium/pruefungsinfos-fachberatung/studiengang/detail/info/technische-informatik-1/>