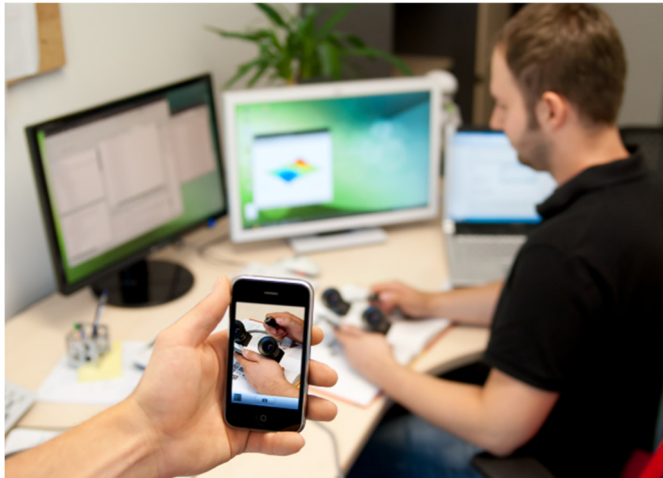




Welcome to the master's program in Computer Science!

Total expenditure

Sum of credits to be achieved: 120

Duration: 4 semesters resp. 2 years

Degree: Master of Science (M.Sc.)

Start of courses

Winter term (October - March): 13. October 2025

Summer term (April - September): 23. April 2025

Language of instruction

Lectures and exercises are in English on demand otherwise in German.

Structure

The structure of the master program is based on the current recommendations of the German Society for Computer Science (GI). It is subdivided into four sections: A. Informatics, B. Projects, C. Languages and D. Master Thesis.

Registration

A registration for courses is NOT needed. It is necessary that you register in advance for all your exams. Please see:

<https://my.uni-bayreuth.de/cmlife/welcome>

Section A: Informatics

To be achieved: 35 to 45 Credits

More information about all courses will be available online (<https://elearning.uni-bayreuth.de>). Please note that the courses start at quarter past.

Courses in winter term 2025/26

INF 209: Animation und Simulation (5 Credits)

Lecture: Thu, 12-14, online, Prof. Guthe

Exercises: Wed, 10-12, NWII-S79, K. Liu

INF 212: Theoretical Computer Science II (5 Credits)

Lecture: Tue, 16-18, INF-S112, Prof. Martens

Exercises: Mon, 12-14, INF-S112, Prof. Martens

INF 218: Data Analysis and Deep Learning in Python (5 Credits)

Lecture: Tue, 10-12, INF-H33, Prof. Müller

Exercises: Fr, 12-14, INF-2.01, Dr. Mingardo

INF 225: Advanced Software Engineering (5 Credits)

Lecture: Wed, 12-14, INF-S110, Dr. Chakraborty

Exercises: Mon, 14-16, INF-S112, Dr. Chakraborty

INF 227: Advanced Programming Concepts in Rust (5 Credits)

Lecture: Thu, 12:15-13:45, INF-S110, Dr. Niewerth

Exercises: Tue, 14:15-15:45, INF-1.03, Ch. Birzer

INF 316: Pattern recognition (5 Credits)

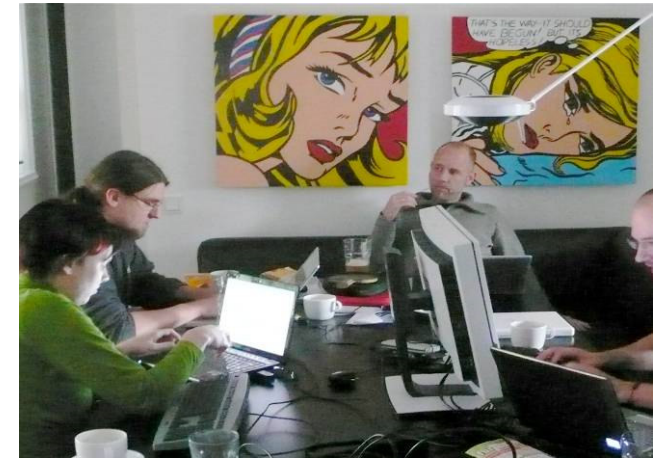
Lecture: Thu, 14-16, INF-S110, Prof. Henrich

Exercises: Mon, 12-13, INF-H34, J. Hartwig

INF 326: Foundations of Data Management (5 Credits)

Lecture: Thu, 10-12, INF-H34, Prof. Martens

Exercises: Thu, 16-18, INF-S112, Ch. Birzer



INF 328: Process Aware Information System (Module: Advanced Information Systems, 5 Credits)

Lecture: Tue, 12-14, INF-H34, Prof. Jablonski

Exercises: Fr, 13-14, INF-S110, Dr. Petter

INF 330: Computational Geometry II (5 Credits)

Lecture: Wed, 10-12, INF-S112, Dr. Stehn

Exercises: Fr, 10-12, INF-2.42, Dr. Stehn

Courses in summer term 2025

INF 202: Computer graphics I (5 Credits)

Lecture: Mon, 14-16, INF-H34, Prof. Guthe

Exercises: Tue, 12-13, INF-S112, K. Liu

Tue, 14-15, FAN-S106, K. Liu

Wed, 12-13, INF-S110, K. Liu

INF 218: Data Analysis and Deep Learning in Python (5 Credits)

Lecture: Tue, 10-12, INF-H33, Prof. Müller

Exercises: to be announced

INF 219: Intelligent User Interfaces (5 Credits)

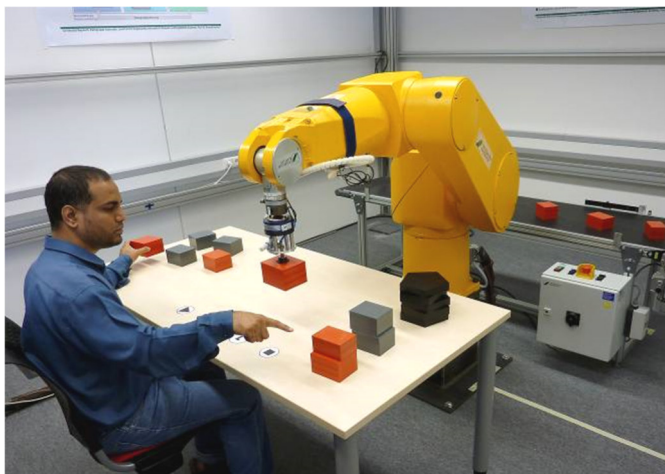
Lecture: Wed, 14-16, INF-H34, Prof. Buschek

Exercises: to be announced

INF 222: Event Processing (5 Credits)

Lecture: Tue, 14-16, INF-S110, Prof. Mayer

Exercises: Wed, 16-18, NWI-H9, Prof. Mayer



INF 223: Graph Processing and Machine Learning (GPML) (5 Credits)

Lecture: Tue, 16-18, INF-S110, Prof. Mayer
Exercises: Wed, 10-12, BGI-S88 (biweekly) Prof. Mayer

INF 228: Time Series and Machine Learning (5 Credits)

Lecture: Tue, 12:15-13:45, INF-S110, Prof. Leutheuser
Exercises: Thu, 10:15-11:45, INF-1.03, Prof. Leutheuser

INF 305: High Performance Computing (8 Credits)

Lecture: Tue, 8-10, INF-S112, Prof. Rauber
Wed, 8-10, INF-H34, Prof. Rauber
Exercises: Mon, 10-11:30, INF-S112, H. Shatri

INF 307: Data Analysis II

(Module: Data Analytics, 8 Credits)
Lecture: Mon, 12-14, INF-H34, J. Neuberger
Exercises: Tue, 8-10, INF-H34, S. Petter

For INF 307 (Data Analytics) both parts (Data Analysis I and Data Analysis II) are necessary

INF 315: Robotics II (Robotik II, 5 Credits)

Lecture: Thu, 14-16, INF-S110, Prof. Henrich
Exercises: Tue, 12-13, NWII-S70, J. Hümmer

INF 318: Computer graphics III (5 Credits)

Lecture: Tue, 8-10, Online, Prof. Guthe
Exercises: Thu, 13-14 + 14-15, INF-S110+S112, K. Liu

INF 320: Parallel algorithms (5 Credits)

Lecture: Mon, 8-10, INF-S112, Dr. Korch
Exercises: Wed, 12-14, INF-S112, Dr. Korch

INF 329: Computational Geometry I (5 Credits)

Lecture: Wed, 10-12, INF-S112, Dr. Stehn
Exercises: Tue, 10-12, INF-S112, Dr. Stehn

Section B: Projects

To be achieved: 30 to 31 Credits

Please contact the computer science chairs directly.

Projects in both terms

INF 351: Small Master Project
(Kleines Master-Projekt, 8 Credits)

INF 352: Large Master Project
(Großes Master-Projekt, 15 Credits)

At least one Large Master Project is needed.

INF 353: Large Master Seminar
(Großes Master-Seminar, 8 Credits)

At most one Large Master Seminar is allowed.

Section C: Languages

To be achieved: 15 to 24 Credits

The German language courses are provided by the Language Centre (Sprachenzentrum)

Please see: www.sz.uni-bayreuth.de

German Level A1 has to be achieved within first year.

Section D: Master Thesis

To be achieved: 30 Credits

INF 301: Master Thesis
(Masterarbeit, 30 Credits)

Please contact the computer science chairs directly.



UNIVERSITÄT
BAYREUTH

Valid for **summer term 2025** and **winter term 2025/26**

Master's program in Computer Science



www.ai.uni-bayreuth.de/de/studium/master-computer-science/