

Welcome to the master's program in Computer Science!

Total expenditure

Sum of credits to be achieved: 120

Duration: 4 semester resp. 2 years

Degree: Master of Science (M.Sc.)

Start of courses

Winter term (October - March): 14. October 2024

Summer term (April - September): 15. April 2024

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

It is necessary that you register in advance for all courses and 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 2023/24

INF 212: Theoretical Computer Science II (5 Credits)

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

Exercises: Mon, 12-14, INF-S112, Dr. Niewerth

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

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

Exercises: To be announced

INF 221: Reinforcement Learning for Scientists & Engineers (5 Credits)

Lecture: Thu, 13-15, B9,01, PC-Pool, Prof. Faisal

Exercises: Tue, 13-15, B9,01, Dr. Narayan

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

Lecture: Wed, 10-12, NWII-S74, Prof. Mayer/Martens

Exercises: Wed, 12-13, NWII-S74, N.N.

INF 307: Data Analysis I

(Modul: Data Analytics, 8 Credits)

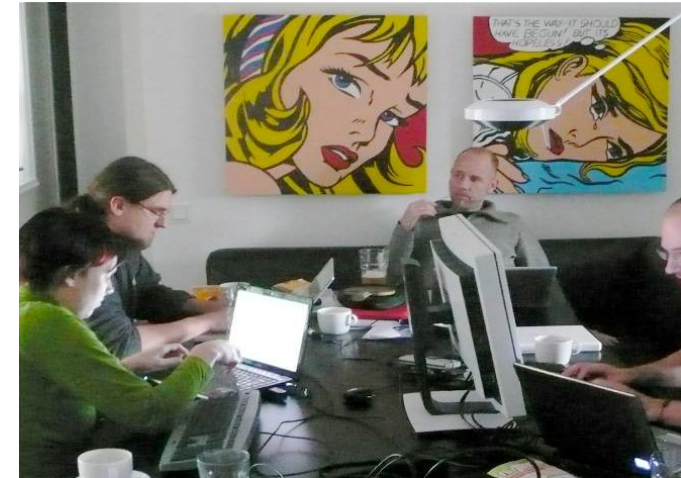
Lecture: Tue, 12-14, INF-H34, Prof. Jablonski

Exercises: Thu, 9-10, INF-S112, Dr. Ackermann

INF 316: Pattern recognition (5 Credits)

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

Exercises: Mon, 10-11, INF-S112, J. Hartwig



INF 326: Foundations of Data Management (5 Credits)

Lecture: Thu, 10-12, INF-S112, Prof. Martens

Exercises: Thu, 16-18, INF-S112, Dr. Niewerth

INF 328: Process Aware Information System

(Modul: Advanced Information Systems, 5 Credits)

Lecture: Wed, 14-16, INF-S112, Dr. Ackermann

Exercises: To be announced

INF 330: Computational Geometry II (5 Credits)

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

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

Courses in summer term 2024

INF 202: Computer graphics I (5 Credits)

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

Exercises: Tue, 12-13 + 14-15, INF-S110, K. Liu

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

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

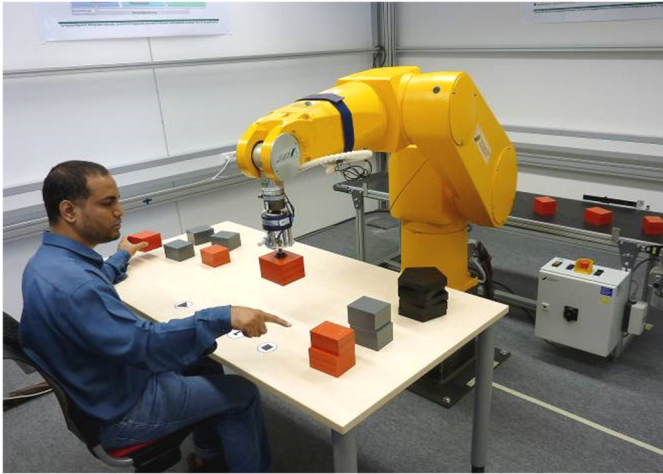
Lecture: Tue, 10-12, INF-H33, Prof. Müller

Exercises: To be announced

INF 219: Intelligent User Interfaces (5 Credits)

Lecture: Tue, 14-16, NWI-H9, Prof. Buschek

Exercises: Tue, 16-18, NWI-H9, Prof. Buschek



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 Big Master Seminar needed.

INF 353: Large Master Seminar

(Großes Master-Seminar, 8 Credits)

At most one Big Master Seminar allowed.

Section C: Languages

To be achieved: 15 to 24 Credits

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

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.

INF 222: Event Processing (5 Credits)

Lecture: Wed, 14-17, INF-S112, Prof. Mayer

Exercises: Wed, 17-18, INF-S112, Prof. Mayer

INF 305: High Performance Computing (8 LP)

Lecture: Mon, 8-10, INF-H34, Prof. Rauber

Wed, 8-10, INF-H34, Prof. Rauber

Exercises: Mon, 10-11:30, INF-S112, Dr. Werner

INF 307: Data Analysis II

(Modul: Data Analytics, 8 Credits)

Lecture: Mon, 12-14, INF-H34, Prof. Jablonski/Dr.

Ackermann

Exercises: Tue, 8-10, INF-H34, Dr. Ackermann

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

INF 318: Computer graphics III (5 Credits)

Lecture: Tue, 8-10, Online, Prof. Guthe

Exercises: Thu, 13-14 + 14-15, INF-S112, K. Liu

INF 320: Parallel algorithms (5 Credits)

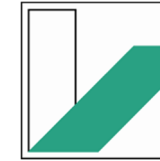
Lecture: Thu, 8-10, INF-S112, Dr. Korch

Exercises: Fri, 10-12, INF-S112, Dr. Korch

INF 321: Foundations of Semi-structured Data (5 Credits)

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

Exercises: Tue, 12-14, INF-2.40, Prof. Martens



**UNIVERSITÄT
BAYREUTH**

Valid for **summer term 2024** and **winter term 2023/24**

**Master's program
in Computer Science**



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