

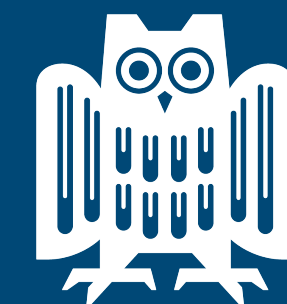
# DSAI MSc Welcome Meeting

Prof. Dr. Isabel Valera

<https://machinelearning.uni-saarland.de/>

(Slides credits to Prof. Dr. Dittrich)

# Welcome!



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**SIC** Saarland Informatics  
Campus



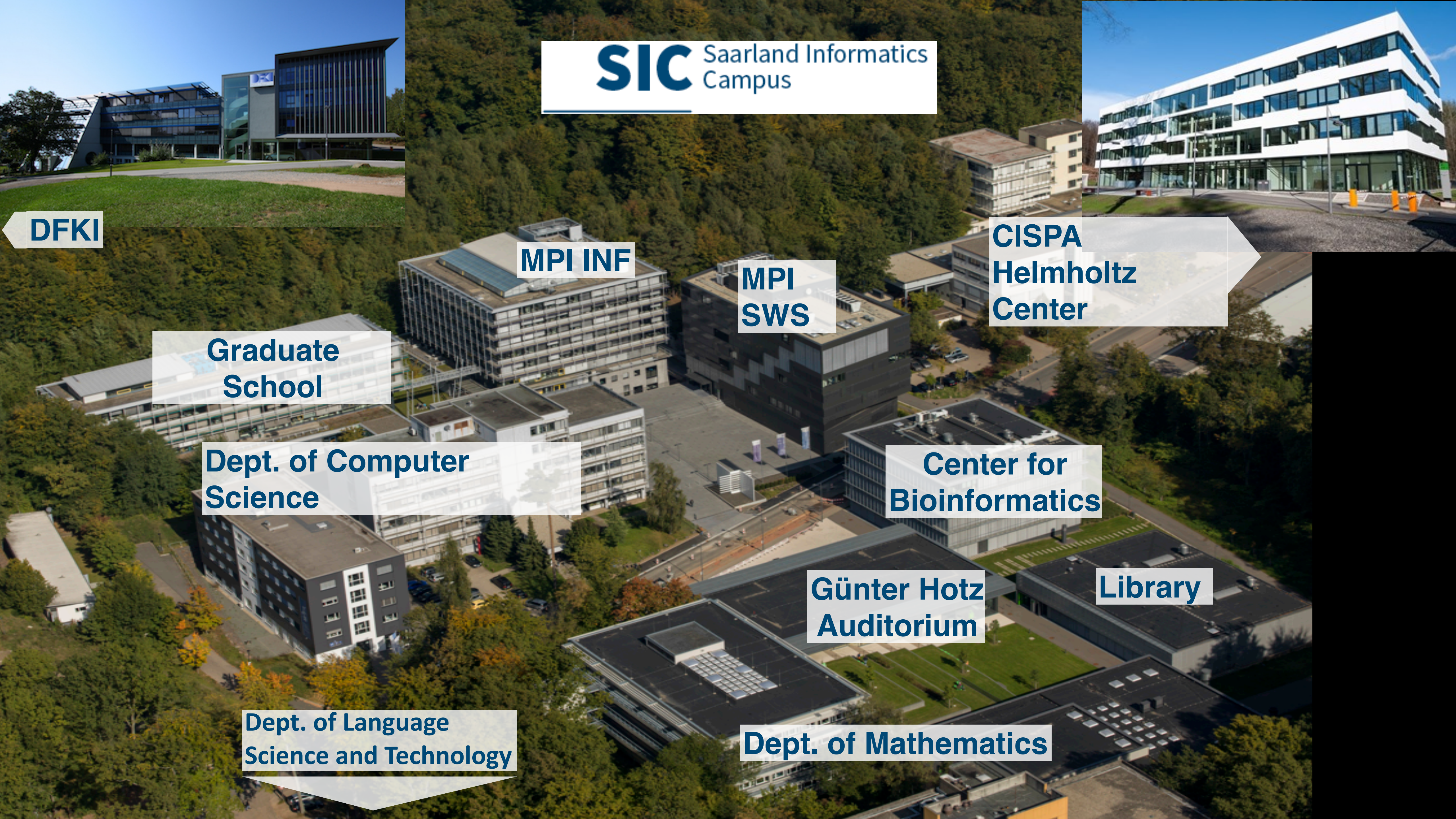


**DFKI**

**SIC** Saarland Informatics Campus



**CISPA Helmholtz Center**



**MPI INF**

**MPI SWS**

**Graduate School**

**Dept. of Computer Science**

**Center for Bioinformatics**

**Günter Hotz Auditorium**

**Library**

**Dept. of Language Science and Technology**

**Dept. of Mathematics**



# DSAI program

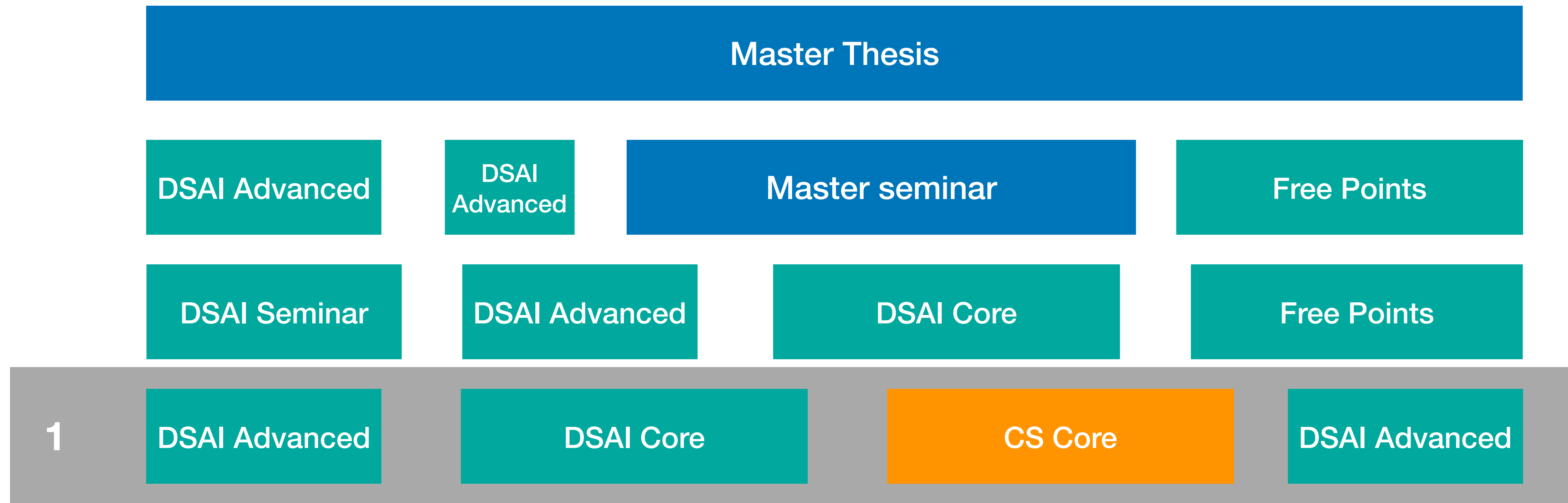
*Artificial intelligence is now being put to use everywhere, in online shopping, autonomous driving or medical data analysis. The international master's programme 'Data Science and Artificial Intelligence' aims to prepare students for demanding national and international research and development activities in this field. The Master's programme is based on complex data analysis and automation: from mathematics and statistics to machine learning, artificial intelligence, big data, data management, modelling and simulation or data visualization.*

# Program Structure & Duration

Duration: 4 semesters; Total credits: 120 ECTS

- 18 CP core lectures in 'Data Science and Artificial Intelligence' (DSAI)
- 9 CP core lectures in 'Informatics'
- 27–31 CP core lectures, advanced lectures or seminars in DSAI
- 7 CP seminars in DSAI
- min. 17 CP electives
- 12 CP Master's module including the master's seminar
- 30 CP master's thesis

# Example of MSc Plan



# DSAI MSc Course Catalog



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Hinweis: Der vollständige Funktionsumfang ist nur aus dem Uninetzwerk bzw. mit VPN nutzbar

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## Course Overview (SoSe 2025)

### ① Vorlesungsverzeichnis

#### → ① Mathematics and Computer Science

#### → ① Computer Science

#### → ① Courses on Data Science and Artificial Intelligence

#### → ① Master

#### → ① Core Lectures DSAI

#### → ① Core Lectures Computer Science

#### → ① Advanced Lectures DSAI

#### → ① Seminars DSAI

#### → ① Mandatory Elective Courses (Freely chosen points)





# Course Overview SS'25

## → ⓘ Core Lectures DSAI

Lect.-No.	Lecture
156441	<a href="#">Machine Learning</a> - Ochs , Mitarbeiter/-innen des Lehrstuhls
156443	<a href="#">Image Processing and Computer Vision</a> - Weickert , Mitarbeiter des Lehrstuhls

## ⓘ Core Lectures Computer Science

Lect.-No.	Lecture
156438	<a href="#">Cryptography</a> - Hanzlik , Döttling
156439	<a href="#">Introduction to Computational Logic</a> - Smolka
156440	<a href="#">Data Networks</a> - Feldmann
156472	<a href="#">Discrete Optimization (before Optimization)</a> - Karrenbauer
156473	<a href="#">Distributed Systems</a> - Druschel , Garg
156772	<a href="#">Cyber-Physical Systems (former Embedded Systems)</a> - Maggio
157331	<a href="#">Verification</a> - Kaminski
157953	<a href="#">Convex Analysis and Optimization</a> - Ochs , Mitarbeiter des Lehrstuhls

## ⓘ Advanced Lectures DSAI

Lect.-No.	Lecture
155263	<a href="#">Machine Translation</a> - van Genabith
155272	<a href="#">Statistical Natural Language Processing</a> - Klakow
156444	<a href="#">High Level Computer Vision</a> - Schiele
156456	<a href="#">Trustworthy Machine Learning</a> - Fritz , Dziedzic
156458	<a href="#">Topics in Algorithmic Data Analysis</a> - Vreeken
157141	<a href="#">Attacks Against Machine Learning Models</a> - Zhang
157220	<a href="#">Trusted AI Planning</a> - Hoffmann
157236	<a href="#">Spezialvorlesung der Bioinformatik: Algorithms for Sequence Analysis</a> - Rahmann
157295	<a href="#">Image Compression</a> - Peter
157352	<a href="#">Numerical Algorithms for Visaul Computing</a> - Weickert , Chizhov
157633	<a href="#">Recht der Cybersicherheit - Datenschutzrechtliche Aspekte</a> - Mitarbeiter des Lehrstuhls , Sorge
157948	<a href="#">Stochastik I</a> - Mitarbeiter des Lehrstuhls , Bender
157952	<a href="#">Mathematical Statistics (Mathematische Statistik)</a> - Zähle , Mitarbeiter des Lehrstuhls
158096	<a href="#">Image Compression</a> - Peter , Mitarbeiter des Lehrstuhls

## Master seminar & Master thesis



### Master Seminar (12 ECTS)

Objective: Prepares students for their Master's Thesis by introducing them to independent research and topic presentation

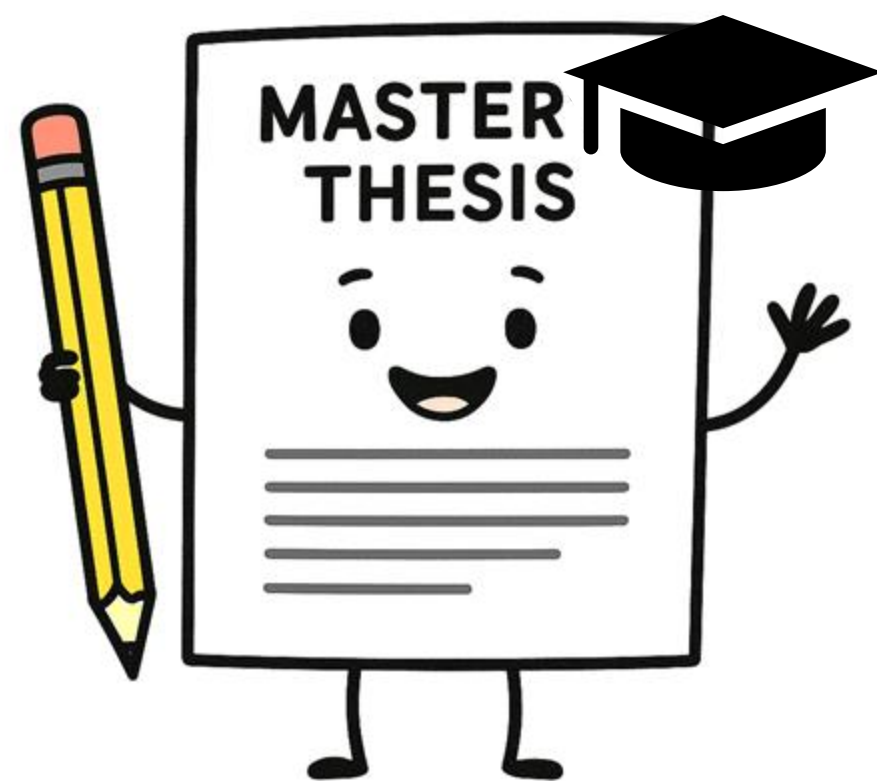
#### Requirements:

- *Presentation:* Students must give an oral presentation clearly outlining their intended thesis topic
- *Written Proposal:* A written description specifying the problem, objectives, and methodology must accompany the presentation

Timeline: The Master's thesis topic must be registered within one semester after successfully completing the Master Seminar; failure to meet this deadline will require attendance in a new seminar



## Master seminar & Master thesis



### Master Thesis (30 ECTS)

Objective: Demonstrates the student's ability to independently solve complex problems in *Embedded Systems* through original scientific work

Duration: The thesis must be completed within six months after official registration

Colloquium: A mandatory 30-minute colloquium (oral defense) must be completed within six weeks after thesis submission, validating the thesis as the student's own original work

Assessment and Grading: The thesis and colloquium are graded, significantly contributing to the overall Master's degree grade



## Assessment and examination: academic integrity & original work

### Written exams, oral exams, seminar presentations, and project work

- possibility to retake core lecture exams once, in the same semester to improve your grade
- **Originality:** All submitted work, particularly projects, theses, and seminar assignments, must reflect your own thoughts, analyses, and conclusions
- **Proper Citation:** Always acknowledge sources of ideas, data, code, images, or direct quotations clearly in accordance with academic standards
- **Zero Tolerance for Plagiarism:** Plagiarism can lead to severe academic penalties, including failing grades, suspension, or expulsion



# Control of progress

Full-time students are expected to deliver the following minimum requirements in the Master course of study:

- At least 9 credits after 1 semester
- At least 30 credits after 2 semesters
- At least 60 credits after 4 semesters
- At least 90 credits after 6 semesters

In case a student does not meet the minimum requirements for the second time, they shall lose the right to participate in examinations. Students shall be given the opportunity to make a written statement before the examination board makes the final decision in the matter.



# Examination registration I

## **Please notice:**

For all examinations you have to register in HISPOS one week before the exam at the latest (final exam and/or re-exam)! A delayed registration is not allowed !!

A withdrawal is possible one week before the respective exam at the latest; later only with medical certificate!

## **Only for core lectures:**

You can improve a grade in a core course if you pass the final exam and take part in the re-exam in the same exam period. The better grade counts.

# Examination registration II

For some courses e.g. seminars you have also to register before the course starts (limited number of participants). Please have a look at the respective website because of the conditions for registration.

Seminar registration: <https://seminars.cs.uni-saarland.de/>

A withdrawal from a seminar registration is only possible three weeks after getting the topic for presentation.

Problems? Please contact the study coordination!



# Important Documents

## What?

- (1.) Joint Examination Regulations for Bachelor's and Master's degree programmes of the Faculty of Mathematics and Computer Sciences 2021
- (2.) Subject-Specific Regulations DSAI
- (3.) Study Regulations Master DSAI 2019

## Where?

<https://www.ps-mint.uni-saarland.de/>

# Contacts (1/2)

## Computer Science Students' Representative Council

Students of different study programmes

E1.3, Raum 107

<https://cs.fs.uni-saarland.de/en/>

Emails to: [help@cs.fs.uni-saarland.de](mailto:help@cs.fs.uni-saarland.de)

## Study Coordinators: Dr. Rahel Stoike-Sy and Barbara Schulz-Brünken

Assistance in your study organisation and progress:

- questions about the examination and study regulations
- academic or personal problems
- information about exchange semesters, etc.

Building E1.3, rooms 209 and 207

**Office hours:** Please book your online appointment via the website:

<https://outlook.office365.com/owa/calendar/>

[StudienkoordinationInformatikstudiengnge@uni-saarland.de/bookings/](mailto:StudienkoordinationInformatikstudiengnge@uni-saarland.de/bookings/)

Emails to: [studium@cs.uni-saarland.de](mailto:studium@cs.uni-saarland.de)



The study coordinators in the computer science department.



## Contacts (2/2)

### **Examination office:**

Administration and processing of your programme achievements:

- Transcript of record
- registration master thesis
- official certificates
- recognition of external academic achievements, etc.
- Kontakt:

Building E1.3, room 202

**Office hours:** information on website

Emails to: Frau Stephanie Sum ( [dsai@ps-mint.uni-saarland.de](mailto:dsai@ps-mint.uni-saarland.de) )

More info: <https://www.ps-mint.uni-saarland.de/>

**SIC System Administration:** <https://it.cs.uni-saarland.de/>

**We are pleased to welcome you and we wish you a great start with your DSAI MSc studies!**