# Welcome to Saarland Informatics Campus!

Prof. Dr. Sebastian Hack









### **Saarland Informatics Campus**





### At a Glance

- ~ 900 scientists at SIC
- −56 professors (29 dept)
- −31 junior research group leaders
- Currently 3 SFBs (collaborative research centers)
- −40 ERC Grants, 7 Leibniz awards, 6 Konrad Zussededals
- −9 ACM fellows, 2 IEEE fellows, 2 AAAI fellows
- −2.800 students in 24 programs from over 80 nations, ~ 400 PhDstudents



Folie 4	
SG0	junior group habe ich nur diese "Quelle": https://saarland-informatics-campus.de/forschung-research/forschungsgruppen-der-saarbruecker-informatik/ Sahra Ina Raymonde Grolier; 2023-11-15T08:50:41.240
SG1	die phd students sind teil der 900 scientists, fyi Sahra Ina Raymonde Grolier; 2023-11-15T08:58:21.253
SG2	Und hier die Quelle für eine beliebige Aufschlüsselung der Profs: https://docs.google.com/spreadsheets/d/1vQpGwWsjXaji_u6RidcMDBmUmUVqsHateJxZeZchAg4/edit#gid=0 Sahra Ina Raymonde Grolier; 2023-11-15T09:16:20.941
SG3	würde ich rausnehmen, hier haben wir keine aktuellen Daten. Sahra Ina Raymonde Grolier; 2024-10-08T08:30:05.634



### **Your Study Documents**

### Where?

→ On the website of the examination office (ps-mint)

#### Content:

#### I. General provisions

Section 1 Scope

Section 2 General information

Section 3 Types of degree programmes

Section 4 Student workload

Section 5 Standard period of study

Section 6 Modularization and ECTS credits

Section 7 The Examination Board

Section 8 Examiners, thesis examiners, supervisors, observers

Section 9 Studying part-time

Section 10 Progress checks

Section 11 Core skills

Section 12 Admission to the Master's programme

#### II. Student assessments

Section 13 Student assessments

Section 14 Participation in student assessments

Section 15 Academic accommodations

Section 16 Grading/marking of student assessments and grading system

Section 17 Repeating academic assessments and examinations

Section 18 Deception and plagiarism

Section 19 Recognition of previous periods of study and earlier coursework, exam admission

prerequisites and examination credits

#### III. Bachelor's or Master's thesis

Section 20 Admission to the Bachelor's or Master's thesis phase

Section 21 Subject of the Bachelor's or Master's thesis

Section 22 Duration and deadlines

Section 23 Procedural elements, presentation and layout of the thesis

#### IV. Degree qualification

Section 24 Successfully completing the Bachelor's or Master's programme and overall grade

#### **Study Programme Documents (Downloads)**

► Examination regulations: german / english

#### **Bachelor Computer Science (English)**

- Subject-specific regulations: german / english
- ► Study regulations: german / english
- ► Module guide: english

#### **General Informations**

#### **Studying and Taking Exams**

- The 'failed first attempt' rule (only in Bachelor's degree programmes)
- Plagiarism
- Recognition of study and examination achievements
- Applying for an examination certificate

#### Internships/Tutor Activity

- ► Internship
- Master's level practical assignments or projects
- Tutor activity

Read your study documents carefully!

You have to know your rights and duties as a student!



### **Course Catalogue = LSF**

### Course Overview (WiSe 2025/26)

- ① Vorlesungsverzeichnis
- → ① Bachelor (inkl. Optionalbereich)
  - → ① Cybersecurity (English)
    - → ① Introductory courses
    - → ① Basics of Mathematics (Mandatory)
    - → ① Basics of Computer Science (Mandatory)
    - → ① Projects (Mandatory)
    - → ① Specialized Mandatory Area
    - → ① Introductory seminars
    - → ① Seminars
    - → ① Core topics of Cybersecurity (Elective)
    - → ① Complementary topics of Cybersecurity (Elective)
    - → ① Freely chosen points



## **Study Plan Computer Science**

1	Mathematics for Computer Scientists 1 (9 CP)	Programming 1 (9 CP)	Lecture Series on "Perspectives in Computer Science" (2 CP)	Language Course (6 CP)	26
2	Mathematics for Computer Scientists 2 (9 CP)	Programming 2 (9 CP)	System Architecture (9 CP)	Mandatory elective (e.g., Language course, 3 CP)	30
	offered durin	g the break between summer and v	vinter term: "Software Engineering L	.ab" (9 CP)	9
3	Mathematics for Computer Scientists 3 (9 CP)	Introduction to Theoretical Computer Science (9 CP)	Fundamentals of Data Structures and Algorithms (6 CP)	Introductory Seminars (5 CP)	29
4	Big Data Engineering (6 CP)	Concurrent Programming (6 CP)	Core Lecture (9 CP)	Seminar (7 CP)	28
5	Elements of ML (6 CP)	Core Lecture (9 CP)	Core / Advanced Lecture (9 CP)	Mandatory elective (e.g., Tutoring, 4 CP)	28
6	Core / Advanced Lecture (9 CP)	Bachelor's Seminar (9 CP)	Bachelor's Thesis (12 CP)		30



## 1) 2 CP (ungraded) from the mandatory area 'Lecture Series on Topics in Computer Science'

→ Perspectives in Computer Science

LectNo.	Lecture	Type	Activity
159919	<u>Programming 1</u> - Hermanns	Introductory lecture course	
159920	<u>Fundamentals of Data Structures and Algorithms</u> - Bläser , Bringmann	Introductory lecture course	
159921	Introduction to Theoretical Computer Science - Seidel	Introductory lecture course	
159922	<u>Lecture Series Perspectives in Computer Science</u> - Nagashima	Lecture	
159933	Elements of Machine Learning - Valera Martinez	Lecture / Exercise/problem-solving class	



## 2) 27 CP (graded) from the mandatory area 'Fundamentals of Mathematics'

**Winter: '**Mathematics for Computer Scientists 1' and 'Mathematics for Computer Scientists 3'

**Summer:** 'Mathematics for Computer Scientists 2'

LectNo.	Lecture	Туре	Activity
160501	Mathematics for Computer Scientist III - Zähle , Mitarbeitende des Lehrstuhls	Lecture / Exercise/problem-solving class	
160841	Mathematics for Computer Scientists I - Groves , Mitarbeitende des Lehrstuhls	Lecture / Exercise/problem-solving class	



## 3) 60 CP (graded) from the mandatory area 'Fundamentals of Computer Science', e.g.:

Winter: 'Programming 1'

**Summer:** 'Programming 2'

LectNo.	Lecture	Туре	Activity
159919	<u>Programming 1</u> - Hermanns	Introductory lecture course	
159920	<u>Fundamentals of Data Structures and Algorithms</u> - Bläser , Bringmann	Introductory lecture course	
159921	Introduction to Theoretical Computer Science - Seidel	Introductory lecture course	
159922	Lecture Series Perspectives in Computer Science - Nagashima	Lecture	
159933	Elements of Machine Learning - Valera Martinez	Lecture / Exercise/problem-solving class	



## 4) 9 CP (ungraded) from the mandatory practical skills classes

→ Practical Training 'Software Engineering Lab'

Takes place during the break between summer and winter semesters

Prerequisite: Passing 'Programming 1 + 2'



- 5) 5 CP (graded) from the mandatory elective category 'Introductory Seminars on Topics in Computer Science' (each worth 5 credits)
- 6) 7 CP (graded) from the mandatory elective category 'Seminars on Topics in Computer Science'
- 7) 18 graded credits from the core lecture courses in computer science (each worth
- 9 credits; module category: mandatory elective)



- 8) 18-21 CP (graded) from the core or advanced lecture courses on Computer Science
- 9) At least 6 CP (ungraded) from the mandatory elective category 'German or English Language Courses'

Note: the language chosen shall not be the student's first/native language



## 10) At least 7 CP (ungraded) from the mandatory elective category 'Freely Selectable Modules'

- Language courses
- Tutoring
- Soft skills
- Internship etc.

11) 9 CP (graded) from the 'Bachelor's Seminar' module and 12 CP (graded) from the 'Bachelor's Thesis' module.



## **Study Plan Cybersecurity**

F Semester CP →

Selliestel			•	L -3
Programming 1 (9 CP)	Mathematics for Computer Scientists 1 (9 CP)	Foundations of Cyber Security 1 (9 CP)	Mandatory Elective (e.g., Introduction to Python, 3 CP)	30
Programming 2 (9 CP)	Mathematics for Computer Scientists 2 (9 CP)	Foundations of Cyber Security 2 (6 CP)	Language Course (6 CP)	30
Cyber Security Lab (6 CP)	Introduction to Theoretical Computer Science (9 CP)	Fundamentals of Data Structures and Algorithms (6 CP)	Cyber Security Proseminar (5 CP)	26
Cryptography (9 CP)	System Architecture (9 CP)	Cyber Security Complementary Lecture (6 CP)	Statistics Lab (6 CP)	30
"Softwa	re Engineering Lab" (9 CP) offered du	ring the break between summer and v	vinter term	9
Advanced Lecture Cyber Security (6 CP)	Elements of Machine Learning (6 CP)	Cyber Security Complementary Lecture (6 CP)	Cyber Security Seminar (7 CP)	25
Advanced Lecture Cyber Security (6 CP)	Bachelor's Thesis (12 CP)	Bachelor's Seminar (9 CP)	Mandatory Elective (e.g., language course, 3 CP)	30
	Programming 1 (9 CP)  Programming 2 (9 CP)  Cyber Security Lab (6 CP)  Cryptography (9 CP)  "Softwa  Advanced Lecture Cyber Security (6 CP)  Advanced Lecture Cyber Security	Programming 1 (9 CP)  Programming 2 (9 CP)  Mathematics for Computer Scientists 1 (9 CP)  Mathematics for Computer Scientists 2 (9 CP)  Introduction to Theoretical Computer Science (9 CP)  Cryptography (9 CP)  System Architecture (9 CP)  "Software Engineering Lab" (9 CP) offered du  Advanced Lecture Cyber Security (6 CP)  Advanced Lecture Cyber Security  Bachelor's Thesis (12 CP)	Programming 1 (9 CP)  Mathematics for Computer Scientists 1 (9 CP)  Mathematics for Cyber Security 1 (9 CP)  Mathematics for Cyber Security 1 (9 CP)  Mathematics for Computer Scientists 2 (9 CP)  Cyber Security 2 (6 CP)  Introduction to Theoretical Computer Science (9 CP)  Cryptography (9 CP)  System Architecture (9 CP)  Cyber Security Complementary Lecture (6 CP)  *Software Engineering Lab" (9 CP) offered during the break between summer and value of Cyber Security Complementary Lecture (6 CP)  Advanced Lecture Cyber Security (6 CP)  Bachelor's Thesis Cyber Security (9 CP)  Bachelor's Seminar (9 CP)	Programming 1 (9 CP)  Mathematics for Computer Scientists 1 (9 CP)  Programming 2 (9 CP)  Mathematics for Computer Scientists 2 (9 CP)  Data Structures and Algorithms (6 CP)  Cryptography (9 CP)  System Architecture (9 CP)  Cryptography (9 CP)  System Architecture (9 CP)  Software Engineering Lab* (9 CP) offered during the break between summer and winter term  Advanced Lecture Cyber Security Complementary Lecture (6 CP)  Cryptography (6 CP)  Bachelor's Thesis  Bachelor's Seminar (7 CP)  Mandatory Elective (e.g., Introduction to Python, 3 CP)  Language Course (6 CP)  Cyber Security 2 (6 CP)  Cyber Security Complementary Lecture (6 CP)  Cyber Security Complementary Lecture (6 CP)  Cyber Security Complementary Lecture (6 CP)  Advanced Lecture Cyber Security Cyber Security Complementary Lecture (6 CP)  Mandatory Elective (6 CP)  Mandatory Elective (6 CP)  Mandatory Elective (6 CP) (9 CP)  Mandatory Elective (9 CP) (9 CP) (9 CP)  Advanced Lecture Cyber Security Cyber S



## 1) 18 CP (graded) from the mandatory area 'Fundamentals of Mathematics'

Winter: 'Mathematics for Computer Scientists 1'

**Summer:** 'Mathematics for Computer Scientists 2'

Basics of I	Mathematics (Mandatory)		
LectNo.	Lecture	Туре	Activity
160841	<u>Mathematics for Computer Scientists I</u> - Groves , Mitarbeitende des Lehrstuhls	Lecture / Exercise/problem-solving class	



## 2) 54 CP (graded) from the mandatory area 'Fundamentals of Computer Science', e.g.:

Winter: 'Programming 1'

**Summer:** 'Programming 2'

LectNo.	Lecture	Type	Activity
159919	Programming 1 - Hermanns	Introductory lecture course	
159920	<u>Fundamentals of Data Structures and Algorithms</u> - Bläser , Bringmann	Introductory lecture course	
159921	Introduction to Theoretical Computer Science - Seidel	Introductory lecture course	
159933	Elements of Machine Learning - Valera Martinez	Lecture / Exercise/problem-solving class	



## 3) 15 CP (ungraded) from the mandatory practical skills classes

→ Practical Training 'Software Engineering Lab' (9 CP)

Takes place during the break between summer and winter semesters

Prerequisite: Passing 'Programming 1 + 2'

→ Practical Training 'Cybersecurity Lab' (6 CP)



## 4) 24 CP (graded) from the specialized mandatory area of Cybersecurity, e.g.:

Winter: 'Foundations of 'Cybersecurity 1'

**Summer:** 'Foundations of 'Cybersecurity 2'

① Spec	ialize	d Mandatory Area		
Lect.	No.	Lecture	Туре	Activity
15993	36	Foundations of Cyber Security 1 - Stock	Introductory lecture course	



- 5) 5 CP (graded) from the mandatory elective category 'Introductory Seminars on Topics in Cybersecurity'
- 6) 7 CP (graded) from the mandatory elective category 'Seminars on Topics in Cybersecurity'
- 7) At least 12 CP (graded) from the mandatory elective category 'Core Topics in Cybersecurity'



- 8) At least 12 CP (graded) from the mandatory elective category 'Complementary Topics in Cybersecurity'
- 9) At least 6 CP (ungraded) from the mandatory elective category 'German or English Language Courses'

Note: the language chosen shall not be the student's native language)



## 10) At least 6 CP (ungraded) from the mandatory elective category 'Freely Selectable Modules'

- Language courses
- Tutoring
- Soft skills
- Internship etc.

11) 9 CP (graded) from the 'Bachelor's Seminar' module on topics in Cybersecurity or Computer Science and 12 CP (graded) from the 'Bachelor's Thesis' module on a topic in the field of Cybersecurity/Computer Science