Master-Inform #05

winter term 2026/27

Inform

Magazine of the CS student body





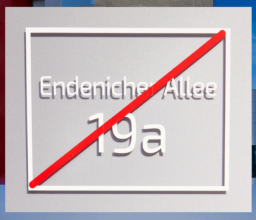




















Your path to healthy student life

Discover the new TK-StudyGuide! It's so important to stay healthy during your studies or vocational training. That's why we have a whole range of support services, including free webinars and lots more. **Take a look:**



Die Techniker

Editorial

Welcome to the Computer Science, Cyber Security, Artificial Intellience and Life Science Informatics programs at the University of Bonn!

You probably have a lot of questions regarding your degree, your course of study, life in Germany and Bonn specifically, how the University of Bonn works and many more. But don't worry, we have all been there and will try to answer as many of your questions as possible. In addition to this magazine we also organize an Orientation Unit (OU) (see page 1), where we show you around campus, provide some insight into student life and explain organizational topics like the the courses of study or when and where to register for exams - plus it's a great opportunity to get to know your fellow students. We will gladly try to answer any remaining questions you might have after reading this magazine, so do not hesitate to ask us anything you want! You can either visit our office in room 0.019 (adjacent to the foyer of the Computer Science building) or reach out to us by email via `fs@fachschaft.info`.

We wish you all the best for your studies and life in Bonn!
Your student body council

Orientation Unit

To help you and your fellow freshers start your life at university, we organize the orientation unit (OU). At this event, we give you information about how your degree programme is structured, as well as general information about Bonn, the University and the Poppelsdorf campus. In addition to the informative parts, this is also a great opportunity for getting to know your fellow students.

The OU takes place on October 6th 2026 in Room 0.109 of the b-it[1] and starts at 10:00 CET. Details are available here:

`oe.fachschaft.info/en`

[1] Bonn-Aachen International Center for Information Technology

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Map: Campus Poppelsdorf



Map Design Bettina Esser 2024, Map data from OpenStreetMap (Published under ODbL)

The Student Body

Where is the student body?

You can find us almost every day in the student body rooms 0.019 and 0.020, right next to the foyer, and we're always happy to have visitors! Whether you have a question, need advice, want to get involved, or just want to relax and chat over a popsicle — just drop by. The left room, the office, is primarily for productivity, questions, and the like, while the right room features sofas that invite you to relax and socialize.

Our website lists official opening hours, but these are just the times when we guarantee that someone will be there (known as AwD). Usually you can find someone there almost all day.

What does the student body do?

Work for freshers

In order to give all new students the best possible start to their studies, we organize an information and orientation event, the OU (Orientation unit), during the first week of the semester (more information at `oe.fachschaft.info/en`) and we publish this magazine digitally and in print. Of course, you are also welcome to come to us before and after the OU if you have any questions.

Advice

During the semester, we are available for you daily and try to help you with any concerns, needs, or problems you may have regarding your studies. See location and opening hours above. Just drop by! We are also happy to answer any questions you may have via email at `fs@fachschaft.info`!

We also represent you if you have any problems with lecturers, tutors, or the examination office. You can report problems, usually anonymously, and we will then talk to the relevant people on your behalf.

If we cannot help you with your current issue directly, we try our best to redirect you to a person or office that can.

Committee work

Student representatives have seats on many university committees — the representatives are proposed by the student body. In these committees, we get to be part on decisions, such as what changes should made to the examination regulations, how funds for the improvement of teaching quality should be distributed, or which new lecturers are to be hired. If such topics are important to you, contact your student body!

Services

The student body offers a wide range of services for your everyday student life. These include, for example:

Beverages For €1.20 per bottle (€1 with a 10-bottle card!), we offer Spezi, lemonade, mate, and cola, as well as a variety of seasonally changing flavors

Coffee & Tea are available free of charge! Just make your own with the machines, powder, and tea bags provided. Cow milk and oat milk are available in the refrigerator.

Popsicles are also free of charge, for as long as the freezer is full. What's your favorite flavor?

Past exams No idea what will be on the exam? Then take a look at last year's exams! Simply log on to the university Wi-Fi and go to `altklausuren.fachschaft.info` (see page 42)

Hot water bottles with fluffy covers can be borrowed from us at any time to relieve stomach aches or keep you warm on cold days.

Staplers, hole punches, ring binders, or laminators are available for free use for your daily bureaucratic needs.

Notebooks are available for free while supplies last.

Lockers Don't feel like carrying your books or bike helmet around all day? Then rent a locker from us (free of charge, €15 deposit).

Lecture survey (VLU) Each semester, you can anonymously review your modules here. Results: `vlu.fachschaft.info`

Events

From game nights and parties to joint exam preparation with waffles, alumni presentations and lecture series to barbecues and cocktail evenings – the student body organizes many events for you throughout the year. (Don't want to miss out? Check out the fs-news and Socials.)

Have a cool idea for an event yourself? Talk to us! We are happy to support you with the organization by providing money and materials, booking rooms, helping with permits, and contacting our network of event helpers.

Would you like to help with events, but not be the main organizer? Then join the fs-engel (student body angels) mailing list! (Subscribe via our website)

Information everywhere

Website: `www.fachschaft.info`
Our main place to publish information for you. This is also where you can subscribe to our **mailing lists** "fs-news", "fs-engel" and "jobboerse".

Regular posts about events and PSAs will also appear on **Instagram** (`@fachschaft_info`) and the inofficial CS Master **Discord** server (invite link in the sidebar of our website).

In front of our office you will find tons of posters and flyers promoting events, studies, contests and services, as well as two screens with student body info and live arrivals data for the nearest bus stops.

Who is the student body? Can I join too?

The student body consists of students like you, who have decided to volunteer their time to help other students.

Anyone can join the student body and is technically already a member. If you decide to become active in the student body, there are many areas where we can use your help and where you can get involved.

Formally, two committees are elected: the FSV is elected by all students in the department and, the FSR, who handle day-to-day business is elected by the FSV. Student council elections are held every year in the summer semester. Come along and cast your vote or even stand as a candidate yourself!

Nevertheless, being elected is not a prerequisite for participation. Our meetings (currently Wednesdays at 6pm, room 0.016) are open to the public and all students are welcome to join in on the discussion and vote on motions.

Anyone can be elected to a position within the student body and be responsible for an area such as social media, beverages, IT, or past exams, for example. We are also always happy to recommend interested newcomers for committee seats (see above). If you want to start small, you can help out at an event as an angel or take on an AwD together with an experienced student representative.

We are happy to help you find the right project for you and will not leave anyone out in the cold with student body work. You are also welcome to just drop by and socialize without having to take on any tasks right away.

Your Student Body Representatives



Linus



Kolja



Felix



Emilia

Awareness

Hello, we hope you had a great first week of your studies! We — Anna, Robin and Linus — are the Awareness Team of the Student Body Council Computer Science, and we want to make sure that everyone feels safe at the institute. You can find us at game nights, the OU, and the summer party, where we want to make sure you feel comfortable and can enjoy the event, and are available to talk to if anything happens. Of course, you can also come to us outside of events or send us an email if someone treats you or your fellow students in a disrespectful manner or repeatedly violates the Code of Conduct, especially if you cannot or do not want to confront them yourself.

The Code of Conduct is a guideline to ensure respectful interactions in which everyone feels comfortable. You can find it at the following link:

Code of Conduct

`www.sp.uni-bonn.de/dokumente/idx/Sonstige/Fachschaften/COC-Informatik.html`

Is something bothering you about your everyday life at university? Have you had a bad experience with other people at university, or do you just need someone to talk to? Then feel free to contact us :)

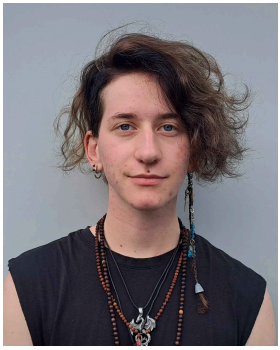
We have an email address that all members of the team have access to: `informatik.awareness@protonmail.com` You can reach us via the shared address or via our individual addresses (see below). This is us :)



Anna Beckers
`anna.awareness@proton.me`



Linus Rodríguez Gómez
`linus.awareness@protonmail.com`



Robin Meth
`robin.awareness@protonmail.com`

Please note that we cannot offer psychosocial counseling. If you are unsure which form of support would be right for you or would like a first point of contact that is closer to everyday student life, you can contact us. We would be happy to discuss possible places where you can find the support you need and refer you to appropiate places if you wish.

Gender equality

Although legal gender equality is enshrined in law in many countries, including Germany, the reality of everyday life paints a different picture. Discrimination based on gender continues to exis - whether subtle or overt, structural or individual.

Of course, discrimination is not limited to gender alone. People with disabilities, first-generation college students, and other groups may also encounter structural barriers during their studies. So far, we have focused primarily on gender equality, as it is particularly relevant in computer science programs.

Gender equality means more than equal rights on paper: it strives to ensure that all people – regardless of their gender – have the same opportunities, rights, and possibilities in all areas of life. Gender equality encompasses both formal and de facto equal treatment.

This does not mean that differences should be ignored. Rather, it is about ensuring that no one is disadvantaged or privileged on the basis of their gender - whether in professional life, education, family, or politics. Education is, of course, very important to us, as there is still considerable inequality in some subjects, particularly in the fields of STEM, which is not accepted at our institute.

Why exactly is equality important?

An equal society promotes not only justice, but also economic and social stability. Equality thus contributes to the development of an inclusive, innovative, and resilient society. And, of course, equality also plays an important role when it comes to satisfaction, participation, and shared decision-making.

Those who do not have a seat at the table are not taken into consideration. Why do facial recognition programs recognize some faces worse than others? Why do algorithms sort applications according to patterns that reinforce discrimination? Often because the teams that developed them were too one-sided - not out of malice, but because of blind spots.

Who is affected?

The issue of equality affects everyone – people of every gender, every origin, and every social background.

Gender roles restrict everyone: Men often face pressure to perform and emotional restraint, while women and non-binary people more frequently struggle with prejudice and structural barriers.

People with disabilities or chronic illnesses often face the challenge of not being able to devote as much time to their studies as they would like. This can lead to lower grades or a longer time to complete their degree. Factors such as a lack of accessibility or courses offered exclusively in person can make daily student life more difficult.

First-generation college students* also face unique challenges, such as a lack of support from their families or financial constraints.

Those who did not grow up in Germany may struggle with language barriers, culture shock, or homesickness. Adjusting to a new environment and building social connections can take a lot of energy and make studying more difficult.

Equality therefore fundamentally means eliminating discrimination, regardless of its cause, and ensuring that everyone has equal opportunities to participate. Here, too, keep in mind that you all have different backgrounds, and that everyone can be supported in dealing with their own challenges.

Recognizing and overcoming these stereotypes and stigmas is a collective process. We **all** benefit from equality. Through collective action, equality can become a reality – and not just remain a legal promise. And you, too, can contribute: through awareness, respect, and a willingness to question your own perspective.

Be kind to the people around you, because you never know what they're struggling with.

What relevance does equality have in computer science?

Computer science is a male-dominated field—which partly reflects gender stereotypes and likely perpetuates them. These stereotypes often begin early – for example, through gender-specific socialization, a lack of role models, or subtle cues in school, the media, and the family. This can result in many non-cis-male[2] individuals never discovering their interest in computer science in the first place or not feeling confident enough to pursue this field. And the fewer FINTA* individuals[3] there are in computer science, the less it appears to the outside world as a field where FINTA* people[3] are welcome.

That is why it is important that non-cis-male[2] individuals do not feel like they are being overlooked: that they feel treated equally, seen, and respected just as much. And it is equally important that cis-male[2] individuals do not feel they have to conform to certain stereotypes: that they must be particularly tech-savvy, assertive, or performance-oriented in order to belong.

Our goal is to foster a sense of community and a spirit of cooperation among equals, regardless of gender.

Gender equality activists in the Student Body Council Computer Science

As the student council's equality officers, we – Annika, Sophia, and Paria – are actively committed to gender justice, equal opportunity, and a discrimination-free environment. Our goal is to draw attention to structural inequalities, raise awareness of the issue, and initiate concrete improvements, especially within the field of computer science.

You can always reach out to us with confidence, whether you've experienced or witnessed discrimination or unequal treatment, are looking for support, or simply need someone to talk to.

[2]cisgender (cis): A person is cisgender when the sex assigned at birth matches their gender identity

[3]FINTA*: female, intersex, non-binary, transgender, agender, and all other people who face marginalization due to their gender identity

If you're interested in getting involved in this area or have questions about gender equality issues, we'd love to hear from you. Feel free to ask for us in the student council room. Chances are one of us will be there, and if not, someone will give you our contact information. Together, we can help make our student council more open, fair, and inclusive.

Strenghtening equality in computer science

GIDIS
GLEICHSTELLUNG
IN DER INFORMATIK
STÄRKEN

In our computer science department, equal opportunities are not just a principle, but are actively promoted. Since 2020, the "GIDIS" (german "Gleichstellung in der Informatik stärken") working group has been dedicated to strengthening equality in our institute.

Our commitment extends across all levels - from students and doctoral candidates to postdoctoral researchers, professors, and staff. We are committed to ensuring that everyone has the same opportunities and support.

What could be interesting to you?

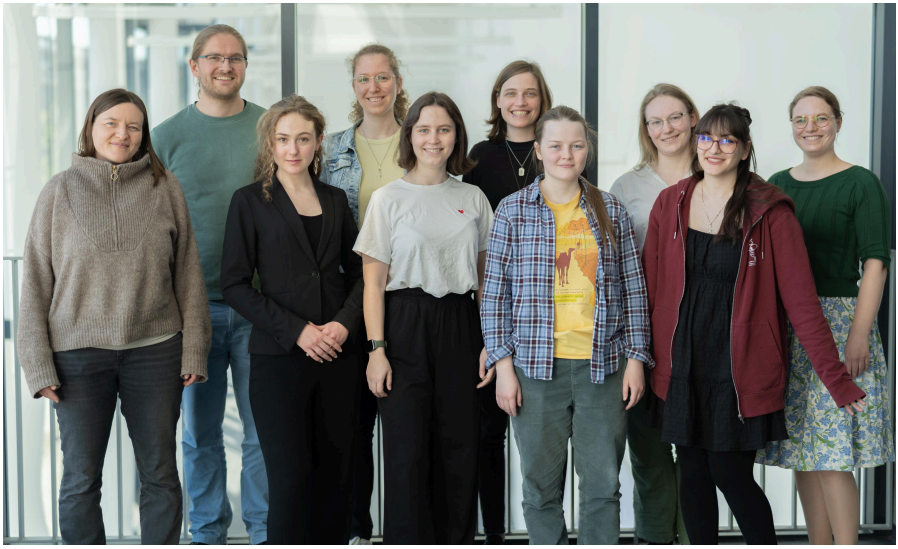
We organize regular networking events for various target groups, inviting alumni or other role models to speak on a specific topic. This gives you the opportunity to get to know your fellow students in a relaxed environment, away from your coursework, while enjoying a few cookies.

At least once a semester, we organize a company visit where we get a glimpse into the working world of women in IT fields that you might not even think of when considering your future career.

At least once per semester, we organize a company visit (traditionally during **Dies Academicus**), where participants gain insight into the working lives of women in computing-related professions—often in fields that might not immediately come to mind when thinking about future career opportunities. So far, we have visited organizations such as RheinGas, the German Federal Office for Information Security (BSI), and several other employers.

Until now, GIDIS has primarily focused on supporting FINTA* people[3] students. In the future, however, we also aim to place greater emphasis on supporting students with disabilities or chronic illnesses, as well as first-generation university students.

New people are always welcome, so feel free to write to us if you'd like to join!



Mentoring Program of GIDIS

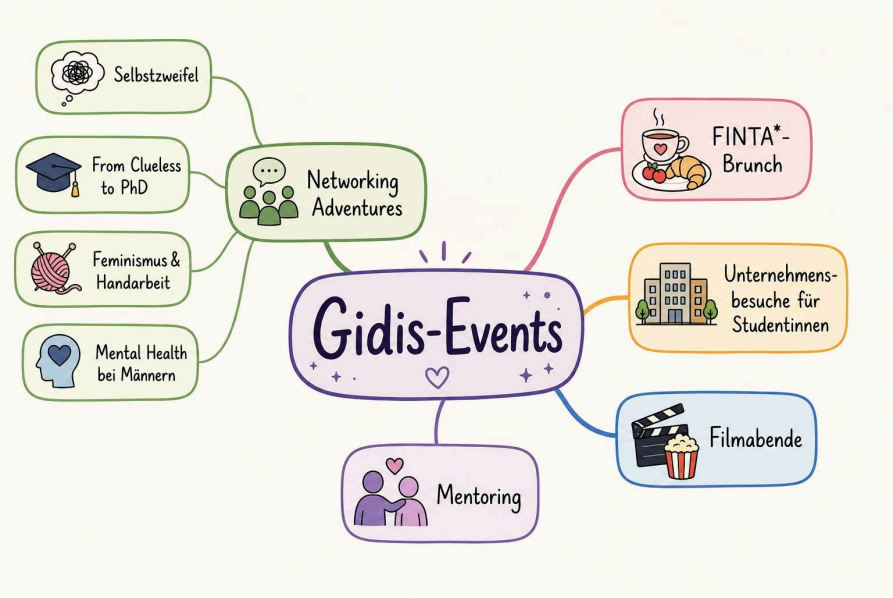
The computer science equality working group organizes a mentoring program for students from structurally disadvantaged groups. In the first round, which starts this winter semester, the focus is on supporting female and gender-diverse students.

Our goal is to provide support at the start of studies and in career planning, to create role models, to provide opportunities to learn from the experiences of others, to support professional and personal development, and to promote networking within the institute. The program is planned as 1-to-1 mentoring, with mentors and mentees meeting for several one-on-one sessions during the course of the program. In addition, there will be several joint meetings with all mentees and mentors, where we will receive topic-specific input from qualified speakers. Small groups of mentees, accompanied by

a mentor, are planned to attend academic conferences with a focus on computer science. These conference visits provide participants with the opportunity to gain insights into current research, connect with the wider academic community, and expand their professional networks. A program cycle begins with an onboarding session and ends with a joint evening in a relaxed atmosphere. The program runs for 9 months. If you are interested, simply visit our website, where you will also find a registration form.

Links

Website `informatik.uni-bonn.de/en/institute/equality`
Mailing List `tinyurl.com/gidis-ml`
Discord-Channel `tinyurl.com/gidis-discord`
Instagram `tinyurl.com/gidis-insta`
Equalender `tinyurl.com/equalendar`
AStA department for equality `tinyurl.com/asta-geschlechterg-erechtigkeit`
Reporting and counseling centers
`tinyurl.com/melde-und-beratungsstellen`



The Institute of Computer Science

If you study the master Computer Science or Cyber Security, then apart from the lecture hall building the Institute of Computer Science is the building in which most of your study events will take place. In addition to seminar rooms it contains the offices of professors, PhD students, the (technical) administration for computer science and much more. The Institute of Computer Science is organized in eight departments. Each of them is led by a professor and has a rough research focus. Within each department there are smaller research groups, each again led by a professor and more specialized on a particular part of the field (see table below).

If you are studying in the Master of Computer Science program, in order to start a Master Thesis you will have to find a supervisor from the research group that is most closely related to your topic. It is good to familiarize yourself with the different research groups early on, so you can try to focus your choice of lectures, seminars and labs on the department that you are the most interested in.

Sometimes there is the chance to be hired as a student assistant (WHF, wissenschaftliche Hilfskraft) by a department of the institute, usually as tutor for exercise groups or as programmer. The pay is €16,47 per hour at the moment, which is not as much as for most other programming jobs, in exchange your workplace is close by, and you gain practical experience related to your studies. Besides the employer will be more considerate about your studies, so you can adjust work hours to your lecture schedule.

Departments & Research Groups

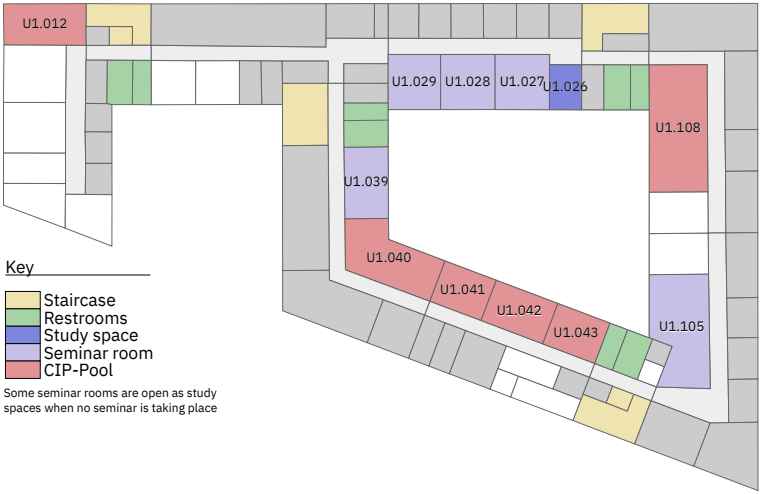
Informatik I Computational Analytics	Prof. Dr. Petra Mutzel	Computational Analytics
	Prof. Dr. Estella Suarez	High Performace Computing
Informatik II Visual Computing	Prof. Dr. Reinhard Klein	Computer Graphics
	Prof. Dr. Matthias B. Hullin	Digital Material Appearance
	Prof. Dr. Thomas Schultz	Visualization and Medical Image Analysis
	Prof. Dr. Florian Bernard	Learning and Optimization for Visual Computing
	Prof. Dr. Zorah Lähner	Geometry in Machine Learning
	Prof. Dr. Vahid Babaei	AI aided Scientific Discovery Group

Informatik III Information Systems and Artificial Intelligence	Prof. Dr. Stefan Wrobel	ML AI Lab
	Prof. Dr. Christian Bauckhage	ML AI Lab
	Prof. Dr. Jürgen Gall	Computer Vision
	Prof. Dr. Elena Demidova	Data Science & Intelligent Systems
Informatik IV Security and Networked Systems	Prof. Dr. Michael Meier	IT Security
	Prof. Dr. Peter Martini	Communication Systems
	Prof. Dr. Matthew Smith	Behavioural Security
	Prof. Dr. Frank Kurth	Audio Signal Processing
	Prof. Dr. Wolfgang Koch	Sensor Data & Information Fusion
	Prof. Dr. Christoph Strelen	Operating Systems & Stochastic Modelling
Informatik V Algorithms and Complexity	Prof. Dr. Anne Driemel	Algorithmic Geometry
	Prof. Dr. Thomas Kesselheim	Algorithmic Game Theory & Optimization under Uncertainty
	Prof. Dr. Heiko Röglin	Analysis of Algorithms Beyond the Worst Case & Cluster Analysis
Informatik VI Intelligent Systems and Robotics	Prof. Dr. Sven Behnke	Autonomous Intelligent Systems
	Prof. Dr. Maren Bennewitz	Humanoid Robots
	Junior Professor Dr. Herrmann Blum	Robot Perception and Learning
Informatik VII Language Technologies	Prof. Dr. Lucie Flek	Data Science and Language Technologies Group
	Prof. Dr. Rafet Sifa	Applied Machine Learning Lab
Informatik VIII Computational Life & Health	Prof. Dr. Dr. Dominik Bach	Hertz Chair for Artificial Intelligence and Neuroscience (CAIAN)
	Prof. Dr. Martin Hofmann-Apitius	Bioinformatics Group
	Prof. Dr. Stephan Jonas	Institut für Digitale Medizin
	Prof. Dr. rer. nat. Björn Krüger	Personalized Digital Health and Telemedicine
	Prof. Dr. Heiko Schoof	Crop Bioinformatics

Map: Computer Science Centre



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Friedrich-Hirzebruch-Allee 8

Course of Study

In your masters degree you will have four different kinds of modules. Those modules are lectures, seminars, labs and your master thesis.

Lectures

Lectures usually take place in an auditorium. Smaller lectures may also be given in seminar rooms.

They usually work like this: The lecturer stands in the front and talks. The students mostly listen, but may (and should!) ask questions at any time. This is important, because if you cannot follow what the lecturer is telling you, listening is rather pointless. Don't worry about embarrassing yourself: Chances are that if you don't understand it, there likely are other students who don't fully understand either, but are too shy to ask.

The lectures also prepare you for the exercise sheets. Usually you have an exercise sheet in each lecture every week, though some lectures might have larger ones every other week or even fewer. They are accompanied by exercise groups, which also will usually be held weekly. Regular attendance in both the lectures and the exercises is highly recommended, though there are no mandatory attendance rules for either.

In most lectures you have to earn at least 50 % of the points of the exercises in order to be admitted to the exams. The exact conditions are published by the examination office before the beginning of the semester and can be found in the current module handbook. Many lectures also allow you to complete the exercises in groups of two or three students. Completing these exercises prepares you for the exam at the end of the semester, but it is not relevant to your grade; at most, they may give you bonus points in your exam. We usually do not hold midterm exams.

Seminars

Seminars will advance your knowledge of scientific work. The goal is to learn how to research a specific topic, how to then write it up in a paper and give a presentation. You must have at least one seminar in your course emphasis area/ main track (if you study Computer Science) or take the Seminar Cyber Security (if you study Cyber Security). If you study Computer Science or Cyber Security you can select at most two seminars. If you study Artificial Intelligence you must select exactly one seminar. In both cases the accompanying seminar of the master thesis is not counted.

The seminars are offered in many areas of research. You should choose one that you find interesting and where you think that you could write a masters thesis about. Another part of the seminar may be reviewing and critiquing other students' papers, and usually you also listen to the other students' presentations, similar to a small conference.

Labs

Whereas the seminars teach you the theoretical aspects of scientific work, labs will teach you the practical part. Usually over the course of one semester, either alone or in a small group, you will try to implement a small project. This comprises researching related projects, deciding on what you want to do, planning the implementation, executing it and, finally, writing a paper as well as giving a presentation, similar to your seminar.

Due to implementing a project being more time-consuming than just theoretical research, each lab is worth nine credit points. You also have to have one lab in your main track (if you study computer science) or take the lab Cyber Security (if you study Cyber Security). If you study Computer Science or Cyber Security you may select up to two labs. If you study Artificial Intelligence you must select exactly one lab.

Master's Thesis

Usually in your last semester, you start working on your master's thesis. Together with the master's thesis you also take the module Master Seminar, which for all intends and purposes you may think of as just a part of the master's thesis. As the high number of 30 + 2 credit points suggest, the amount of work alone is enough to fill a whole semester. Having another lecture while working on your thesis may work for you, but you should really try to reduce the number of other modules besides your thesis as much as possible, so try to complete all other parts of your degree before the last semester.

During the course of your study, you will probably find out what field of research interests you the most and then select more modules from that area. Ideally that area is also what your seminar and lab focused on, as this can already put you into contact with supervisors for your thesis and can work as a great starting point for a thesis topic. In order to start a thesis, you have to find a supervisor for it. That supervisor (or if they are a PHD-student, the professor they work for) will usually serve as your first examiner. The second examiner will usually be a professor or post-doc working in a related field. They will be your main contact, and

working closely together with them will certainly make it easier and will probably result in a better grade.

After you have worked out the exact topic of your thesis, your supervisor will submit it to the examination office. The topic is usually accepted. The form to submit a topic also has the start date on it. This is the start date the examination office will refer to, so you can already start working on the thesis before you get the official green light.

The exact procedure of your thesis will vary due to your topic, the work group and your own choices. If you have questions, you should contact your supervisor. They all have done their own theses and are usually involved in active research, so they can tell you what they have experienced and how you should proceed.

After submitting your thesis and giving your final presentation, if you have completed all the needed modules, have 120 credit points and have passed your thesis, you are finished! You can now call yourself a "Master of Science"! Congratulations!

Reading all this, it may seem as if the goal, your degree, is so far out of reach. But you should not be afraid; every great change comes in small steps. And during your journey towards this goal, we will support and help you, should you ever have problems or questions!

Course of Studies: Computer Sciences

As most of you are probably already familiar with, the M.Sc. Computer Science program is composed of modules you need to pass in order to get your degree. With each module, you will earn a certain amount of credit points. In order to earn your master's degree, you will have to earn 120 credit points. Usually small lectures are worth six credit points and large lectures are worth nine. Through each lab, you will be able to receive nine credit points, seminars are worth four credit points, and your master thesis is worth 30+2 credit points.

Each credit point should be equal to 30 hours of work. This varies with each student, but it should give you a rough estimate of the time each course should take up in your schedule. The module handbook specifies how much of this time is spent in attendance and how much time you spend on your own.

Each semester, you are encouraged to earn around 30 credit points; this way, you would earn 120 credit points in four semesters, which is the recommended time of study. Both the four semesters and the 30

credit points per semester are only recommendations. You can earn as much or little credit points as you want, but of course, earning fewer credit points than recommended will increase your study time.

Each module finishes with some form of exam. For lectures, this usually takes the form of a written or oral exam. Seminars and labs finish with a paper as well as a presentation, both of which are graded. The thesis also closes with a presentation that is worth 2 credit points; the other 30 credit points are awarded for your thesis.

Note that you are not limited to selecting exactly 120 credit points of modules. Only up to 120 credit points can count for your final grades and these modules must meet the criteria outlined below. If you have selected modules beyond 120 credit points you can send an application form to the examination office to have up to 15 credit points of additional modules be listed on your transcript, however those will not count towards your grade. Any further modules you may have selected will not appear on your transcript. Do note that once you have met the criteria for a completed masters degree your masters studies will end that semester, so you can't just go on picking new modules forever.

Tracks

Now you know: To get your masters degree, you will need to collect 120 credit points. Your thesis and corresponding seminar will grant you 32 CP, the mandatory lab and seminar will add 9 and 4 CP. This leaves 75 CP to be made in whichever courses you find interesting. But wait! There are some rules on how to choose. The course selection of the Computer Science program is divided in four **tracks**: the Algorithmics track, the Graphic, Vision and Audio track, the Information and Communication Management track and the Intelligent Systems track. Each track offers a variety of lectures, labs and seminars that fit the topic. During your degree, you will have to choose a **main track**. This is a choice you make for yourself and that you don't have to tell anyone else, but it shapes the requirements for modules you have to select to complete your study. At least one lab and one seminar as well as a minimum of 18 additional CP has to come from your main track. You also have to have at least 27 CP outside of your main track and in at least two of the other tracks you need to have at least 6 CP. The remaining 30 CP can be freely distributed over all tracks. You may also pick at most two labs and seminars as part of your masters. Note that your thesis does not have to re-

late to your main track. You can take a look at some examples of courses of study on page 24.

How to Study

Here at the Institute of Computer Science, you don't have to sign up for lectures to attend them. You can simply attend the first lecture and get all necessary information there. The lecturer will tell you the modalities of the lecture, such as how to enroll in exercise groups, how to access the course materials and what you have to do in order to be admitted to the exam. You can find the lectures that are held each semester by looking into the course catalog in BASIS (page 48).

For a small number of lectures the capacity of the lecture is below the amount of students that want to attend the lecture. The examination board announces these lectures ahead of the semester and you have to sign up for these before the lectures start. The selection favours students who must attend the lecture as a compulsory lecture, so you don't need to worry about your studies getting delayed unnecessarily.

For labs and seminars, you usually have to apply before the start of the semester. Every research group handles this a bit differently, so take a look at the BASIS entry to find out how to apply. If there's no entry in BASIS, don't be afraid to ask the research group.

Exam Application

To be able to take the exams at the end of the term, you will have to fulfill the requirements published by in the module handbook, and you have to apply for the exams on BASIS, our digital platform for course overview and exam application.

The applications are usually opened around mid-semester. You have to register for each exercise that you intend to pass. At the same time, you can also register for the first exam of every module. You can apply for as many or as few exams as you like, and you can step down from an exam until one week before without any explanations needed. Due to the nature of labs and seminars, you can only step down from them until you are assigned a topic.

Every semester, two exams are offered for every module. If you pass the first one, you can use the second one for your improvement-exam (see *Bad Grade*), but else, you do not have to take it. If you did not pass or did not attend the first one, you can go to the second one. You can also take just the second exam, though you still have to register for the exercises. If you forget that, you

cannot take the exam as your admission cannot be entered into BASIS.

It is possible to get a disadvantage compensation for written exams (e.g. for dyslexia) in the form of a time extension. You can check with the examination office if you are eligible. If you fall sick and can't take an exam, you have to get a doctor's note saying that you are unable to take the exam and hand it in within three days to the examination office. With that, you will not lose an attempt for the exam.

You Shall (not) pass!?

You took your written exam, you have a great feeling about it, but then BASIS shows a grade you weren't expecting. Don't worry, there are things you can do. Whether you failed or pass, the first thing you should do is go to the post-exam review. There you can have a look at your exam, see where you went wrong and ask the tutors and lecturer about it. Sometimes you can even find an error in the correction and get the points that are due to you. Most of the time, the lecturer will organize a date for everyone, but if you can't make it, don't hesitate to ask for a different date. If the lecturer does not organize a central date and also does not want to schedule individually with you, you can always get your post-exam review at the examination office.

To attend a post-exam review you usually need your passport (or something comparable) and possibly also access to your digital student ID. In case you are doing the post-exam review for another student you also have to bring written and signed conformation that you are to attend the post-exam-review for that student. If you plan to send someone in your stead it is also nice to send a mail to the lecturer beforehand informing them that someone will come instead of you. In case you aren't too secure in the material it is also usually possible to bring another person with you to the review to review the exam together.

Within a post-exam review it is always good to first check if the points have been added up properly. They usually are, however on the rare occasion that some (sub)exercise was missed you could have a significantly better grade than expected. After that you can check where points were deducted and if anything is unclear to you ask what you did wrong. If you are very close to getting the next best grade it can sometimes be worth it to discuss if you lost any points unjustly.

Failed Exam

Alright, you know where you went wrong, but the exam is still failed. If you failed the first, you can take the second exam without applying again. And even if you fail that one too: Each exam can be taken 3 times until you terminally fail it. This means that you can take each exam 3 times. And *even if* you fail something 3 times, that doesn't mean the end of the program for you. It does mean you can't pass this course anymore, but as long as there are enough other courses to finish your degree, you can continue. Even labs and seminars can be taken up to three times before terminally failing.



Cardboard version of the "Stanford Bunny" of department II in front of the Institute's logo. Copyright: Volker Lannert / Uni Bonn

Bad Grade

You passed your exam with a grade that you aren't happy with and the post-exam review brought insight, but no missing points. No problem, you can fix that! For three of the courses you pass during your regular study time (4 semesters if you study full time, 6 for part time), you may be able to apply for an improvement-exam. For this to be possible you must pass the exam in the first exam period that semester. You can then apply for the second exam in that same semester and will recieve the better of the two grades.

Note that you can only improve grades of written or oral exams. Labs, seminars and the thesis cannot be improved.

With this information, you should be able to get through your exams. A warning at the end: If you are caught cheating in an exam, you automatically fail it. Depending on the severity of you cheating, you might even be exmatriculated and have to pay a fine of up to 50,000 €, so don't cheat.

Course of Studies: Examples

Since the Computer Science program doesn't have any mandatory courses and no specific order in which to take the elective courses, we present some example courses of study. They are mostly based on real courses of study from students that finished their masters (and as such are not always perfectly 120 CP), but as some modules no longer exist we had to patch things up a bit. These are by no means the "right" way to study, they should only illustrate what a degree here in Bonn could look like. Some of them aren't complete since the students are still working towards their degree.

To save some space, we abbreviated the tracks: Algorithmics → AL, Graphic, Vision and Audio → GVA, Information an Communication Management → ICM and Intelligent Systems → IS.

Example 1: Algorithmics

IS Technical Neural Networks	6 CP
IS Seminar AI Ethics	4 CP
IS Foundations of Data Science	9 CP
GVA Foundations of Audio Signal Processing	6 CP
AL Cryptography	9 CP
IS Artificial Life	6 CP
GVA Computer Animation	9 CP
AL Algorithmic Game Theory	9 CP
AL Discrete and Computational Geometry	9 CP
AL Seminar Algorithmic Game Theory	4 CP
AL Algorithms and Uncertainty	9 CP
AL Lab Advanced Algorithms	9 CP
AL Thesis	32 CP

Example 2: Algorithmics

IS Technical Neural Networks	6 CP
AL Algorithms for Data Analysis	6 CP
ICM Mobile Communication	6 CP
AL Combinatorial Optimization	9 CP
ICM Practical Challenges in Human Factors of Security and Privacy	6 CP
IS Autonomous Mobile Systems	6 CP
AL Binary Linear and Quadratic Optimization	9 CP
AL Lab Combinatorial Algorithms	9 CP
AL Cryptography	9 CP
ICM Applied Binary Exploitation	6 CP
IS Foundations of Data Science	9 CP
AL HPC modern Architectures and Trends	6 CP
AL Seminar Computational Analytics	4 CP
AL Thesis	32 CP

Example 3: Intelligent Systems

AL Cryptography	9 CP
IS Learning from Non-Standard Data	6 CP
ICM Mobile Communication	6 CP
IS Principles of Machine Learning	6 CP
IS Advanced Learning Systems	6 CP
GVA Advanced Topics in Computer Graphics I	9 CP
ICM IT Security	6 CP
ICM Practical Challenges in Human Factors of Security and Privacy	6 CP
ICM Side Channel Attacks	6 CP
IS Artificial Life	6 CP
IS Humanoid Robotics	6 CP
GVA Computational Photography	6 CP
IS Seminar Humanoid Robots	4 CP
IS Lab Sensor Data Interpretation	9 CP
IS Technical Neural Nets	6 CP
ICM Advanced Computer Forensics	6 CP
IS Thesis	32 CP

Example 4: Computer Graphic and Audio

GVA Computer Vision	9 CP
AL Discrete and Computational Geometry	9 CP
GVA Computational Photography	6 CP
GVA Deep learning for Visual Recognition	6 CP
IS Artificial Life	6 CP
GVA Advanced Topics in Computer Graphics I	9 CP
IS Foundations of Data Science	9 CP
GVA Video Analytics	6 CP
GVA Visual Data Analysis	9 CP
GVA Advanced Topics in Computer Graphics II	9 CP
ICM Introduction to Sensor Data Fusion	6 CP
GVA Lab Vision	9 CP
GVA Seminar Vision	4 CP
GVA Thesis	32 CP

Example 5: Information an Communication Management

ICM Foundations of Audio Signal Processing	6 CP
IS Principles of Machine Learning	6 CP
IS Secure Software Engineering	6 CP
ICM Applied Binary Exploitation	6 CP
ICM IT-Security	6 CP
ICM Mobile Communication	6 CP
ICM Lab IT Security	9 CP
ICM Seminar Selected Topics in IT Security	4 CP
AL Cryptography	9 CP
ICM Introduction to Sensor Data Fusion	6 CP
IS Technical Neural Nets	6 CP
IS Advanced Methods of Information Retrieval	6 CP
AL Introduction to High Performance Computing	6 CP
IS Side Channel Attacks	6 CP
ICM Thesis	32 CP

Example 6: Information an Communication Management

ICM Practical Challenges in Human Factors of Security and Privacy	6 CP
IS Artificial Life	6 CP
ICM Mobile Communication	6 CP
ICM IT Security	6 CP
ICM Malware Analysis	6 CP
ICM Array Signal and Multi-channel Processing	6 CP
ICM Applied Binary Exploitation	6 CP
IS Advanced Learning Systems	6 CP
ICM Lab IT Security	9 CP
GVA Advanced Topics in Computer Graphics I	9 CP
ICM Seminar Selected Topics in IT Security	4 CP
GVA Video Analytics	6 CP
IS Cognitive Robotics	6 CP
AL Algorithms for Data Analysis	6 CP
ICM Thesis	32 CP

Example 7: Computer Graphic and Audio

GVA Computational Photography	6 CP
IS Technical Neural Nets	6 CP
IS Artificial Life	6 CP
IS Foundations of Data Science	9 CP
GVA Advanced Topics in Computer Graphics 1	9 CP
AL Cryptography	9 CP
GVA Advanced Topics in Computer Graphics 2	9 CP
GVA Deep Learning for Visual Recognition	6 CP
GVA Advanced Deep Learning for Graphics	6 CP
GVA Lab Graphics	9 CP
GVA Seminar Graphics	4 CP
GVA Thesis	32 CP

Course of Studies: Cyber Security

As most of you are probably already familiar with, the M.Sc. Cyber Security program is composed of modules you need to pass in order to get your degree. With each module, you will earn a certain amount of credit points. In order to earn your master's degree, you will have to earn 120 credit points. Usually small lectures are worth six credit points and large lectures are worth nine. Through each lab, you will be able to receive nine credit points, seminars are worth four credit points, and your master thesis is worth 30+2 credit points.

Each credit point should be equal to 30 hours of work. This varies with each student, but it should give you a rough estimate of the time each course should take up in your schedule. The module handbook specifies how much of this time is spent in attendance and how much time you spend on your own.

Each semester, you are encouraged to earn around 30 credit points; this way, you would earn 120 credit points in four semesters, which is the recommended time of study. Both the four semesters and the 30 credit points per semester are only recommendations. You can earn as much or little credit points as you want, but of course, earning fewer credit points than recommended will increase your study time.

Each module finishes with some form of exam. For lectures, this usually takes the form of a written or oral exam. Seminars and labs finish with a paper as well as a presentation, both of which are graded. The thesis also closes with a presentation that is worth 2 credit points; the other 30 credit points are awarded for your thesis.

Note that you are not limited to selecting exactly 120 credit points of modules. Only up to 120 credit points can count for your final grades and these modules must meet the criteria outlined below. If you have selected modules beyond 120 credit points you can send an application form to the examination office to have up to 15 credit points of additional modules be listed on your transcript, however those will not count towards your grade. Any further modules you may have selected will not appear on your transcript. Do note that once you have met the criteria for a completed masters degree your masters studies will end that semester, so you can't just go on picking new modules forever.

Compulsory and Compulsory Elective Modules

Now you know: To get your masters degree, you will need to collect 120 credit points. These are split between the Compulsory and the Compulsory Elective modules, with the compulsory elective modules splitting up into multiple groups explained later. The compulsory modules are modules that must be selected to get the masters degree while the compulsory elective modules consist of pools of lectures that you need to select a certain number of credit points from.

Compulsory Modules

Currently the master Cyber Security has 4 (technically 5) compulsory modules that together make up 51 credit points. You must attend the lecture "IT Security" and complete one lab, one seminar and your masters thesis in Cyber Security. The master thesis technically splits into two modules, the actual thesis for 30 credit points and the master seminar accompanying the thesis for 2 credit points, however these two are always selected in tandem, so we usually talk of them as one module. While you must select all of these modules to finish the master Cyber Security, they have no explicit internal dependencies and you may select them in any order you like. However we recommend selecting the lab and seminar before the masters thesis, as they are good ways to check out if a certain area of Cyber Security is the right one for your masters thesis. Furthermore, it is officially recommended to take the lecture before the lab and seminar.

Compulsory Elective Modules

The compulsory elective modules make up the other 69 credit points of your master. They are split into three types of compulsory elective modules. For all three types there are lists of modules that you can select from.

There are the subject-bound compulsory elective modules which are again split into the subject-bound compulsory elective modules Cyber Security (from now on called compulsory elective modules Cyber Security) and the subject-bound compulsory elective modules Computer Science (from now on called compulsory elective modules Computer Science). The compulsory elective modules Cyber Security allow you to further specialize into different parts of Cyber Security while the compulsory elective modules Computer

Science allow you to learn more about other parts of Computer Science, such as computer graphics or theoretical Computer Science. Most subject-bound compulsory elective modules are also modules that students of the master Computer Science can select, and most modules that are part of the master Computer Science can be selected as compulsory elective modules. Do look out however, for example nearly all modules in the algorithmics track of the master Computer Science are inaccessible to students of the master Cyber Security. The full list of available compulsory elective modules can be found in the module handbook. The newest version is available via the website of the examination office which can be found under `informatik.uni-bonn.de/en/studies/examination-office/examination-office`. The module handbook also contains some example courses of study.

The non-subject-bound compulsory elective modules allow you to select modules from outside of Computer Science, such as mathematics, psychology, economics, geography, photogammetry, physics/astronomy or chemistry. These modules must be from masters studies in the respective areas, you may not select bachelor modules. The examination board may publish lists of “approved” modules, however to the best of our knowledge so far no such list has been published. Outside of such a list the examination board can allow modules on a case-by-case basis if the modules are not too close to modules of the subject-bound compulsory elective modules. So if there is a module in a different masters study that really interests you, contact the examination board if its possible to select it as part of your master Cyber Security.

While the compulsory elective modules offer a great deal of freedom in specializing your master, your selections are still bound by certain rules on how many credit points you can and must select in certain areas.

You must select at least 54 credit points of subject bound compulsory elective modules. Of these at least 24 credit points must be compulsory elective modules Cyber Security and at least 12 credit points must be compulsory elective modules Computer Science. Within the compulsory elective modules Computer Science you may select up to one lab and up to one seminar. You may also select up to 15 credit points in the non-subject-bound compulsory elective modules, but you are not required to select any module from another program at all.

How to Study

Here at the Institute of Computer Science, you don't have to sign up for lectures to attend them. You can simply attend the first lecture and get all necessary information there. The lecturer will tell you the modalities of the lecture, such as how to enroll in exercise groups, how to access the course materials and what you have to do in order to be admitted to the exam. You can find the lectures that are held each semester by looking into the course catalog in BASIS (page 48).

For a small number of lectures the capacity of the lecture is below the amount of students that want to attend the lecture. The examination board announces these lectures ahead of the semester and you have to sign up for these before the lectures start. The selection favours students who must attend the lecture as a compulsory lecture, so you don't need to worry about your studies getting delayed unnecessarily.

For labs and seminars, you usually have to apply before the start of the semester. Every research group handles this a bit differently, so take a look at the BASIS entry to find out how to apply. If there's no entry in BASIS, don't be afraid to ask the research group.

Exam Application

To be able to take the exams at the end of the term, you will have to fulfill the requirements published by in the module handbook, and you have to apply for the exams on BASIS, our digital platform for course overview and exam application.

The applications are usually opened around mid-semester. You have to register for each exercise that you intend to pass. At the same time, you can also register for the first exam of every module. You can apply for as many or as few exams as you like, and you can step down from an exam until one week before without any explanations needed. Due to the nature of labs and seminars, you can only step down from them until you are assigned a topic.

Every semester, two exams are offered for every module. If you pass the first one in a compulsory elective module, you can use the second one for your improvement-exam (see *Bad Grade*), but else, you do not have to take it. If you did not pass or did not attend the first one, you can go to the second one.

You can also take just the second exam, though you still have to register for the exercises. If you forget that, you cannot take the exam as your admission cannot be entered into BASIS.

It is possible to get a disadvantage compensation for written exams (e.g. for dyslexia) in the form of a time extension. You can check with the examination office if you are eligible. If you fall sick and can't take an exam, you have to get a doctor's note saying that you are unable to take the exam and hand it in within three days to the examination office. With that, you will not lose an attempt for the exam.

You Shall (not) pass!?

You took your written exam, you have a great feeling about it, but then BASIS shows a grade you weren't expecting. Don't worry, there are things you can do. Whether you failed or pass, the first thing you should do is go to the post-exam review. There you can have a look at your exam, see where you went wrong and ask the tutors and lecturer about it. Sometimes you can even find an error in the correction and get the points that you are owed. Most of the time, the lecturer will organize a date for everyone, but if you can't make it, don't hesitate to ask for a different date. If the lecturer does not organize a central date and also does not want to schedule individually with you, you can always get your post-exam review at the examination office.

To attend a post-exam review you usually need your passport (or something comparable) and possibly also access to your digital student ID. In case you are doing the post-exam review for another student you also have to bring written and signed conformation that you are to attend the post-exam-review for that student. If you plan to send someone in your stead it is also nice to email the lecturer beforehand informing them that someone will come instead of you. In case you aren't too secure in the material it is also usually possible to bring another person with you to the review to review the exam together.

Within a post-exam review it is always good to first check if the points have been added up properly. They usually are, however on the rare occasion that some (sub)exercise was missed you could have a significantly better grade than expected. After that you can check where points were deducted and if anything is unclear to you ask what you did wrong. If you are very close

to getting the next best grade it can sometimes be worth it to discuss if you lost any points unjustly.

Failed Exam

Alright, you know where you went wrong, but the exam is still failed. If you failed the first, you can take the second exam. And even if you fail that one too: Each exam can be taken 3 times until you terminally fail it. This means that you can take each exam 3 times.

If you fail an exam in a compulsory module 3 times you will be expelled from the master Cyber Security and will no longer be able to study a master of Cyber Security in Germany. The same happens if you fail your masters thesis twice. Don't worry, it is very rare that people get expelled. However if you are approaching your third attempt in any exam make sure you are prepared for it as best as you possibly can.

In contrast to this, if you fail an exam in an elective compulsory module 3 times, you have terminally failed that module and cannot attempt the exam again. However, if there are still enough other modules so that you can reach the credit point requirements for each section of the elective compulsory modules, you can simply continue your studies with different lectures.

Bad Grade

You passed your exam in an elective compulsory module with a grade that you aren't happy with and the post-exam review brought insight, but no missing points. No problem, you can fix that! For three of the courses you pass during your first three semesters, you may be able to apply for an improvement-exam. For this to be possible you must pass the exam in the first exam period that semester. You can then apply for the second exam in that same semester and will recieve the better of the two grades.

Note that you can only improve grades of written or oral exams. Labs, seminars and the thesis cannot be improved.

With this information, you should be able to get through your exams. A warning at the end: If you are caught cheating in an exam, you automatically fail it. Depending on the severity of your cheating, you might even be expelled and have to pay a fine of up to €50,000, so don't cheat.

Course of Studies: Artificial Intelligence

As most of you are probably already familiar with, the M.Sc. Artificial Intelligence program is composed of modules you need to pass in order to get your degree. With each module, you will earn a certain amount of credit points. In order to earn your master's degree, you will have to earn 120 credit points. Usually small lectures are worth six credit points and large lectures are worth nine. Through each lab, you will be able to receive nine credit points, seminars are worth four credit points, interdisciplinary projects are worth 10 credit points, and your master thesis is worth 30+2 credit points.

Each credit point should be equal to 30 hours of work. This varies with each student, but it should give you a rough estimate of the time each course should take up in your schedule. The module handbook specifies how much of this time is spent in attendance and how much time you spend on your own.

Each semester, you are encouraged to earn around 30 credit points; this way, you would earn 120 credit points in four semesters, which is the recommended time of study. Both the four semesters and the 30 credit points per semester are only recommendations. You can earn as much or little credit points as you want, but of course, earning fewer credit points than recommended will increase your study time.

Each module finishes with some form of exam. For lectures, this usually takes the form of a written or oral exam. Seminars and labs finish with a paper as well as a presentation, both of which are graded. The thesis also closes with a presentation that is worth 2 credit points; the other 30 credit points are awarded for your thesis.

Note that you are not limited to selecting exactly 120 credit points of modules. Only up to 120 credit points can count for your final grades and these modules must meet the criteria outlined below. If you have selected modules beyond 120 credit points you can send an application form to the examination office to have up to 15 credit points of additional modules be listed on your transcript, however those will not count towards your grade. Any further modules you may have selected will not appear on your transcript. Do note that once you have met the criteria for a completed masters degree your masters studies will end that semester, so you can't just go on picking new modules forever.

Compulsory Lectures

Within your master you must pass some compulsory lectures. Within the first semester you should attend the “Pribciples of Machine Learning” and “Principles of Deep Learning” lectures. Both wil award you 6 CP. These lectures lay the foundation for the more in depth AI and ML lectures. Most of your other lectures will assume you know their contents. However, you can attend many of the later lectures, even if you have not passed either of these yet. So you don’t need to halt your studies for a year if you are e.g. sick on the exam dates.

In addition to the two compulsory lectures you must also write a master thesis. Together with its accompanying seminar it will award you 32 CP.

Compulsory Elective Modules

With 44 CP in compulsory lectures, 76 CP credit points remain for elective modules. With these you get to choose from a large selection of modules. This way you can specialise in your favourite area of AI.

However, there are some constraints on your choice of modules. The compulsory elective modules are split into 4 areas:

Specialisation ($\geq$ 12 CP)

In specialisation you attend lectures from areas of computer science that are not AI related. In these lectures you can get an introduction to a research field so you can later attend modules on how to apply AI methods to it. It is recommended to pick some specialisation lectures in your first semester. That way you pick up the necessary knowledge for the advanced lectures you attend in the later semesters.

Advanced ($\geq$ 39 CP)

In advanced you are listening to advanced lectures on AI and ML. Some of these are pure AI, while others are about applying AI to areas that you learned about in your specialisation lectures. You must attend one lab and one seminar from the advanced modules. As most advanced lectures require some familiarity with AI foundations and sometimes contents from specialisation lectures, most are recommended for the second semester

and up. However there are also a few advanced modules that can be heard in the first semester without issue. Check the module handbook to see what preknowledge is recommended and/or required for a lecture.

Interdisciplinary Project ($=$ 10 CP)

In the interdisciplinary project you will apply your knowledge of AI into a research field outside of Computer Science, such as physics or agriculture. The interdisciplinary project (like a lab) is usually done with a small group of students over the course of a semester. It is completed with a presentation and usually a written report.

Ethical, Legal and Social Aspects ($\geq$ 4CP)

In ethical, legal and social aspects you will discuss the role of your studies in the social context. This usually takes the form of a seminar.

If you counted CP so far, you may have noticed that the requirements of the compulsory lectures only add up to 65 CP. Of the remaining CP at least 5 have to be in advanced or specialisation modules, so that in sum you have at least 56 CP in specialisation or advanced lectures. You are free to distribute the remaining 6 CP on the specialisation, advanced and ethical, legal and social aspects as you wish.

How to Study

Here at the Institute of Computer Science, you don't have to sign up for most lectures to attend them. You can simply attend the first lecture and get all necessary information there. The lecturer will tell you the modalities of the lecture, such as how to enroll in exercise groups, how to access the course materials and what you have to do in order to be admitted to the exam. You can find the lectures that are held each semester by looking into the course catalog in BASIS (page 48).

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Within a post-exam review it is always good to first check if the points have been added up properly. They usually are, however on the rare occasion that some (sub)exercise was missed you could have a significantly better grade than expected. After that you can check where points were deducted and if anything is unclear to you ask what you did wrong. If you are very close to getting the next best grade it can sometimes be worth it to discuss if you lost any points unjustly.

Failed Exam

Alright, you know where you went wrong, but the exam is still failed. If you failed the first, you can take the second exam without applying again. And even if you fail that one too: Each exam can be taken 3 times until you terminally fail it. This means that you can take each exam 3 times. And *even if* you fail something 3 times, that doesn't mean the end of the program for you. It does mean you can't pass this course anymore, but as long as there are enough other courses to finish your degree, you can continue. Even labs and seminars can be taken up to three times before terminally failing.

Bad Grade

You passed your exam with a grade that you aren't happy with and the post-exam review brought insight,

but no missing points. No problem, you can fix that! For three of the courses you pass during your regular study time (4 semesters in full time, 6 in part time), you may be able to apply for an improvement-exam. For this to be possible you must pass the exam in the first exam period that semester. You can then apply for the second exam in that same semester and will recieve the better of the two grades.

Note that you can only improve grades of written or oral exams. Labs, seminars and the thesis cannot be improved.

With this information, you should be able to get through your exams. A warning at the end: If you are caught cheating in an exam, you automatically fail it. Depending on the severity of you cheating, you might even be exmatriculated and have to pay a fine of up to €50,000, so don't cheat.

Master of Life Science Informatics

Note: The info in this article may be outdated. We currently do not have an LSI student active in the student body who could verify it for us. If you notice errors, please contact us at `inform@fachschaft.info` and we will fix it ASAP. Your help is much appreciated!

The M.Sc. Life Science Informatics is affiliated with the Bonn-Aachen International Center for Information Technology. Life Science Informatics is offered jointly by the University of Bonn and RWTH Aachen in cooperation with the Fraunhofer Institutes at Sankt Augustin near Bonn. The program combines the natural sciences with computer science and is taught in English.

Another difference to other degrees lies in the administration of the course. Most lectures aren't available on e-campus and the registration for exams and lectures is paper-based. Information is provided by the LSI exam office in time, so don't worry about that!

Due to the small group size, the mentoring is much more intensive than in degrees with 100 or 150 students!

The program's website provides a lot of information regarding the study course and administrative information as well (`b-it-center.de/b-it-programmes/msc-in-life-science-informatics/description`).

Lectures

There is a catalog of compulsory subjects that must be completed. From a selection of elective subjects, it must also be possible to accumulate a certain number of credit points over the entire course of study. Unlike other degree programs, the university provides a timetable for each semester, which includes the suggested division of subjects.

1. Semester

Mathematics for Life Scientists*	3 CP
Computer Science for Life Scientists*	9 CP
Bioinformatics I	3 CP
Biological Databases	6 CP
Biology and Chemistry for Life Scientists*	7 CP
LSI Tutorial (lab, optional)	6 CP
Optional Courses from the Module Catalog	* CP

**For students with a degree in Computer Science, "Mathematics for Life Scientists" and "Computer Science for Life Scientists" are optional subjects. For students with a degree in Life Sciences, "Biology and Chemistry for Life Scientists" is an optional subject. You may replace the modules optional for you with other modules from the module catalog.*

The LSI Tutorial is a programming tutorial that is meant to help students with a background in natural sciences to improve their programming skills. It starts at a very basic level and accompanies the Computer Science Lecture.

2. Semester

Visual Computing in the Life Sciences	6 CP
Molecular Modeling and Drug Design	6 CP
Biomedical Data Science and AI	6 CP
Programming Lab I	8 CP
Scientific Presentation I	4 CP

3. Semester

Programming Lab II	8 CP
Chemoinformatics	7 CP
Optional Courses from the Module Catalog	17 CP

4. Semester

Master thesis	30 CP

Studying at university

Anyone who'd like to get out of the house for a change faces a problem, because the chronic **shortage of study spaces** becomes particularly noticeable in the afternoons and during the exam period. That's why we've put together lots of tips to help you find a suitable study space for you and your friends.

Finding your way around

Can't find the room? Take a look at our **maps beginning on page 2**.

At the Computer Science Centre

At the Computer Science Centre, you'll find not only staff and tutorial sessions, but also study areas. These are spread across several rooms. In the upper part of the building, these include the foyer, the "SPaCE"[4] adjacent to the student body office, as well as room 1.127 and the corridor by room 2.111.

The **basement** is also popular, featuring the "Bring Your Own Device" room (BYOD for short, room U1.040) as well as the computer rooms U1.012, U1.041 to 43 and U1.108. You can find out how these rooms work in the "Tools and IT Services" section on page 44.

The **seminar rooms** in the basement (U1.027 to U1.029) may also be used as study rooms. However, this is only possible during the lecture-free period, as these rooms are almost constantly booked for tutorials during the week. The adjoining room, U1.026, is not only a dedicated study room but also houses the study support service for Bachelor's students.

All study rooms at a glance

- Foyer
- 0.020 ("SPaCE", with coffee machine and tea)
- 1.128
- 2.111 (in the corridor)
- U1.012 (with computers)

[4] Student Place for Coffee and Education

- U1.040 (“BYOD”, with printer)
- U1.041 to U1.043 (with computers)
- U1.108 (with computers)
- U1.026
- U1.027–029 (seminar rooms)

Please note the closing times. Unfortunately, you’re not allowed to study here after 7pm or on weekends.

Past exams

Wondering, what the exm might look like? Check out our collection of exams from past years, where fellow students have memorized the topics from their exams and written them down for you to find.

Your exam will probably not look exactly the same, but it helps to practice common exercise types or see, which topics are almost always covered.

To access the pdf collection, you need to be in the uni network via WiFi (eduroam) or VPN.

Want to give back to the community? Submit your own exam protocol to us via `protokolle@fachschaft.info`. This helps future students - and can win you free drinks. Why not ask your friends to write a protocol with you?

`altklausuren.fachschaft.info`

Library

Even though books play only a minor role in a computer science degree, libraries are still important. As well as useful services such as the technology lending scheme, there are also study areas that you can use every day from 8am to midnight — **including weekends**. It’s definitely worth taking a closer look around here.

The “Bonn University and State Library” (ULB for short in German) has two locations: the main library on Adenauerallee and the **MNL branch library** right next to the Computer Science Centre. You’ll find computer science textbooks mainly in the MNL, as the abbreviation stands for “Medicine,

Natural Sciences and Agriculture". In addition, there are also departments with their own libraries, such as the Mathematics Department Library in the Mathematics Centre.

To gain access to the libraries, you'll need a **library card**, which you can obtain using the application form (see link box). The card will be made available to you via the Uni Bonn App (see page 47).

If you're looking for a book or an academic paper, the **'bonnus' search portal** is a great help. Here you can search the ULB's collection and you'll be shown right away where in which library the book is available. If the ULB has the relevant licence, a digital version of the paper or book will also be linked directly. Please note that for some of the digital ressources, you will need to be in the uni network (WiFi or VPN) to gain access.

Links

1. `ulb.uni-bonn.de/en/using-the-library`
2. `ulb.uni-bonn.de/en/using-the-library/library-card-and-user-account`
3. `bonnus.ulb.uni-bonn.de`

Other spaces on campus

To ease the shortage of space, the Campo canteen (p. 65) in Poppelsdorf has also been converted into a study area: after lunch, the **dining room on the ground floor** remains open until 8pm. Wi-Fi and power sockets are available.

While you are on site: there are a few rickety metal tables and chairs on the upper floor of the **Lecture Hall Centre** . You'll also find study spaces in the buildings of other departments – ideal if you're currently taking a minor subject module there.

A little preview: During your time at university, the new "Teaching and Research Building" opposite the Lecture Hall Centre and the MNL will open. You can look forward to some new study spaces there.

Tools and IT-Services

Got a problem with the Uni-IT?

The IT-Helpdesk at HRZ provides help on topics such as Uni-ID (account), email, eduroam and VPN.
Opening hours: Monday - Thursday, 8.00 - 16.30, Friday 8.00-16.00
Mail: `info-hrz@uni-bonn.de`
Phone: 0228 / 73-2751
In Person: ground floor of HRZ, Wegelerstr. 6

Two different accounts

All students get a general account from the university, the **Uni-ID**. It will be your login for all centralized services, like BASIS (see page 48) and eCampus (see below). With this account you can manage your studies in general.

Account activation

After enrollment, you can download your credentials in the application system. That's the website you used for your digital enrollment process. On `basis.uni-bonn.de` you can log in with your "applicant account" you used during enrollment and download a pdf with the credentials of your permanent uni account. They will look a bit like this: "s23xabcd" and a random initial password.

To activate this account you have to enter them at GOsa² (`gosa.gosa.uni-bonn.de`), where you will set your own password - after that, the initial password will no longer work. We recommend you also add a private email address for quick password reset in the future.

On top of that, you get a **CS account**, which is needed for VPN (see TODO) and computer pools (also called CIP-Pools, see next page).

To apply for one you have to follow the instructions here `gsg.informatik.uni-bonn.de/doku.php?id=en:accounts:students:manage`.

With this account you get access to a few services specific to computer science.

eCampus

The university hosts a central eLearning platform called eCampus, where lecturers can upload all relevant data for their courses, including slides, exercise sheets, etc. Often you will even hand in your finished exercises through uploads to the eCampus system.

Many CS lecturers prefer using their own homepage instead. You will then be able to either find a link to their page in the eCampus course or it will be provided during the first lecture. **Important**: For many of those sites, slide downloads will be password secured. Be sure to either take note of that password during the first lecture or get it from fellow students at the beginning of the semester.

Your email address

Your uni-account comes with an email account. The address is `s23xabcd@uni-bonn.de` with your Uni-ID respectively. We suggest checking this inbox frequently, as you will receive official information from the uni there.

To read your email in a browser go to `email.uni-bonn.de/`. You can also add it to clients like Thunderbird or a smartphone app. For this, please make sure your client does not save login-data in a cloud (see `hrz.uni-bonn.de/en/news/abruf-durch-unzulaessige-e-mail-clients-gesperrt` for further info). When setting up your client, in addition to your email address and password, you often have to add additional info for it to work (Advanced Setup). Below we have created an overview of frequently required fields for quick access.

	Incoming Server	**Outgoing Server**
Protocol:	IMAP	SMTP
Hostname:	`email.uni-bonn.de`	
Port:	993	465
name varies	SSL/TLS (*Apple: SSL*)	
Authentification:	Password normal / No password encryption	

A step-by-step guide for different OSes and clients can be found here: `hrz.uni-bonn.de/en/all-services/e-mail-calender-contacts/e-mail` (only available when in uni wifi or via VPN).

By the way: If you do not like your Uni-ID, you can set up to two aliases in GOsa². All emails to those aliases will be delivered to your inbox as well.

TVS - exercise assigning system

A lot of lecturers at CS use TVS, a system that helps assigning students to excercise groups. At `tvs.cs.uni-bonn.de` you can register using your matriculation number and then pick your preferences for the exercise timeslots (separately for each course). The system will automatically create a distribution, meeting as many preferences as it can, while making sure you won't get the same time slot for two different courses. In some courses you might be able to form small groups in advance that share the same preferences and will be assigned together. This way you can assure you and your study group will be in the same exercise group.

Internet access: WLAN here, WLAN there

One of the most frequent questions is: How can I access the web on campus?

First you will of course need a WLAN (or Wi-Fi) connection. The networks have different names, depending on the location: bonnet, bonnet-stw, eduroam, eduroam-stw, and eduroam-math are few of the common ones.

Some of these are open, unencrypted access points, which everyone is allowed to connect to. However, this does not automatically give you an internet connection. For that, you will need a VPN client. (see next section)

An exception to that are the eduroam networks. These are encrypted with WPA Enterprise. To connect to them you have to log in with your uni account, but do not need a VPN client. (see page 50)

Uni Bonn App

The Uni Bonn App replaces a physical student ID and public transport ticket. More about the ticket on page 57.

How do I install the app?

You can find the app in the Play Store or Apple App Store by searching for “Uni Bonn App” or you can just scan one of these QR-codes:

Google Playstore

App Store

How can I use the app?

Once you’ve downloaded the app and opened it, you have to use the hamburger menu (three lines) in the top left corner and choose the option “Login” in the sidebar. Log in with your Uni-ID (**WITHOUT** `@uni-bonn.de`) and password. After successful login, you may want to set the language to English through the hamburger menu under Settings (Einstellungen).

Known Bug: Sometimes the app may log you out randomly and tell you to reauthenticate. If that happens, just log in again as described above.

Features

Home Here you will find many useful links, for example to the Studierendenwerk. On top, university news will be displayed here.

Canteen Here you can view the canteen (aka. mensa, see page 65) menu for the coming week. For the canteen near the CS building, set the location to “Mensa Poppelsdorf CAMPO”at the top of the screen.

Library After creating a library card on the website of the ULB (`ulb.uni-bonn.de/en/using-the-library/library-card-and-user-account`) you can log in with your library account here to add your digital library card to the app.

Wallet The wallet displays your public transport ticket, student ID and library card.

BASIS – Planer for your studies

BASIS (`basis.uni-bonn.de`) is a website that is important for all students. It does not only include the course overview, but is also used to apply for exams and view the results. Let's take a closer look at it!

To log in to BASIS, you use your Uni-ID and the associated password (see page 44). You might want to switch the language to English (if it isn't already) on the top left corner.

If you haven't activated your Uni-ID, choose the option "Applicants Login". If you have activated your Uni-ID, choose "Students, employees & lecturers Login". You will be directed to another website, where you need to log in with your Uni-ID and password. After succesfully logging in, you will see your personal dashboard. On the right, you can find a download of your **certificates of studies**, on the left some shortcuts to useful functions. You can fully navigate the site using the menu opened by the Hamburger button. We'll now mention the most important functionality.

My studies

Here you can register for lectures, tutorials and exams if needed and can take a look at your grades.

Study planner This function is chaotic and not yet matured. We recommend you take a look at the official module plan of the institute's website.

Term groups CS students don't need to worry about these.

Schedule Here you can see a time table of your enrollments. Because you don't need to register for lectures - only for exams and tutorials - you are better off making your own time table.

Show my enrollments This shows all your enrollments and registrations after you have taken them.

My Achievements After you have taken exams, you can find whether you have passed and your grades here, as well as your credits.

Register for examinations This function is the one and only official place where you register and deregister to/from exams. No other form of registration (emails, eCampus, talking to your professor) counts. Keep in mind

the deadlines for exam registrations, you will be informed of them via email in time. You can deregister from exams until 7 days before the exam.

Study service If you ever need certificates, information about pending payments or your account as well as payment deadlines, this page shows all the relevant information. You can also change contact information here.

Course plan On overview of all courses offered this/coming semester that can be taken by you.

Studies offered

This shows all courses and lectures offered to you, as well as a way to show for courses uni-wide and links to module plans.

Application

If you want to change your studies, apply for double-studies, etc. this is the place to manage all of it. Some of the functionality is only visible during application periods.

Service

Personal settings Here you can change information for officials of the University to reach you under. If you move or change your phone number, make sure to change this information. Even though most communication is digital, some of it is not.

Requests Here you can find official requests such as exmatriculation, sabbaticals/vacations or changing your **name or legal gender identity**, for example by marriage or personal choice. This request is also possible **before** a change in your passport via the Selbstbestimmungsgesetz (law of self-determination), as long as you have a dgti-Ergänzungsausweis (supplemental identification card). It may be possible you'll have to make these changes again with Study Services.

How to build your own schedule

Basis has a built-in function to construct a time-table, but we do not recommend you use it. Instead, before the beginning of the next semester, choose courses you would like to take through the module planner and register for tutorials during the first week of lectures (this is internal to the lecture and not done via basis). After you have gained a tutorial slot, you could correct your time table to get rid of doublings.

You do not need to regiter to lectures to be able to attend them. So during the first week you could visit the first lectures of a lot of courses and then choose your favourites for the semester afterwards.

Keep in mind that being registered for a tutorial and handing in solutions to exercises does not mean that you are registered for the exam yet!

Questions regarding BASIS

If you have questions regarding BASIS, you can of course always ask us, the student body. In many cases, we will however refer you to the technical support for BASIS at `info-hrz@uni-bonn.de` or the BASIS coordinator of Computer Science at `pos@informatik.uni-bonn.de`, so you can also contact them directly. There is also a page on the institute's website regarding frequently asked questions about exam registrations, make sure to read it thoroughly: `informatik.uni-bonn.de/en/studies/examination-office/examination-office#pruefungen`

eduroam

(Education Roaming) is an originally European, now worldwide initiative. Eduroam gives staff and students of participating universities and organisations internet access via WLAN at all of these facilities.

Where can I use it?

You can connect to the eduroam WLAN access points at all participating facilities. Those usually have the network name (ESSID) "eduroam" or contain that word and a specification, like "eduroam-stw" for those hosted by the student administration.

How does it work?

First, you should go to `cat.eduroam.org`. There, choose the university of Bonn as your organisation and download the confuguration relevant for your OS. The site also has some instructions, but we will also go over them here.

You will need your Uni-ID for this (see page 44).

Android From the PlayStore (or as `.apk`) install the app getEduroam (Android 8 and higher) or EduroamCAT (Android 7 and lower). In the app, choose Universität Bonn, then enter your Uni-ID and password.

Apple Devices Download the configuration file and confirm. In settings, search for something called "Profiles" or "VPN and certificates". Install the eduroam certificate and enter your Uni-ID, (with `@uni-bonn.de` at the end) and password *multiple times in a row,* same every time.

Windows Download the configuration tool and open it. Enter your Uni-ID and password. On first connection, Windows Security might prompt you to enter a user and password again, for that use your Windows user and password, not your Uni-ID.

Linux Download the eduroam python script. Open a Terminal and enter this command: `$ python PathToCAT/eduroam-linux-Universitat_Bonn.py` Enter your Uni-ID and password when prompted.

Caution! Some Linux systems throw an error, saying they are missing `wpasupplicant`. *Do not proceed* in this case or your password will be saved unencrypted! Instead, go to the IT-Helpdesk (see page 44), they have a different script with a workaround.

Alternative: Manual Setup If the above tools fail, you can set up eduroam manually. This is not a recommended method though.

For this, you need the matching CA certificate. You can download it here: `pki.pca.dfn.de/eduroam-ca/pub/cacert/chain.pem`

Copy the parameters below into your network manager. You might have to change eduroam to `eduroam-stw` (cafeteria) oder `eduroam-math` (maths center).

SSID	`eduroam`
Sicherheit	WPA2 Enterprise
EAP-Methode	TTLS

Phase 2 Authent.	PAP
Zertifikat	`chain.pem`
Anonyme Identität	`anonymous@uni-bonn.de`
Identität	`<Uni-ID>@uni-bonn.de`
Passwort	matching your Uni-ID
Domain	`rhrz.uni-bonn.de`

What if it doesn't work?

In case that you are having trouble setting up your eduroam access, you can find more detailed instructions and useful tips on the HRZ website: `hrz.uni-bonn.de/en/all-services/internet-network-access/wifi-eduroam`

If it still does not work, come by the student body office or contact the IT-Helpdesk (see page 44).

sciebo - Campus Cloud

Sciebo (from SCIEnce and BOx) is a non-commercial cloud storage service (similar to Dropbox or Google Drive) for research, studying and teaching.

It is operated by universities and receives funds from the NRW government, with an operator's guarantee that there are no commercial interests. With locations in NRW exclusively, sciebo is subject to the strict German directives on data protection and data security.

Every student and staff member of the participating universities receives 30 GB of storage space. You can share your data with other sciebo users or via a link with external people.

Create a sciebo account

To create a sciebo account, go to `sciebo.de` and register by picking "Universität Bonn" as your organisation, log in with your Uni-ID (`s12xabcd`, see page 44) and matching password once. Then choose a sciebo password. This can (and should) differ from the one for your Uni-ID. From now on you can log into sciebo with that new password, using `<your Uni-ID>@uni-bonn.de` as your username.

The account has to be renewed once a year. You will receive an email asking you to confirm that you still study at Uni Bonn.

Using sciebo

There are multiple ways to use sciebo:

Web interface The easiest way to use sciebo is via your browser. Sciebo offers a web interface, which can be found at `uni-bonn.sciebo.de`. Just log in with the account you just created.

sciebo via a client Sciebo can be used for example through the nextcloud-Client for Windows, MacOS and Linux. You can find downloads at `sciebo.de` or using your favourite package manager. In addition to that, sciebo can be mapped as a network drive via WebDAV.

Sharing files or folders with others

If you are using sciebo in a browser you can go to fileview and click on the symbol <. There are two options: Either you share the file with a specific Uni-ID (the other person must have a sciebo account) or via a link. In the latter case the other person does not need a sciebo account, everyone with the link will be able to access the file(s). Don't worry though, you can put a password and/or expiry date on the link.

Editing documents in browser

When using sciebo in browser you can edit documents, presentations or spreadsheets from Microsoft Office or Libre Office directly in browser. In theory you can also work simultaneously with other users in this way, but the features are rather minimalistic. For projects where you need to work in real-time with you fellow students on a file we recommend using products specialized for that instead, the sciebo editor is just not technologically mature enough yet.

Links

1. `sciebo.de/en/index.html`
2. `docs.sciebo.de/en/docs/`
3. `uni-bonn.sciebo.de/`

Further IT-Tools

VPN

At the uni Bonn you need a VPN (Virtual Private Network) for two things:

- Accessing the internet via WLAN
- Accessing the university's intranet from home

What makes it a bit confusing is that the uni and the CS institute are (again) using two different VPN systems. In most cases it should not matter which of the two you are using, unless you'Re trying to access information specifically for CS only. If you are having trouble with the VPN for web access we recommend trying the eduroam WLAN (see page 50) instead.

CS-VPN: The institute of computer science uses the open source system OpenVPN. To access the institute's intranet via OpenVPN, you require a profile, or certificate, which can be requested and downloaded via the b-it / IoCS User Management Interface. To authenticate, you will need to use your CS username and password. The GSG website offers step-by-step instructions for different OSes here: `gsg.informatik.uni-bonn.de/doku.php?id=en:vpn`

Uni-VPN: The uni uses a system by Cisco, on which there are various opinions. Some students connect through it without any problems, while others experience frequent errors and suddenly lost connections. Another issue is that there is no Cisco client available for some systems.

The website of the HRZ (see link box) offers client downloads for Windows, Mac OS and Linux. There you will also find detailled tutorials for each OS. Once the client is installed, enter either `https://unibn-vpn.uni-bonn.de` if you want to access the intranet from home or `https://unibn-wlan.uni-bonn.de` if you want to use it for WLAN access.

SSH Tunnel

When you don't need a full VPN connection, but only want to access a few intranet services real quick, you might find SSH (Secure Shell) useful. SSH is a usually text-based tool with which you can execute command line expressions on an external server instead of your own computer.

For that, you will need your CS account. To set it up, we recommend the tutorials from

the GSG: `gsg.informatik.uni-bonn.de/doku.php?id=en:ssh`

Books and journals online

The Institute has a subscription for the IEEE Copmuter Society Digital Library and ACM Digital Library, that can be retrieved online. This can be useful when you are required to read academic articles for seminars.

On top of that, the ULB library has a couple more subscriptions, as well as many books from the computer science field. They are often also available in digital form. See page 41 for details.

For access to the physical library you will need a library card, which you can apply for on the ULB website and later add to your Uni-Bonn-App (see page 47).

Computer pools

The institute for computer science has a bunch of CIP-Pools. Accessible for students are two Windows pools and two Linux pools in the basement of the computer science building (see map, page 16). To log in to the computers there, use your CS account.

To enter the CIP-Pools you will need a code to type in at the door, which you learn in one of your first lectures and can ask for any time in our office.

door code

Found out the code through asking or dark magic? Take notes here!

The pools also offer a scanner-printer-combo named `flosse`, located in the BYOD-room. Every month, you get 50 pages of print credit added to your balance. If you don't use them all they stack for the next month, up to a maximum of 300 pages. You can print from all CIP-POOL-PCs, as well as (through a web interface) from your own laptop or tablet. As an alternative you can print at the libraries, paying with your mensa card.

Besides the pools at the CS building, the libraries offer some public computer workstations as well, you can log into those using your Uni-ID.

Links

1. `ecampus.uni-bonn.de`
2. `tvs.cs.uni-bonn.de`
3. `email.uni-bonn.de`
4. `hrz.uni-bonn.de/en`
5. `gsg.cs.uni-bonn.de/`

Useful Tools

IDE There are a lot different IDEs and opinions on IDEs. There is no real right or wrong here and the choice highly depends on the programming language and project at hand. Nonetheless, here are a few recommendations:

JetBrains (`jetbrains.com`) offers IDEs for a bunch of programming languages and students get them for free.

If you are looking for a more lightweight solution, you should take a look at *Visual Studio Code* (`code.visualstudio.com/`) or the variant without telemetry, *VsCodium* (`github.com/VSCodium/vscodium`). This editor offers a large library of extensions, which can be added as required and in this way provides support for almost every programming language.

LaTeX & Typst are typesetting engines and especially popular for writing academic documents, as they are very versatile and provide a good mathematical formula editing system. LaTeX is the classic, while Typst is a new system increasingly replacing LaTeX recently. If you want to try it out, you can use `typst.app` and `overleaf.cs.uni-bonn.de` or install them locally.

GNU/Linux is used a lot at university, so it's good for Windows users to familiarize themselves with the system. A good start is the distribution Ubuntu, which is especially suitable for beginners. This is also the one used in the Linux pools. Those who want keep using mainly Windows or Mac can set up a Virtual Machine instead, e.g. with *Virtual Box* (`virtualbox.org/`). From time to time, CS and AStA host linux install partys where seasoned users help you with your setup and answer questions.

Git (e.g. via GitHub, GitLab or Gitea) is commonly used for working together on coding projects, including version control. For beginners we recommend `ohmygit.org/` and the various "git cheatsheets" on the web.

Student Transit Ticket

Important Note

To use your student transit ticket, you need the Uni Bonn App **and** your valid photo ID card or passport! If you don't carry both, your ticket is invalid. It is a personalised ticket, so only you can use it.

All students of Uni Bonn get a *Deutschlandticket* (also called D-Ticket), a public transport ticket valid for the whole semester all across Germany. You can find it in the Uni Bonn App (see page 47). Since all students get one, it is much cheaper than if you would buy one by yourself. It still makes up most of your social contribution (semester fees). Even if you do not intend to use it, you have to pay for it, but there are exceptions in some circumstances, such as indigence or severe disability or people who already receive a D-Ticket through their employer or spend the semester outside of the country. In these cases you can apply for a refund through the AStA.

`asta-bonn.de/en/services/consultations-and-services/semester-ticket-refund`

Where can I use it?

In general, you can use all trains, trams, subways and buses in Germany. **Exempt** are the trains of type ICE (InterCityExpress), IC (InterCity) and EC (EuroCity), as well as other long-distance trains, such as FLX (FlixTrain) or Thalys. Additionally, you may not use the first class, not even by paying an additional fee.

Mobility guarantee

Your bus or train arrived much too late or not at all? In public transit in NRW you have the mobility guarantee ("Mobilitätsgarantie"). This means that, if you are at your starting station and over the course of 20 minutes starting at the planned departure time nothing can get you to your planned destination (the next hop, so only direct connections count), you can get the cost of either a taxi or a long-distance train refunded. You have to pay in advance and can then hand in an application for the refund within two weeks. The applications must contain a receipt, so keep that in mind. Additional information as well as the forms are available here (in German): `mobil.nrw/service/mobigarantie.html`.

Riding Buses as a Computer Scientist 101

Most of your lectures and exercises will take place on the Campus Poppelsdorf. At the station **“Kaufmannstr.”**, lines 604, 605, 606 and 607 stop, at the station **“Am Botanischen Garten”** lines 601, 602 and 603 stop. All seven lines are main lines that run every 20 minutes (later every 30 minutes). Into the city, they all go via the central station (Bonn Hauptbahnhof/Bonn Hbf); out of the city, they split up.

At the station **“Nußallee”** you can take line 632, that also stops at both other stations. This (like all bus lines in Bonn that start with 63) is a tangential line that does not stop at the central station. It connects the Campus Poppelsdorf with the Campus Endenich. It only runs every half hour, and is a little unreliable due to it’s length.

To spare you from having to walk to the bus stop, only to learn that the next bus doesn’t show for 10 minutes, we hung a screen in the foyer, in front of the student body office that shows which buses will arrive next and when, with live data.

After 00:00 (12am), night buses run till 2am on weekdays or the whole night on weekends and public holidays; the **N2** at the station “Kaufmannstr.” and **N5** at “Am Botanischen Garten”. All night buses in Bonn are circle lines, that meet at the central station once an hour at xx:35.

Your connections at central station are RB26 to Cologne and Koblenz, as well as subways 16, 18 and 66.

Welo

Perhaps you’ve noticed the blue bicycles with a QR-Code on them all over town. These are rental bikes from *Welo* bike sharing (formerly *nextbike*)! You can find and rent them via an app on your phone. As a Uni Bonn student, this is partly free! If you register and verify your `...@uni-bonn.de` email in the app, the first 30 minutes of every ride are free (only in Bonn). After that you pay €1 per 15min (up to €9 per 24h).

`welo-bike.de/en/`

Attention: You have to return the bikes in the preassigned areas, else you will be charged a €20+ service fee. There’s also “yellow areas” with a €1 fee. The map in the welo app shows you the areas in detail.

Administration

First Steps

A great place to start is the AStA website. It provides you with a lot of useful information, such as the AStA-BAföG brochure, a scholarship guide, and, if you are financially strapped, short loans.

If you have any questions, you can contact the AStA via email, phone or social media. They also do consultations in person in their container offices next to the cafeteria. The current opening hours of e.g. the social department or international students departments are announced on the website as well.

For international students, there is also the International Office of Uni Bonn, which provides counseling related to studies and stay in Bonn.

BAföG

Anyone who thinks they might be entitled to receive educational support under the Federal Training Assistance Act, or BAföG for short, should submit an application to the BAföG office as soon as possible. BAföG is a financial support from the government for students, of which, however, half must be paid back after the completion of studies.

If you are from the EU, Norway, Iceland, Switzerland, or Liechtenstein, you can always apply for BAföG. If you are from some other country, there are very special regulations regarding BAföG entitlement. Therefore, it is best to ask the Studierendenwerk directly! If you are not sure, you should simply ask and just apply. Better to be safe than sorry.

If you are entitled to BAföG, you should in theory receive money starting from the month of application, but it usually takes time to process an application. But once accepted, you will get your money retroactively. If your application is more or less complete 8 weeks before the semester you are also entitled to an advanced payment.

So: Register at 'BAföG digital' or use the paper forms to secure your entitlement! The forms are available at the AStA and the BAföG Office, and can also be downloaded online. Fill them in, submit them online or by post, and wait. It's that simple.

Payments are usually made at the end of each month for the next. The amount you receive is 50 percent an interest-free loan, the other half you get as a grant. The maximum duration of the grant is based on the expected period of study (4 semesters/2 years with our Master's pro-

grams), although there are exceptions to this rule. These can include, for example, one free semester ('Flexibilitätssemester'), study visits abroad, failed exams or committee activities such as student council work.

For further questions, you can contact the BAföG office or the BAföG advice service of the AStA. There is also an online BAföG calculator, which you can use to calculate how much you might receive.

If you receive BAföG, you can also relieve yourself financially by applying for exemption from broadcasting fees.

Links

1. bafoeg-digital.de
2. bafoeg-rechner.de/Rechner/
3. rundfunkbeitrag.de/ausnahmen-von-der-rundfunkbeitragspflicht

Scholarships

If you demonstrate above-average performance, you can apply for a scholarship. If not, you should try anways. A scholarship means financial and non-material support as well as being part of a network.

The Federal Ministry of Education and Research promotes 13 scholarships for the gifted. Each scholarship is different: different backgrounds (political, religious, independent), different goals, different requirements. But financially, they all offer the same thing: As a scholarship holder, you receive a monthly tuition allowance of €300, and, if you are eligible for BAföG, the BAföG rate on top of that. In addition, there is a wide range of seminars, events and other activities on various topics, which are definitely worthwhile and, if you were to pay for them yourself, would cost a lot of money. These vary between scholarships, so be sure to compare and see which suits you best.

To get a scholarship, you have to apply and participate in a selection meeting. Here you score points mainly with your achievements, but also with voluntary and political commitment. Even if you think you won't get it - try anyway, it's worth it.

Residence Permit

If you are not from the EU, you must apply for a residence permit after your arrival in Germany. This should be done as soon as possible, but in any case within the period of validity of your visa, so that you do not run the risk of suddenly being in Germany illegally. You can apply for a residence permit at the foreigners' office in the city where you live.

At many foreigners' offices, it is necessary to book an appointment online. Attention: It is possible that an "interpreter" has to be brought along for the personal appointment. If you do not speak German, you could take a German-speaking fellow student with you, for example.

Registration in Bonn

As soon as you have found a room, a visit to one of the citizens' registration offices is mandatory. You should have registered or re-registered there no later than two weeks after moving in if you are able to get an appointment in that time frame. Here you also have to decide whether you want to register your main residence or secondary residence in Bonn. In most cases, the place of study is considered the main residence by the Residents' Registration Office, since students usually spend more time there than, for example, with their parents (if they live in Germany). However, if your main residence is not too far away from Bonn and you state that you spend the weekends and semester breaks there, you should not have any problems with the registration of Bonn as a secondary residence. But beware: In Bonn there is a tax on secondary residences.

Welcome gifts

If you register in Bonn, you will be rewarded by the city with a book of vouchers for e.g. theaters, museums and the swimming pool. These are only valid during your first year though. In addition, there is the possibility for students who are financed by BAföG to apply for the so-called **Bonn ID card**. This also offers some benefits. Applications can be made at the Social Welfare Office in Beuel, in the old Duisdorf Town Hall and in the Bad Godesberg Town Hall. By the way, when registering your residence, you can specify that your data may not be passed on to political parties (for example, if you do not want to receive mail from a party you do not like).

Health Insurance

To study in Germany, you must have health insurance. Note that in Germany there are public and private health insurance companies. Examples of public health insurance companies are AOK, BARMER, DAK, HEK, KKH and IKK, but there are many more. Membership can often be applied for online. If you are from the EU, you can get an EHIC — European Health Insurance Card from your health insurance company in your home country, with which you can register with a German health

insurance company, which will then provide an insurance certificate for the university. Make sure that your health insurance covers all treatment costs in Germany; a health insurance with a limitation on the treatment costs or the obligation to pay benefits will not be recognized in Germany. With all the different regulations, it is normal to be confused at first. Don't worry and when in doubt, just ask your insurance company!

Language Courses

The Language Center of the University offers language courses in German for foreign students. Registration is done online. If you want to take part you have to be quick: Especially the spots in beginners' courses are usually booked up very quickly.

Let's go!

If you want to or have to work while studying, you should read up on things like social security obligations or the maximum income limit for continuing to receive child benefits (see AStA's social info).

So good luck in the jungle of regulations, and don't panic — there are a lot of people and places that will be happy to help you.

Links

1. asta-bonn.de/en
2. studierendenwerk-bonn.de/en/financing/
3. uni-bonn.de/en/studying/international-students
4. uni-bonn.de/en/university/organisation-and-institutions/university-administration/international-office

Accommodation

For most people, the phrase "looking for a room" may initially sound daunting, but there is no need to panic; there are several ways to find a comfortable and affordable room.

You want a dorm room?

Firstly, you can apply for a place in one of the 29 student residences currently run by the Studierendenwerk, which offer a total of almost 4,000 places. However, it is best to find out as much as you can about the respective halls of residence, as the apartments and their facilities vary greatly: for example, there are "apartments" with their own kitchen and bathroom or "rooms" where you have to share both with

other students. “Double rooms” and apartments are not necessarily what you might expect: here, you share the kitchen or kitchen and bathroom with only one other student. The location is also important. Tannenbusch or Bad Godesberg are not recommended for everyone, as these districts are said to have higher crime rates.

All student residences in Bonn are now connected directly to the university network and thus also to the Internet via fiber optic cables. This allows users to surf at speeds of 1,000 megabits per second for both uploads and downloads. It is important to note that only LAN is available in the residences and that you must purchase your own router if you want to use Wi-Fi.



Source: Studierendenwerk Bonn

Information about the individual residences and the application documents can be found on the Studierendenwerk website (link 3).

After submitting your application, you will hopefully receive an apartment offer soon (realistically, this can take 4-6 months).

Your lease is usually limited to three years, but can be easily extended for another year at the student union. Those who are involved in the student council or other university politics will receive an additional six-month contract extension for each semester in office. The respective chairpersons will issue you with a certificate for this. The same applies if you take on a mentoring role in a dormitory, but for this you must be elected at the general meeting.

The free housing market

Experience shows that the situation on the housing market becomes significantly more difficult shortly before the start of the semester. That’s why you should start looking for accommodation as early as possible. If you end up paying rent a month early, it’s peanuts compared to what you might otherwise pay for a more expensive room rented at the last minute. However, as the start of lectures approaches, it may be worth taking a small or expensive room first, rather than having none at all. It is important not to lose heart: finding accommodation can be very difficult and sometimes take weeks or months, or even up to a year, depending on your individual budget and preferences. But if you keep at it, you will definitely find the right place sooner or later!

For anyone who wants to try their luck on the open housing market, here are a few places to start: On Mondays, Wednesdays, and Fridays, check the classifieds in the General-Anzeiger, the Bonner Anzeigenblatt (Wednesdays and Saturdays), WG-Gesucht, the Schnüss with WG offers, and, of course, the countless bulletin boards in the cafeterias, cafés, and institutes. *Kleinanzeigen* also has a section for rental requests and offers.

Some things to watch out for: In Germany, renting with furniture or even a kitchen is not the default. If you do not want to bring your own, look for the keyword "möbliert" (furnished). One common trick here is the kitchen. A lot of the time, there is a kitchen owned by the person renting before you that you can have at a usually overpriced rate. The idea is that among multiple applicants, the person willing to pay for that gets the appartment. Always assess the kitchen quality carefully and ask if you may rent without taking the kitchen.

Studierendenwerk

The Studierendenwerk also offers a free room referral service. It can also be helpful to tell acquaintances and friends that you are looking for a room / apartment. Sometimes rooms / apartments are rented without being advertised, or contacts can give you an advantage in getting shortlisted. Foreign students who are likely to study in Germany for a longer period of time are best advised to contact the International Office.

AStA

For people who have trouble affording housing, the AStA also offers the project "Renting for Help". Participants can rent spaces where they are only required to pay for incidentals (e.g. electricity) with money, while the rent itself is covered by providing help, such as housework, gardening or childcare to their landlord/landlady, who can be senior citizens, families, people with disabilities or single parents.

The AStA-Website also links to a number of helpful ressources (see link 1).

Links

1. `asta-bonn.de/en/services/consultations-and-services/housing`
2. `wg-gesucht.de/en/`
3. `studierendenwerk-bonn.de/en/accommodation/`

Canteens

The university has several canteens (Mensa, plural: Mensen) and cafeterias. The nearest for you is the "CAMPO" on campus Poppelsdorf. You can find it on the map on page 2. Here you will get a warm lunch at cheap rates mondays through fridays from 11.30 to 14.30 (may differ on fridays during semester breaks).

When paying at Mensa, you will see a lot of people using special Mensa cards. These are sadly discontinued and you will not receive one anymore. Instead, you can either pay with normal debit/credit card or contactless payment (i.e. with NFC on your phone). To have the student rates applied to your price, you also have to show your student ID (see page 47). If you want to pay faster and not present your ID every time, you can install the app *Kuario*, log in with your uni ID once and add a payment method. From then on, just present the Kuario app at Mensa checkout to pay.

Bars and culinary delights

Now that we have taken a closer look at everything you need to know about studying, there is another list for you. This one is special though, because it only deals with your physical well-being.

No matter whether you have a nice meal with your partner, partying through the night or going through the pubs with friends, here you will find the most important pubs, clubs and culinary places in Bonn. At large, most of the spots focus on two areas: the "old town" (Altstadt) and the city center.

"Old Town" (Altstadt)

Bonn's old town shines with its charm through old, small streets, old, small houses and of course old, small pubs. The best way to find something suitable here: Just try it out! The pubs are all so close to each other that nothing stands in the way of a merrily stumbling from pub to pub.

A good way to start exploring is by beginning a tour at the intersection Maxstraße - Breite Straße. Right at the corner lies the **Kult Kiosk** that offers a nice place to meet up. You can then continue to work your way either along Maxstraße or Breite Straße and you will find a bunch of bars left and right. The following is a small selection that by no means claims to be complete

and does not have to be perfect for everyone - but it does offer a good overview of the old town.

The **Babel** is a small pub on Breite Straße, deep in the heart of the old town. Typical for pubs they offer Kölsch, Pils, wheat beer and a football table. Similar pubs near to this one are the **Embassy**, which offers spicy "Mexikaner" shots as well as tequila, and the **Steinbeck**, a good place to try out different whiskeys and rums.

The **Pinte** is, like the Babel, a small pub. In addition to the usual stuff there are different Polish beers and schnapps here. Not generously spacious, but pretty cozy.

The **Flynn's Inn** is a small Irish pub on Wolfstrasse. In addition to Irish beer (Guinness and co.) there is a *huge* selection of whiskeys from Ireland, Scotland and England.

Another notable Irish pub is the **Dubliner**. This pubs specialty are regular events like live-music. Also, very popular are karaoke nights on Saturdays and Sundays. One of its highlights is the **Doppelmittwoch** (double Wednesdays) with pub quiz as well as karaoke until very late at night.

One popular venue for international students is the **BillaBonn** which offers good beer, cheap cocktails, many tables as well as a lot of space in front of the pub. At the same intersection lies the **Tresor**, offering Metal/Hardrock/Alternative music as well as Caribbean cocktails at **Coco Mango**.

For all music fans, instead of going to the **Tresor**, the nearby **Musiktruhe** and **Stachel** could be a good place to visit. While the Musiktruhe shines with CD-Rock, darts and pool, the Stachel offers basement charme, sitting on bricks, listening to loud music and ordering extremely cheap drink specials. Old school!

Open until late at night is the more left-leaning/alternative **Bla** which has regular events ranging from Live Punk to Stand-up comedy.

City Center

As soon as you step out of the small, narrow streets of the old town, the locations also get bigger, more ornate and - how could it be otherwise - more expensive. However, the prices in Bonn are consistently relatively mild,

mostly comparable to Cologne, but some corners of Cologne will be rather cheap.

The **Tacos** is a Mexican cocktail bar near Bertha-von-Suttner-Platz. Accordingly, there is Mexican food - burritos, tacos, nachos, quesadillas - and cocktails (including tasty non-alcoholic ones). Don't be confused: For historical reasons, all hours are happy hour - for all cocktails until 9pm, afterwards for jumbos only.

There is also an Irish pub in the city center, the **James Joyce**. It is centrally located near the Kaufhof and has the usual Irish pub repertoire. Much like the Dubliner, the James Joyce is also known for its very long opening hours.

Pendel and Cartoon are two shops on Friedensplatz that offer *everything*. The menu and drinks menu is so large that it is difficult to highlight individual items, and the quality is consistently good. Only thing is that the waiting time for the waiters to come by can be a bit longer every now and then.

Another notable venue at Friedensplatz is the **Sudhaus**. It offers traditional local Rhineland cuisine as well as a weekly modern menu. The portions are quite large, the price moderate and there are always changing vegetarian options.

Also near the Friendesplatz is the **Bönnsch** - a classic brewery that brews its own beer: the eponymous Bönnsch. The brewing method is similar to a Kölsch, but the taste is clearly distinct - it's without a doubt worth trying. The food is also typical Rhineland brewery stuff, but vegetarians can also find something here.

The place to go if you're hungry at night, when other places have long closed is **Calador**. It has two branches, one at the central station and one at Friedensplatz and offers cheap and fast pizza. If you are a pizza snob though: don't come here. Calador pizza kills hunger and prevents hangover, that's about it.

If you'd like a proper pizza or other Italian food, the **Tusculo** offers a wide and, above all, delicious selection. The Tusculo also has several locations, the largest is the Tusculo Münsterblick near the eponymous minster.

Of course, there are also great opportunities to go out besides these two hot spots, and again: the best way is to simply get out there, try things out and determine for yourself what you like and where. This list should get you started anyway and we add lots of tips on good food sources below.

Clubs

Bonn's club scene is, politely said, quite meek and has shrunk even further during the Covid pandemic. The already mentioned **Dubliner** offers a nice atmosphere often late into the night. Actual clubs like the **Carpe noctem** (short **Carpe**) play a wide range of music and often have free welcome shots as well as drink specials. The popular club duo around here is the **N8schicht** and **N8lounge**, whose floors are connected to each other with a door. Especially the wide range of genres make this worth a visit.

If you're looking for the real deal nightlife, you unfortunately have to go to Cologne.

Food: Joners's insider tips

If you're looking for good food during daytime and the Mensa is already closed or offers one of its infamous and devoid of spices "curry" variations, here is a short list of personal recommendations. Some of these are quite close to the computer science institute, so give them a try:

Chinese Tak Kee (Hong Kong), Dim Sum (Canton), Yang Guo Fu (Malatang), Kolaila, Homei (Gyoza).
Indian Mogul, Namaste, Royal India.
Vietnamese Hoi An, Cay Tre.
Korean Eller Asia Shop (Lunchtime only!), Korean BBQ Grill.
Mexican Tacos.
Burgers Atawich, Bonnanza.
Italian Tuscolo, Nennillo.
Polish Restauracja Polonia.
Tibetan Kleiner Herd Großes Feuer.
Döner Agora bei Schatzi, Sefa, Serhat.
German brewery cuisine Salvator, Bönnsch.

If proximity to campus is key during lunch break or after an evening with your study group, we recommend you either grab dumplings at "Kleiner Herd Großes Feuer" on one side of campus or walk along the **Clemens-August-Straße** on the other side, where you try your way from Atawich on one end, through Hans im Glück, Suppen Bowl, Nennillo, Bonnanza and Tibet Imbiss to Gesindehaus and Eller-Asia on the other end.

Coffee and beyond: Tuna's tips

Bonn offers an abundance of coffee shops, and almost all of them are good. Just give them a go! Besides coffee, tea and hot chocolate, many of them also serve great smoothies and pancakes. Nonetheless, here are a few personal recommendations:

South End Black Coffee Pharmacy
Poppelsdorf Kurt
City Center 5 Senses Espressobar, Kaffeesaurus (ideal for working/studying), Café Fürst (great cake), Pirkan Café

Our favourite **ice cream parlours**, where the ice cream is full of flavour, are the *Fontanella Eiscafé* in Endenich, with its delicious iced coffee, iced cocoa and crunchy cones, and the *Gelateria Italiana* by the Botanical Gardens (right next to campus), with killer flavours such as blackcurrant (seasonal only), salted caramel and, most popular: dark chocolate.

There are three sources of **Bubble Tea** (Boba) in Bonn: Onezo, TeaMate and AnAn. Which one is best is forever subject to debate with some strong opinions ;D. Personally, I recommend Onezo for delicious tea with short waiting times, but TeaMate offers not only the classics, but also sodas and smoothies with boba.

Free time

Your studies are important, but hopefully not a 24/7 job. :) In this article, we wanna recommend a couple of things to do in your free time.

Univerity Sports

The university sport offers students both the Halle5 gym and a wide range of courses in and around Bonn. From athletics to team sports, from martial arts to dance, here you'll find over 90 different sports at affordable student rates.

`sport.uni-bonn.de/en`

Experience culture

As a student of the University of Bonn you automatically have the **Kulturticket** from the AStA. This ticket let's you attend theaters, concerts, musicals and literature events for just €3 and visit many of Bonn's museums for free. Just show your student ID at the box office!

This offer only applies if the event wasn't sold out. The website and app let you check availabilty ahead of time.

```
asta-
bonn.de/en/departments/
further%20departments/de-
partment-of-culture-and-
student-initiatives/asta-
kulturticket
```

The club *kultick* adds exclusive offers on top, such as artist talks and free drinks.

```
asta-
bonn.de/en/departments/
further%20departments/de-
partment-of-culture-and-
student-initiatives/asta-
kulturticket/kultick
```

Create culture

There are a bunch of self-governed cultural groups at uni Bonn and a lot of them will be happy to welcome you as their member. How about making music with the university orchestra, jazz choir or the big band? Wanna act with the Bonn University Shakespeare Company? Or take art or literature workshops at the atelier and litterarium? The university also has its own debating club!

Links

1. uni-bonn.de/en/university/university-life/music-forum/ensembles
2. busc.de/
3. uni-bonn.de/de/universitaet/unileben/litterarium-atelier
4. debattierclub-bonn.de/

This list only covers a few from the wide spectrum of student groups, ranging from culture, through society and politics, as well es social engagement. You can find a full list on the AStA website.

```
asta-bonn.de/en/services/
student-groups
```

Go outside

Bonn offers many opportunities to be out in nature. Whether you like spending a relaxing afternoon in the Hofgarten, jogging through the Rhine meadows in the morning or taking a hike up Drachenfels hill to "dragonstone castle".

Prefer going by bike? Check out the radius cycling club.

```
radius.uni-bonn.de/
```

Weird Germany

Weird idioms and words

"Stell das Fenster auf Kippe" Tilt the windows. In Germany, you can put your window on "kipp". "Kipp" means tilt in colloquial German and is quite widely spread throughout the country.

Handy It's not what you think! This is the German word for a cellphone/ smartphone. Germans tend to forget that this word is German and use it when speaking English.

Mobbing It's not particularly a crowd of people, the mafia or an angry crowd. This is the German word for bullying.

Mail Don't go running to the next post-office when you are asked to send something by mail. Germans seem to have found E-Mail to be too long of a word and just say mail.

To toast or not to toast? If someone offers you a toast, it doesn't have to mean that your bread was toasted. White bread that is usually used to make a toast is also called toast when not toasted. In Addition if a German wants bread it's very likely they don't want white bread because they have humongous varieties of breads and strong opinions about them.

Water & Waste

Tab water In Germany, you can drink the tab water and save money. It has a good to very good quality all throughout the country. Even most sold bottled water is just tab water from a specific region.

Waste sorting Germans take recycling seriously. Here are some basic guidelines: we have four main garbage bins

- the blue bins ("Papiermüll") for clean paper and cardboard
- the yellow bins ("Plastikmüll") for plastic, metal and packaging with a green recycling dot on it
- the green bins ("Biomüll") for anything vegetable, egg shells, flowers. But no meat or fish and no cooked leftovers
- the grey bins ("Restmüll") for the remaining household waste

On top of these four, which are available directly at your house, there are bottle banks ("Altglascontainer") in each neighborhood (sorted by "white"/clear, brown and green glass) and "Sperrmüll", which is collected on the roadsides on 3-4 fixed days of the year and covers large items such as broken furniture.
You can find more details here: `bonnorange.de/en/service/private-individuals/waste-bins-and-the-like/overview`.

Pfand Most plastic and glas bottles, as well as beverage cans are returnable, so don't throw them away. You pay 8, 15 or 25 cents for them, which you get back when you return them at a special machine at the grocery store. It does not have to be the same store you bought them at, any store should work. The machine doesn't give you cash, but a small ticket with store credit, but you can exchange it for cash by asking at the register.



If you are unsure whether a bottle is returnable, look for the "Pfand" logo. Non-returnable glass bottles and jars go in the bottle banks and plastic ones into the yellow bin.

While out and about

How to tip There is no set percentage for this in Germany. While 10% is considered the current norm, you are not obliged to pay this. Waiters do not depend on tips for a living wage, they are a way of showing appreciation for good service.

When out with Germans it is most common that everyone will pay their own drinks and food. A waiter will usually ask whether you want to split the bill or not ("Zusammen oder getrennt?") and will give you individual bills. Sometimes even on dates. Be clear when inviting people so there is no misunderstanding.

Refills In Germany, you won't get a free refill for your drinks. The sold water is also not tab, but bottled water and not on the house.

Why is your bartender scribbling on your beermat? When a barkeeper has a full house in a pub, they sometimes draw lines on beermats to keep count on how many drinks you have already had. They usually also keep track with a computer program, but better safe than sorry.

Cheers You are out drinking with your German friends. You get your drinks and want to clink glasses saying cheers, but your companions seem to

stare at you? — Well, Germans consider it to be bad luck not to look into each other's eyes when clinking glasses. Germans find this weird too, but do it nevertheless - sometimes with exaggerated staring for ironic effect.

Public transport In most cases you don't have to show your ticket upon entering, only when inspectors or the driver ask for it. Especially since the introduction of the D-Ticket single-journey tickets have become more and more unusual. In small towns or during less busy hours, like at night, you might be expected to show it upon entering though. Rule of Thumb: if the (bus)driver opens only the front door, have your ticket ready. On long-distance trains, a ticket inspector will come by your seat at some time during the journey to check your ticket almost every time, since those are more expensive and exempt from D-Ticket. For more information on public transport and your student ticket, see page 57.

The Rhineland Special

People in the Rhineland (area around Bonn/Cologne) become "Jeck" (weird, crazy) for a few weeks every year. This is due to the "Karneval" (carnival). The so declared "fifth season" formally starts on November 11th at 11 past 11 o'clock (on 11.11. at 11:11), but the real big celebration happens in February. It starts on "Weiberfastnacht" (Women's Shrovetide) which is usually the Thursday before Ash Wednesday, and peaks on "Rosenmontag" (Rose Monday).

Be aware that you may be greeted with "Alaaf", asked for a "Bützchen/ Bützje" meaning kisses (which you can decline), encounter highly intoxicated people in weird costumes and parades called "Karnevalszüge" where people throw candy and small flower bundles (called "Strüßje") to the masses.

If you don't want to partake, go on vacation, stay inside or just watch the masses from the sideline for fun. There will usually be information available online and in newspapers on when and where the parades and big events are taking place, so you can easily find or avoid them, but there will also be stray groups in streets and pubs.

Whether you like Karneval or not, this is the best time to find cheap costumes and strange decorative items in stores all around you and - most importantly - try the seasonal baked goods, e.g. "Berliner" with various fillings.

Dictionary

Your courses are held in English, and usually all offices can communicate in English as well. Still, you will encounter information that is only available in German, whether that may be due to someone forgetting to translate it, not having the knowledge or resources to do that or because they might not even think about it. Therefore, it still might be useful to know a little bit of German.

Language Courses

The university offers a few language courses for international students, but they are, like all language courses, much sought after. If you are able to get into one of these courses, you will be able to get the A1 certificate for German by completing the course and the exam at the end. However, the admission time for these courses tends to be well before the beginning of the semester, therefore you cannot sign up for it for your first semester. These courses can be found here: `uni-bonn.de/en/studying/international-students/learning-german/in-semester-german-language-courses/page`

If you cannot get into one of these courses, the university also has a partnership with Rosetta Stone. You can get free access to this language learning platform by registering with your university email using the steps explained here: `hbza0-c1.sprachen-online.eu/form`

Ä, Ö, Ü, and ß

You have probably noticed some of the four letters above. The first three are called umlauts (from German “Umlaut”), the last is called “Eszett (SZ)” or “scharfes S”. If you do not have these on your keyboard, you can transcribe them, using the following rules:

Ä	→	Ae	ä	→	ae
Ö	→	Oe	ö	→	oe
Ü	→	Ue	ü	→	ue
ß	→	ss			

This may lead to ambiguities (especially around ß and ss), but it is usually clear from the context. There also exists a capital ß, though it is only used for completely capitalised text as the ß never starts a word.

University words

If you ever have trouble understanding something, you can of course ask us or your fellow students. However, we thought it might be useful to provide you with a few words that you will encounter during your time at the university.

AStA: Allgemeiner Studierendenausschuss (general student's committee) – page 3

BASIS: Bonner aktuelles Studieninformationssystem, the course catalog and student management system of the University of Bonn – page 48, see also: course catalog 21, 31, 36, 44, 48

CIP-Pool: Computer Pools – page 44 55

computer science: Informatik

course catalog: Vorlesungsverzeichnis – page 48, see also BASIS 21, 31, 36

credit point: Leistungspunkt – page 19, see also ects 19, 28, 34, 40

doctor's note: Attest (für Prüfungsunfähigkeit) – page 19 22, 32, 37

ECTS: European Credit Transfer System – page 17, page 19, page 39, see also: credit point

examination office: Prüfungsamt – page 19

FSR: Fachschaftsrat (student coucil) – page 3

FSV: Fachschaftsvertretung (student assocation representatives)– page 3

GSG: Gemeinsame Systemgruppe (shared system group), the technical administration of the institute of computer science – page 44

HRZ: Hochschulrechenzentrum (university computing centre), the technical administration of the university – page 44 52, 54

improvement exam: Verbesserungsversuch – page 19

lecturer: Dozent (male), Dozentin (female), Dozenten/Dozierende (pl. all)

library: Bibliothek, see also: ULB, MNL

MNL: Abteilungsbibliothek für Medizin, Naturwissenschaften und Landbau der Universitäts- und Landesbibliothek Bonn (department library for medicine, science and agriculture of the university and state library Bonn), the department of the library that is on Campus Poppelsdorf and holds most of the books for computer science, see also: ulb

NRW: Nordrhein-Westfalen (Northrhine-Westphalia), the state the university is inside. Germany is split into 16 states which have some autonomy, NRW is the largest by population 52

post-exam review: Klausureinsicht – page 19

registrars office: Studierendensekretariat

SP: Studierendenparlament (student parliament) – page 3

student body: Fachschaft – page 3, see also: FSR, FSV

ULB: Universitäts- und Landesbibliothek Bonn (university and state library Bonn), the main library of the university – page 41 55

VRS: Verkehrsverbund Rhein-Sieg (transit network Rhine-Sieg), the local transit authority around Bonn – page 57

WG: Wohngemeinschaft (flat share) – page 62

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The members of the student body work year round to support all students of our institute. We want to thank each and every one of them for the time and effort they put in to making all of this possible.

We want your help!

If you find errors or missing information, or have any suggestions, we would be very happy to receive your email to inform@fachschaft.info!

UNIVERSITÄT BONN

hochschul sport



SPORT.UNI-BONN.DE

Timetable

Time	Monday	Tuesday	Wednesday	Thursday	Friday
08:15 09:45					
10:15 11:45					
12:15 13:45					
14:15 15:45					
16:15 17:45					