



Orientation manual for new international students MSc. Embedded Systems Engineering

March 2021

Welcome

We would like to take this opportunity to welcome you to the Faculty of Engineering at the University of Freiburg. Your decision to study Embedded Systems Engineering with us at the Faculty of Engineering means that you have chosen an innovative field being taught at a young and dynamic institution. The very fact that Freiburg's Faculty of Engineering is relatively new, means that our more than 50 professors and several junior research groups exploring future-oriented fields will expose you to a broad spectrum of interesting topics which have equal significance for both R & D and the industrial sector. The way things work at a German university might be quite different from what you have been used to. For one thing, here you are expected to work independently and demonstrate a large measure of self-responsibility and initiative. That does not mean that you are alone. Our department has a large, supportive team to help you. Our goal is to assist in smoothing the way for you to complete your studies successfully with as few hitches as possible. In this brochure, we hope to provide you with an overview of the content and general framework and conditions of your course of studies in Embedded Systems Engineering. It is designed to aid you, especially at the beginning, in getting the most out of your education. Please do not hesitate to provide us with feedback about this brochure (studienkoordination@tf.uni-freiburg.de). This will help us to keep improving our efforts for the students who will follow in your footsteps. Please know that you have our best wishes for success as you delve into your studies and student life.



Prof. Dr. Rolf Backofen (Dean)



Prof. Dr. Jürgen Wilde (Dean of Studies)

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1 Studying in Germany

1.1 General Information

1.1.1 The German Higher Education System

Germany is a federal system, which means it is organized into different states, the so-called "Bundesländer". These "Bundesländer" are responsible for all matters relating to education, including universities. The result of this system is that there may be substantial differences between the "Bundesländer" in some aspects of the education system, although a general framework is set by laws at the federal level.

In terms of teaching and research, universities are quite independent and separate from the general framework and so not governed very much by laws or policies on a higher level. This means that they have a high level of freedom to decide the contents of the programs they offer and the exams the students have to take. Therefore, it is very difficult to compare similar programs, lectures and exams at different universities.

The top level of management at a university has limited power. There is almost no university wide policy about how to teach or how to conduct exams. Apart from some general regulations, such as the length or timing of exams, individual lecturers and examiners are given a lot of independence in how to conduct lectures and exams.¹

1.1.2 University Staff

Academic staff at the University are divided into three groups:

Professors: A professor heads a chair or research group (German = "Lehrstuhl"). To become a professor, one has to first complete a doctorate (Ph.D.), then work for several years as a PostDoc and gather extensive experience in research and teaching and publish a lot of papers. The so-called "Habilitation" (= process of becoming a professor) is completed with a habilitation thesis.

Permanent staff: Most of the chairs have some permanent academic staff (known in German as "Akademischer Rat", "Akademischer Oberrat" or "Akademischer Direktor") that will mostly have a Ph.D. degree. Note: There are only a few of these positions. Most of the work is done by the professors (who are employed permanently) or by non-permanent Ph.D. students (who work temporarily at the University for between 3-5 years).

Ph.D. students: Each chair / professorship has positions for Ph.D. students. Sometimes it is just a small group of 3-5 students, but there may also be up to 20-30 students working at one chair, who are again divided up to subgroups (mostly headed by a PostDoc). Most Ph.D. students do not only work on their Ph.D. thesis, but are also involved in other projects ('pure science' or industry

related). They usually contribute to teaching or have internal duties within their institution.

Note: There are almost no employees who work just as 'lecturers' as it is the case in many other countries. Lectures are given by the professors and the permanent staff, supported by the Ph.D. students. All people who lecture are also involved in research activities. This is the so-called "Prinzip der Einheit von Forschung und Lehre" (= 'principle of the unity of research and teaching') which is a fundamental idea in the German University system. This principle is an important basis for understanding how a lot of the professors think about teaching and research.

Research and teaching are strongly connected

This principle means that everyone who gives lectures should also be involved in research activities in order to remain in close contact with the most up-to-date activities going on in a particular field and to have the latest knowledge available. This is supposed to ensure that the content taught in lectures is very up-to-date.

Of course, this requires from the lecturers that they have to balance work and responsibilities in both research and teaching, which is often not easy and might result, for example, in a conflict of deadlines (dates of lectures and conferences) and involve difficult decisions on how to allocate time and work resources. Students encounter these problems, for example, in the timely organization of lectures or in the availability of lecturers for an appointment.

Use of terms: Somebody who is giving a course/lecture is referred to as a 'lecturer'. This may be a professor or a non-professor. Sometimes the use of the term 'professor' is supposed to stress that it is the Professor himself who is giving a lecture (not a non-professor), sometimes it is just used as an equivalent for 'lecturer' independent of whether somebody is a professor or not. In any case, the German use of 'lecturer' is not consistent with the British term 'lecturer' which describes a position within the British university system. The term rather describes the person who is chairing a course (this could be a Ph.D. student, too).²

1.1.3 High Level of Freedom

Compared to the university systems in other countries the German system provides more freedom both for the lecturers and the students. This also means more responsibility. The basic idea of the German education system is that the ability to handle autonomy and the responsibility that results from the freedom to work independently is an important part of the academic qualification which is gained during a study and which is certified with a Master's degree. Students should not only be trained in a subject (content, methodology, etc.) but also in skills which are not related directly to a subject, so-called 'key qualifications'. These are transferable skills which are important and similar for all subjects, for example, setting priorities, developing work and study plans, balancing studies, work and life. They are trained as a part of the learning curve of one specific subject, but are actually independent of that subject.

This idea of the important ability to handle freedom and responsibility means, for example, that:

- Professors have a high level of freedom to decide about the form and the content of courses they give and exams they carry out. There is no strict curriculum which professors have to follow but they may decide very freely what to include, what to emphasize in a lecture and what not. They are open to feedback from the students, however, and most of them are prepared to take the wishes and demands of students into account, whenever possible. Therefore: Whenever students have ideas or requests relating to the content of a lecture, they should talk to the lecturers. That is absolutely common and widely accepted.
- For exams there are some general rules which have to be applied but apart from that professors may formulate questions as they want, and personal styles are quite different. Therefore, it is very important before an exam to get advice from students who already took the same or another exam with this specific professor.
- Students have some freedom to choose special topics within their study program. In ESE they may choose two concentration areas and a personal profile (see chapter 1.2.3).
- Students may come to individual agreements with their professors/lecturers. This refers, for example, to reports they have to write or presentations they have to give. The individual agreement may be about length, content, deadline, form, etc.

Note: It is very common and always acceptable to ask for an individual agreement. But: once an agreement has been made, most lecturers like to stick to it and not change it all the time; also a request which was first rejected should not be submitted again.

- Students are very free as to when and how to learn. In almost all lectures, clear recommendations are given on how to learn (for example, which books or papers to read, which material to work on, which exercises to do), but unless explicitly said, nobody will check whether students follow the recommendation or not. As long as the student's performance in the exams is fine, nobody minds students following their own path. In particular one 'generation' of students very often gives recommendations on what to learn in a specific course to the next generation of students which are, say, at least as good as the recommendations of the lecturers. Note: If it is explicitly said that you should work or learn in a specific way, then you really should do it. As it is done only in rare cases it is even more important in these.
- Compulsory attendance. In most lectures it is not compulsory to attend. Usually it is only compulsory for seminars, laboratory or practical courses but not for other lectures. Nevertheless, it is often regarded as an act of courtesy or a display of motivation to attend a lecture regularly.

Learning to
work
independently
is one objective
of your studies

Exception: In many cases, important organizational details are

discussed in the first meeting of a course. Therefore students are expected to attend the first meeting of a course. If they cannot attend at all, they are supposed to collect the relevant information first from other students and only ask the lecturer more detailed questions.

Note: As attendance is only compulsory in a few cases, the duty to attend these must be taken even more seriously! This applies in particular to lab courses. In lab courses it is also of the utmost importance to come to each meeting very punctually and to attend every (!) session of a course, unless serious (!) reasons, like illness, make it impossible. In such cases students who are unable to attend should inform the lecturer via e-mail about their absence.³

1.1.4 Culture of Discussion

Most lecturers like to have discussions in their courses and therefore want the students to be very active in the courses. Students are expected:

- to ask questions
- to discuss
- to have their own opinion
- to give an individual assessment of things
- to develop their own ideas

Hardly any lecturer will mind if a student asks something, criticizes something (in a proper way) or has a different opinion about something. If a discussion takes too much time or the course is not the right place for it, the lecturers will let the student know. If they do so, this is not to be regarded as criticism of the initiation of a discussion or the raising of a question, but as a means to proceed with the course.⁴

1.1.5 Degrees

1.1.5.1 Bachelor's Degree

The combination of the bachelor's and master's degrees replaced the old course of study leading to a diploma during the winter semester 2006/2007, and is now the standard in Germany. The bachelor's degree work lasts six semesters and the program complies with international standards. Great emphasis is placed on preparing students for professional life and giving them career-related experience. During the entire course of study, they will participate in lectures about subjects designed to prepare them for the world of work. These include: communication, project management and business start-up. In some of the classes students are required to complete a project and/or perform practical tasks. A bachelor's degree qualifies for entry to the business world and is also a condition for further study towards obtaining a master's degree.

1.1.5.2 Master's Degree

Since winter semester 2012, graduates with a bachelor's degree in Electrical

Engineering, Electronics, Mechatronics, IT or Computer Engineering have been eligible for admission to the Master's in Embedded Systems Engineering Program, which is taught in English. The Master's Program is research oriented and provides you with the competencies you need to conduct independent, scientific research. Additionally, you will participate in lectures, seminars and labs chosen according to your specialty areas. In the second year, you will also write your master's thesis. Having obtained your master's degree, you are qualified to begin working towards your Ph.D. For more information about the master's program, please go to: <https://www.tf.uni-freiburg.de/en/study-programs/embedded-systems-engineering/m-sc-embedded-systems-engineering>

1.1.6 Course Types

Your study program consists of several courses. The following course types are offered

- Lectures ("Vorlesung") and Tutorials ("Übung") (also called Exercises)

These are the traditionally accepted and practiced methods of educating students at university. The lecturer, usually a professor, presents the subject matter to the students. Experience has shown that in lectures, knowledge normally only flows in one direction. The students on the receiving end are, however, encouraged to ask questions and seek dialogue. Tutorials provide follow-up to material covered in lectures and their content is dealt with more extensively. This occurs mostly through discussing and working through practice handouts and notes, or by calculating sample exercises. Tutorials are normally led by students in advanced semesters, Ph.D. candidates and assistants.

Please note: Lectures and tutorials are stated as two separate courses in the course catalog. Please make sure to always register for the lecture as well as for the tutorial!

- Lab course or practical course ("Praktikum")

The point of lab courses is to put the theory you have learnt into practice. Such courses have a flexible design, and in them, groups work independently to complete an assigned task or solve a problem.

- Seminars ("Seminar")

In a seminar, you have the opportunity to work through and increase your knowledge about a particular topic on your own. You then present your findings to other seminar participants.

1.1.7 Course Registration / Booking for a Course

You need to register in advance for each course you wish to take. Before being able to use the online registration system for the first time, you have to activate

your user account (see 2.6.2). You will receive your user name and password automatically after matriculating (= enrolling) at the University.

Please make sure to confirm or define your preferred e-mail address when first using the account, because this e-mail address will be fed as your contact address into the database of the student registry and examination office.

Course registration is necessary so that your instructor knows in advance how many students wish to participate in the course and how large the room for instruction needs to be. The advantage for you is that you can make your personal study schedule in the online system and you will see right away if any time clashes occur.

As you will see on the website <https://www.tf.uni-freiburg.de/en/studies-and-teaching/calendar-dates>, there are always two booking periods. It is recommended that first semester students, register for their courses **after having attended the orientation meeting** (i.e. during the second booking period).

If you have received a conditional admission and have to take some additional courses from the undergraduate program in Embedded Systems Engineering, it is strongly recommended to focus on those courses in the first and second semester and postpone some of the others to a later semester.

Starting with your second semester, you must always register for your desired classes in the first booking period, which starts approximately **four weeks prior to the first day of class**. Registration occurs online using [HisinOne](#). You can find instructions [here](#).


After the login click on the menu item "My studies" - "Planner of studies". You will then see all courses that are part of your curriculum. The ones that have an "apply" button are the ones that will be offered in the coming semester.





Please note: If you have booked a course and do not attend it, it will be shown in your transcript as "not completed". This note will only be deleted after completion of the whole Master's degree. You should therefore make sure to cancel your participation during the de-registration period.

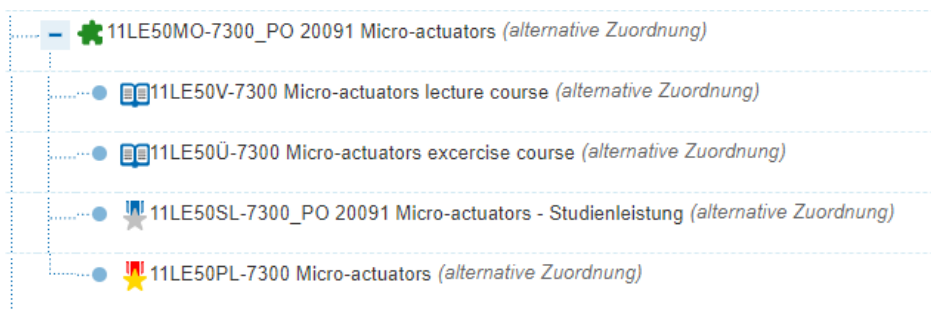
1.1.8 Examinations

Throughout the program, you will have a lot of exams. These can be oral exams, written exams or papers. It is important to know, that in Germany, students are not only expected to reproduce the acquired theoretical knowledge in an exam. They should also be able to discuss the knowledge, to apply it and to take it to the next level. In addition, many exams you will be under time pressure. It is therefore crucial to first get an overview over all the questions and then start with those to which you are sure to know the right solution.

1.1.8.1 Exams and pass/fail assessments

Each course (or module ) is completed by passing one or several assessments. There are two different kinds of assessments:

-  **Exams** (“Prüfungsleistungen”) can only be repeated once or - in three cases - twice (see 1.1.8.7). These are marked with a  in HisinOne.
-  **Pass/fail assessments** (“Studienleistungen”) can be repeated as often as needed to pass them. They are usually not graded, but even if they are, the grade does not have any impact on your final grade. Nevertheless, you also have to register for pass/fail assessments in HisinOne. They are marked with a  in HisinOne.



A module that consists of an exam and a pass/fail assessment is only completed once you have passed both, the exam and the pass/fail assessment.

1.1.8.2 Examination Regulations

The examination regulations provide the framework and conditions for your education. They inform you about what course work you need to do in order to obtain your degree, which appointments and deadlines you have to keep and all other requirements you have to fulfill. Examination regulations are a legal document. Only the German version is legally binding. However, an unofficial English version is available on the following website: <https://www.tf.uni-freiburg.de/en/study-programs/embedded-systems-engineering/m-sc-embedded-systems-engineering> (under 'Syllabus and examination regulations').

Make sure to read the exam regulations.

1.1.8.3 Which Version of the Examination Regulations Applies to Me?

For every degree, there is a different applicable version of the examination regulations. For new students in the Master's program in Embedded Systems Engineering, the applicable version of the exam regulations is the one from 2012 (“PO-Version 2012”).

1.1.8.4 Examination Registration and Deregistration

Examinations are always given during a certain timeframe. In the winter semester the examinations take place in February and March. In the summer semester in August and September. You can find the exact examination dates for any given semester at the Faculty of Engineering ("Technische Fakultät" - TF) at:

Examination registration takes place via internet.

<https://www.tf.uni-freiburg.de/en/studies-and-teaching/a-to-z-study->

[faq/examinations](#)

In order to sit an examination, you have to register for it. Examination registration takes place online using [HisinOne](#).

You may only register and deregister for an examination during the official registration or de-registration period. Please make sure you check the Examination Office's homepage.

Please note: Registration for a course and for an examination are two different procedures. By registering for a course, you are only acknowledging your desire to participate in a particular class. If you wish to sit the examination for that course, you must register separately for the corresponding exam.

1.1.8.5 Registration and Deregistration Procedures

Your registration for an examination is binding. It applies automatically for any necessary repeat examinations. You can only register or de-register during the official registration or de-registration period. After this deadline has passed, registering or de-registering for an examination is no longer possible. However, due to the Corona pandemic, different rules may apply, making a withdrawal possible on short notice. Please check the Corona information posted by the examination office: <https://www.tf.uni-freiburg.de/en/studies-and-teaching/a-to-z-study-faq/examinations>.

IMPORTANT: Once you have completed your exam registrations for a given semester, go to “my course enrolments and exam registrations”, print out the overview of the exams you have registered for and take it when going to the exams. If your name should by mistake not be on the list of participants that the examiner gets, you can prove that you have registered for the exam. In that case you will be conditionally accepted to participate in the exam.

Print “my (course enrolments) and exam registrations”!

1.1.8.6 ECTS Points

The ECTS point system is used for the bachelor's and master's degrees. Each course you take is assigned a certain number of ECTS points which correspond to the amount of work you must do to successfully complete it. In this system, one ECTS point is equivalent to about 30 hours of work. Included here is the time you spend preparing for class, doing homework and studying for an examination during semester breaks. If you want to complete the MSc. Program in four semesters, you should aim at obtaining approx. 30 ECTS points per semester. This adds up to a work load of 900 hours per semester (i.e. 150 hours per month or 37.5 hours per week).

1.1.8.7 Limits on Repeating Examinations

Every examination may be repeated at maximum once. Exceptions to this are 3 examinations which you are permitted to repeat twice. The first repeat examination must be sat at the next possible examination date. The examination office will automatically register you for the first repeat. That means that you have to take that exam unless you are ill. Given the fact that

You have 2 attempts for each exam. For 3 exams you can get a third attempt.

each course is only offered once a year, this means that you do not have the possibility to attend the lecture a second time before taking the first repeat examination. You will have to prepare for the exam using the handout and/or the online lecture material. Papers, projects, reports, bachelor's or master's thesis can only be repeated once.

1.1.8.8 Compensation Regulations for Improving Grades

In the Master's program in Embedded Systems Engineering you can try to improve your grade in two modules. If you want to make use of this rule, your first examination in the module must have taken place in, or prior to, the semester designated for that particular exam in the [study plan](#).

1.1.8.9 Grades

Grades are on a scale of 1 to 5 and include interim values as a way of further differentiating the evaluation of your performance. These interim values can be either .3 points higher or lower than a value between 1 and 4 on the grading scale. This means you could receive a grade of 1.3 or 2.7, but there are no such grades as 0.7 or 4.3, 4.7, or 5.3. The individual grades mean:

1 (very good) – your performance is excellent

2 (good) – your performance is well above the average expectations

3 (satisfactory) – your performance meets average expectations

4 (sufficient) – your performance, although lacking in some areas, meets expectations sufficiently to receive a passing grade

5 (non-sufficient) – due to significant deficiencies, your performance is not sufficient to meet the expectations and your grade is a non-pass.

A grade of at least 4.0 is required in order to pass an examination. Your final grade is calculated by averaging your grades received in the partial examinations as weighted by the ECTS point system.

1.1.8.10 Illness

Should illness prevent you from appearing for an examination or if you should discontinue an examination, you are required to provide proof of the illness in accordance with the Examination Regulations. To this end, you must obtain a medical certificate which includes information from your physician sufficient for the Board of Examiners to decide whether the illness in question satisfies the criteria for permitting the cancellation or interruption of an exam. Making this decision is solely the responsibility of the Examination Office. A doctor's excuse which merely states that you were incapable of working or sitting an exam is insufficient for this purpose. The medical certificate must provide a brief description of your medical condition. Therefore, it is necessary for you to release your doctor from their obligation of medical confidentiality. This does not mean your doctor must provide an exact diagnosis, but rather state how the illness affected you physically and/or mentally. This is in accordance with the Data Protection Act. The form needed for reporting your illness is called "[Withdrawal from Exams due to Illness \(Master of Science\)](#)" and located on the [Examination Office homepage](#).

Use the form from the Examination Office for your medical certificate.

Print out this form before you go to your doctor. Have him/her fill and sign it, then bring the form immediately to the Examination Office. Immediately means within three working days after the examination. For example, if the exam took place on a Friday, you must present the doctor's excuse to the Examination Office no later than the following Wednesday. During the pandemic, it is sufficient if the form reaches the examination office by e-mail within the three day deadline. However, you still have to send a hard copy of the form by post.

If you start taking an exam, you thereby automatically declare that you are fit to take the exam. You should therefore consider before sitting an exam whether you are really 100 % in the state to take it. If the symptoms start while you are taking the exam, (for example sickness, headaches...) please inform the examiner/supervisor immediately (that means before the time given for the exam is over), submit your exam paper, leave the room and go straight to the doctor. Once you have completed the exam it is almost impossible to withdraw from it.

It is also important to know that the doctor's consultation has to take place on the same day of the examination. If your general practitioner should not be available on that day, you will have to see someone else or go to the emergency clinic (Notfallpraxis der Kassenärztlichen Vereinigung, Hugstetter Straße 55, 79106 Freiburg, Tel: 116 117, no area code needed).

Collect and keep all your medical records such as doctor's excuses and reports. Such documents are helpful in case you need to have deadlines extended or for the calculation of your credit point balance (extension).

1.1.8.11 Personal/Other Reasons

If you should face personal problems (for example illness/death of a family member, separation from your boyfriend/girlfriend) during the examination preparation or during the examination period, it is important that you immediately contact the examination office or program coordinator or study advisor to explain your situation. Depending on the reasons presented we will then try to find a solution with you. If you should take an exam despite of these problems, you will do that on your own risk. The examination regulations do NOT provide any regulation for cases of hardship, which means that we cannot offer you another attempt even if the reasons for your failing might be comprehensible.

1.1.8.12 Repeat Examinations

In principle, you are allowed to repeat every examination at least once. If you do not pass an examination (Grade 5.0), the examination office will automatically register you for the next exam offered. Normally, the repeat examinations are given during the examination period in the following semester. If you do not pass the examination the second time, then you have lost your right to continue your studies, unless you have not yet made use of the second repeat regulation (see 1.1.8.7).

You can repeat every examination at least once.

1.1.9 Be Informed!

It is part of the German education philosophy that you actively look for the information you need. Don't expect to be spoon-fed. However, you are welcome to ask, if you do not find the information needed on the web pages or in this manual.

1.1.9.1 The Internet is Your Main Source of Information

When you are looking for information about your Embedded Systems Engineering studies, the internet is of course your primary source. This is where you can find most of the information that is relevant to your needs.

1.1.9.2 Examination Office

The Examination Office is responsible for the organization and administration of all examinations at the Faculty of Engineering.

Here you can find answers to questions about examination regulations, advice about difficult situations in your studies and so on. The Examination Office provides general notices, important links and special information regarding the Embedded Systems Engineering programs in the internet under: https://www.tf.uni-freiburg.de/en/faculty/central-services?set_language=en

The Examination Office can answer organizational questions about exams.

Anne-JulchenMüller, pruefungsamt@tf.uni-freiburg.de

Tel. 0761/203-8083, Bld. 101, Room 02-009

Office Hours: Monday, 2 – 4 pm, Tuesday and Thursday from 10 am – 12 pm

Susanne Stork, pruefungsamt@tf.uni-freiburg.de

Tel. 0761/203-8087, Bld. 101, Room 02-009

Office Hours: Monday, 2 - 4 pm, Tuesday and Thursday from 10 am – 12 pm

Due to the pandemic the examination office can currently not offer personal consultation hours. But they do offer telephonic consultation hours twice a week: Tue + Wed, 9:00 – 11:00 a.m.

1.1.9.3 Student Advising

If you have questions about your studies (how to make your personal schedule, which courses to choose, combine or postpone, etc.), you should turn to Student Advising for assistance. The Student Advisors for Embedded Systems Engineering are:

Martina Nopper, studienberatung@ese.uni-freiburg.de

Tel: 0761/203-8169, Bld. 101, Room 02-013a

Telephone hours for students: Mon + Thu, 9:00 – 11:30 a.m.

If you have questions, ask for advice!

Dr. Frank Goldschmidtboing, fgoldsch@imtek.uni-freiburg.de

Tel. 0761/203-7496, Bld. 102, Room 01-217

For questions about general student life (confirmation letters, scholarships, internships, jobs, administrative matters, etc.) please turn to

Ursula Epe, Program Coordinator at the Faculty of Engineering:

studienkoordination@tf.uni-freiburg.de

Tel.: 0761/203-8340 , Bld. 101, room 02 013a

No specific telephone hours. Just try Mon – Thu 9:00 – 12:00 and 13:00 – 15:00.

1.1.9.4 Departmental Student Committee ("Fachschaft")

In addition to representing all students on the Faculty Council, the Departmental Student Committee is involved in a wide range of other activities and provides a great deal of support not only for first semester undergraduate students. The committee organizes for example an orientation week for undergraduate students or games and barbecue evenings for all students.

The Departmental Student Committee internet address is:

<http://fachschaft.tf.uni-freiburg.de/>. Most of the website is in German, but there is also a page for international students in English.

Also on the student committee's website, you can find examination reports and copies of examinations from the previous semesters that you can use to help you prepare for your own exams: <http://db.fachschaft.tf/exams/quick-search>. (Please note: Due to copyright laws, you can only download past exams when using an internet connection from the University Network or with a university account.)

Contacting the Departmental Student Committee:

Questions can be sent to: fs@fachschaft.informatik.uni-freiburg.de.

Meetings:

The Departmental Student Committee meets once per week in Room 00-028 in Building 051. You can find out the date and time on the website. You are welcome to attend meetings, just drop by, even if you do not want to participate actively in the Committee's activities.

Consulting Hours:

If you have a question about your studies or a problem with a professor or instructor, you can talk about it in person with a Committee member during the weekly office hours. You can find out when the office will be open by checking the website. You can also send an e-mail with your concerns to the address already given.

The
Departmental
Student
Committee can
also help if you
have problems.

1.1.9.5 Mentors and Professors

Every ESE student will have a professor as his/her personal mentor. Approximately two weeks after the beginning of the semester, you will be notified by e-mail who the mentor is that has been assigned to you. It is recommended to meet your mentor at least once per semester, if necessary more often. If your mentor does not send you an invitation, please ask them for

an appointment. You may discuss with your mentor all issues, which may arise during your studies. Your mentor might also be able to help you to find a student job or to study one semester abroad.

Professors and their assistants are available to recommend additional technical literature, or help you quickly find solutions to problems within their areas of expertise. So do not be shy about asking questions during a lecture or going to the office hours held by your professors and assistants. They also welcome your feedback and are concerned about your well-being. Each lab or chair has their own internet site where you can find information about the ongoing research projects, lectures and courses offered as well as the contact data and (if applicable) consulting hours. All contact data for the Microsystems Engineering professors can be found on the internet at: <http://www.imtek.de/laboratories>. For the Computer Science professors, you can find it at: <http://www.informatik.uni-freiburg.de/divisions>.

Most professors and assistants are happy to answer subject related questions.

1.1.9.6 Equal Opportunity Commissioner

The Equal Opportunity Commissioners for the Faculty of Engineering are Prof. Dr. Andreas Podelski (Computer Science) and Dr. Maria Asplund (Microsystems Engineering). They represent issues of special interest to women students on numerous Faculty committees. They are also the contact person for women with questions about their studies or student life in the University environment. You can reach Prof. Podelski and his deputy Dr. Asplund under the following addresses:

Prof. Dr. Andreas Podelski
Department of Computer Science
Georges-Köhler-Allee 052, Room 00-017
79110 Freiburg
Tel.: 0761/ 203-8241
podelski@informatik.uni-freiburg.de

Prof. Dr. Peter Woias
Department of Microsystes Engineering
Georges-Köhler-Allee 102
79110 Freiburg
Tel.: 0761/203-7491
woias@imtek.uni-freiburg.de

The Equal Opportunity Commissioners at the Faculty of Engineering do not have a separate internet site. So here is the address for the University Equal Opportunity Commissioner: <http://www.gleichstellungsbuero.uni-freiburg.de/en/UniversityEqualOpportunitiesOfficer>

1.1.9.7 Faculty Internet Presence

The internet presence of the Faculty of Engineering is concerned with matters that address all students. This is the place to find information about important dates and deadlines, various departmental offices (for example the Examination Office or Library), industry placements and much more. The

Check out the A-Z study FAQs

internet address is: <http://www.tf.uni-freiburg.de/>

1.1.9.7 Departments' Internet Presence

The professors and their staff usually post information about the lectures they offer, master thesis topics, research areas on the department websites. The Faculty of Engineering has three departments:

- [Department of Computer Science \(IIF\)](#)
- [Department of Microsystems Engineering \(IMTEK\)](#)
- [Department of Sustainable Engineering \(INATECH\)](#)

You will find the websites of each professor/chair by clicking on 'Divisions' or 'Laboratories'.

1.1.10 Freiburg during the COVID-19 pandemic

The city of Freiburg was affected by the coronavirus pandemic fairly early. The first case of a patient infected with the novel coronavirus in Germany was reported on January the 28th 2020. This first case occurred also in southern Germany, in the city of Munich. In the eastern French region of Alsace, the first few cases were recorded at the same time. Freiburg is situated 20 kilometres from the French border and enjoys close contacts with the areas to the left of the river Rhine. In Freiburg, the first few cases were registered on February 28th 2020. A company around the corner of the faculty of engineering was closed that day by the municipal health office. Due to the rapid spread in Alsace, the bordering region was listed as a hotspot by the federal Robert-Koch-Institut on March 11th. In addition to the closeness of the Alsatian hotspot, Alpine tourism might also have contributed to a quick onset of the pandemic in Freiburg. The institutional response to the early pandemic in Freiburg began quickly after the deterioration of the situation across the French border. Some restrictions on gatherings larger than 50 people were issued on March 13th by the mayor's office. On March 19th, Freiburg issued the first stay-at-home order in all of Germany, valid from March 21st. The small city of Freiburg led the way for later „lockdowns“ of entire states of the federal republic. The lockdown consisted of a legal „prohibition of access to public spaces“ which made exemptions to work-related travel and commuting as well as recreational access for small groups. Use of public spaces for gatherings was however banned. Restaurants and shops were closed by later orders. The lockdown as such was therefore a lot less strict than the one in place in France or Spain, as many people used the surrounding countryside and the Black Forest foothills for extended walks or sports. In the end, the lockdown proved to be effective: the large university clinic of Freiburg was not overwhelmed by Covid patients. Public orders are communicated via the website of the municipality, also state-wide orders are effective which are communicated via <https://www.baden-wuerttemberg.de/>. The local newspaper Badische Zeitung proved to be very useful to keep track of local developments (in German): <https://www.badische-zeitung.de/>

1.1.10.1 University teaching during the summer term 2021

The university is currently in level 5, meaning that courses are taught mostly via the [ILIAS](#) platform maintained by the university, libraries are open but you need to book a seat via HisinOne. Whilst the most important information is communicated via ILIAS, teachers are free to make use of other services such as the university-provided BigBlueButton or Videoportal (Freiburg's answer to Youtube). Also, common external services are used such as Zoom, Skype, Webex or others. The entry point to courses is in almost all cases the courses' ILIAS page. Presence is in many cases required only for lab courses, excursions or exams. In these cases, rules on hygienic behaviour, distance, and mask wearing had to be observed.

In the summer semester 2021 all courses (except lab courses and projects) can be taken online. Written exams can only be taken on-campus.

International students who cannot come to Freiburg in the summer semester 2021 can matriculate (enroll) as off-campus students. However, you should be aware that most of the exams are written exams which can only be taken in Freiburg. The exams will take place between 15 August and 30 September 2021. If you cannot be in Freiburg in August, you will have to postpone the exams to a later semester. This may lead to an extension of your study duration by one semester or more. Furthermore, you should consider that courses or tutorials, which are streamed live, might take place at inconvenient times for you, depending on where you are located.

Please also take note of the information regarding teaching on our [faculty's website](#) and please check your inbox regularly! Sometimes, teachers email vital information such as ILIAS links and passwords. More general information about corona restrictions at the university can be found on the following website: <https://uni-freiburg.de/university/topics-in-focus/corona/>.

1.2 The M.Sc. Embedded Systems Engineering Curriculum

1.2.1 Mandatory Courses

The curriculum of Embedded Systems Engineering has been designed with the winter semester being the first semester. Therefore, most of the mandatory courses are offered in the winter semester. However, it is not a problem at all to enroll into the program in the summer semester and start it by taking elective courses.

In Embedded Systems Engineering you have five **mandatory courses**:

- Cyber-Physical Systems - Discrete Models (winter semester / in English)
- Modelling and System Identification (winter semester / in English)
- Sensorik/Aktorik (winter semester / in German) **OR** Sensors (winter semester / in English)

- Assembly and Packaging Technology (winter semester: in German, summer semester: in English)
- Microelectronics (winter semester / in English)

In addition to these five courses, you have to choose either two **key modules** in Computer Science or one key course and one specialization course.

The **key modules** offered by the Department of Computer Science are:

- Algorithm Theory (winter semester / always in English)
- Image Processing and Computer Graphics (winter semester / always in English)
- Databases and Information Systems (winter semester / always in German)
- Foundations of Artificial Intelligence (summer semester, always in English)
- Software Engineering (summer semester, will alternate between English and German)
- Computer Architecture (summer semester, will alternate between English and German)

1.2.2 Specialization Courses in Computer Science

There are so many **specialization courses** offered by the Department of Computer Science, that we cannot list them here. Please have a look at the course catalog.

The **Course Catalog** ("Vorlesungsverzeichnis") shows which courses are offered in a given semester. You will find it in HisinOne under 'studies offered', 'show university course catalog'. Then select 'Faculty of Engineering', 'Master of Science', 'Embedded Systems Engineering PO 2012', 'Mandatory Modules', and 'Specialization Modules in Computer Science'.

Have a look at the Course Catalog to see which courses are being offered in a given semester.

1.2.3 Elective Courses (Concentrations)

You will choose your **elective courses** from two concentration areas.

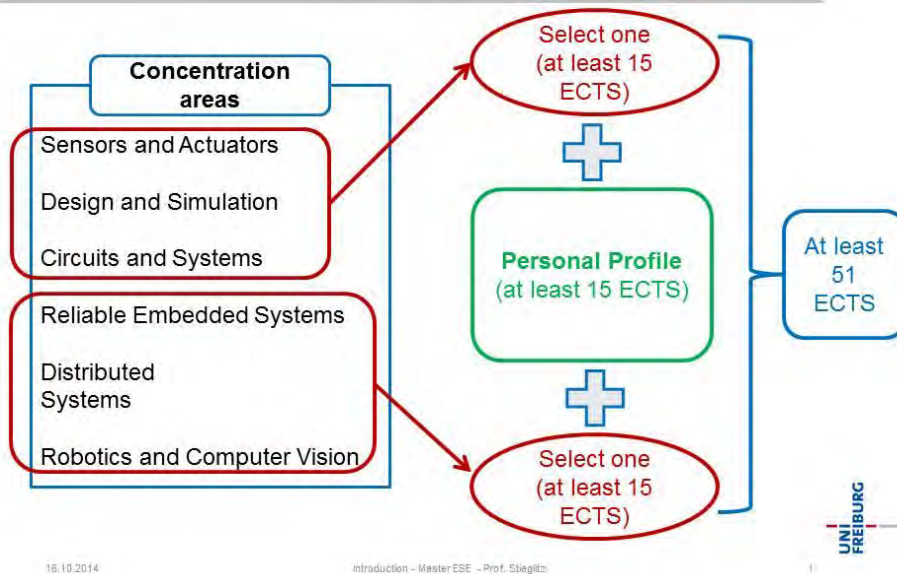
One of your chosen concentration areas has to be a technical area, the other one a computer science area.

In addition, you have an area called '**Personal Profile**'. Here you can choose any course offered by the Faculty of Engineering at postgraduate level.

The following graphic shows how many ECTS credit points you have to take in each area:



Concentrations and Personal Profile



1.2.4 Conditional Courses ("Auflagen")

Some of you have been admitted under the condition that they successfully pass one or several extra courses by the end of the second semester. This is stated in your admission letter. If you are not sure whether you have received a conditional admission, please ask the program coordinator.

You have two attempts to pass the respective exam(s). It is therefore recommended in the first year to focus on the completion of this/these additional course(s) and exam(s) and not to overload your schedule with too many other courses. If one of the conditional courses should clash with one of the mandatory courses, please take the conditional course first. You can still take the mandatory course in the third semester. The program coordinator will register you for any conditional course. However, you do have to **register for the exam on your own**, using the [General Registration Form](#) from our website.

1.2.5 Module Handbook (Syllabus) and Course Catalog

To find out which courses are being offered in Embedded Systems Engineering in general (not only in the current semester), you can check out the **module handbook**. Here you can find a detailed description of each course offered, its course language, whether it is offered in the winter or summer semester and which books are recommended. You will find the module handbook in [HisinOne](#). Click on the button "Studies offered", where you can go to "View module handbooks". Then enter "Embedded Systems Engineering" in the field for "Subject" and under Degree select "Master of Science". You can view all modules on offer by clicking on the tree structure icon on the left.

Module handbook = syllabus

The **Course Catalog** ("Vorlesungsverzeichnis") shows which courses are offered in a given semester. You can find the Course Catalog online in [HisinOne](#). Just go to "studies offered" and "show university course catalog". Then select "Technische Fakultät", "Master of Science", "Embedded Systems Engineering", PO 2012.

Course catalog
= what is
offered this
semester?

1.2.6 Master Thesis

It is strongly recommended to write the thesis about a topic that is related to one of your chosen concentration areas. The thesis has to be submitted within 6 months.

Most supervisors will ask you to write the thesis using LaTeX. If you are not familiar with this software, you can take a LaTeX course at the computer pool. Alternatively, you may be able to use Lyx. You can find templates for LaTeX and other formats the website of the student representation:

<http://fachschaft.tf.uni-freiburg.de/informationen/dokumentvorlagen>

1.2.6.1 Plagiarism

Plagiarism is commonly defined as "the practice of taking someone else's work or ideas and passing them off as one's own" (Oxford American Dictionary, Digital Version 1.0.1, 2005).

Important: Papers, exams or exercise sheets in which plagiarism is detected are considered as failed.

Guidelines for avoiding plagiarism include the following:

- Cite all sources of information and ideas (a) where you use them and (b) each time you use them. However, you need not have citations for propositions that qualify as common knowledge.
- If you quote directly from a source, put it in quotation marks (or indent it if it is a long quote) and cite it immediately thereafter. It is not acceptable simply to take a quote, change a few words, and omit the quotation marks. You are still presenting the other person's expression rather than your own.
- Write in your own voice. The paper is to be your analysis, not someone else's. You can easily bring in the work of others by using forms such as "According to Smith...", "The Jones study found that...", or "Several studies have concluded that..." etc. Sometimes you can simply assert facts or findings by saying them and then following them directly with citations. Conversely, you can write about your own views or analysis by saying "In my view...", "My analysis is that ...", "Based on my experience..." or other such forms.
- Most of the paper should be in your own words. Direct quotations rarely constitute even 10 percent of a paper, and usually much less. An exception might be when a paper requires close analysis of a fixed text, such as a statute or regulation.
- The last [or second] page of your paper should be a signed declaration which says: I herewith declare that I have written this paper on my own

and that I have not used any other sources and materials than those indicated. I properly cited the materials I have relied upon.⁵

This does not only apply to your master thesis or papers you have to submit during your studies. You also have to follow these regulations when submitting exercise sheets or reports about lab experiments!

There is a very helpful course called 'Scientific Writing and Presentation' offered in the 'Personal Profile' area. If you take this course, you will be perfectly prepared for writing your thesis.

1.2.7 German Language Courses

Information has been provided by e-mail. If you didn't receive such an email, please contact studienkoordination@tf.uni-freiburg.de.

1.3 How Studying Works

1.3.1 Lectures

In this section, we would like to give you a few tips about studying in general, and also some suggestions about how you can study more effectively and efficiently. With time, you will discover for yourself which study habits and methods are best for you.

1.3.1.1 Note-taking, Professors' Lecture Notes and Literature

The notes you take during a lecture are invaluable because you have written down everything which seemed important to you in class. Further, it is easier for you to later go back and find particular points in your own notes. Sometimes, copies of notes written by your fellow students can also be helpful. You can use them to correct any mistakes you might have made when copying things from the board (as long as your professor wrote down the information correctly in the first place). It is quite unlikely that you and your classmate would have made the exact same mistake when copying something down. Particularly in mathematics courses, it is especially important to have copied down all the figures and symbols correctly. That is why we recommend that you copy notes from one of your classmates as part of your exam preparation. If the professor has provided a copy of their own lecture notes, you can compare your notes with it. But even professors can make mistakes, so if something seems strange or unusual to you, first have a look at the textbook. If you do not find an answer here, ask the professor or their assistant. You need to pay particular attention to textbooks in cases when you have great interest in a certain subject, if your notes are unclear or you have decided to learn the material through self-study. Going through and studying textbooks might take a lot of time, because you first have to get used to the symbols and terms used by the author. Nevertheless, learning how to obtain and use information from assorted reference sources is a basic principle of scientific research.

Studying background literature is important.

Most professors use PowerPoint slides as instructional aides during their

lectures. They normally make the slides available on the internet for downloading at least one day before the lecture takes place. You can print these slides and write down your notes directly on the copies. This has the advantage of you only having to supplement the important points which already appear on your copies.

1.3.1.2 Going to Class vs. Self-Study

Under certain circumstances, it may be necessary to learn the material being presented in a particular class by means of self-study. This is the case, for example, when two lectures are being given at the same time.

Self-study requires a lot of discipline. Always make sure you regularly copy notes from a classmate who is attending the course in person. Try and keep up, meaning learn the material as it is being presented in class. If the professor's lectures are based closely on a book, then we suggest always reading ahead. Then at the end of the semester, you have a bit of breathing space and it is not so bad if you fall a bit behind. There are many advantages to attending the class lectures. Professors often say things which you cannot read in any book. These are often anecdotes from everyday life, or interesting comments about current topics. Of course, attending a class means you have the chance to ask the instructor questions during and after the lecture. This is also possible if you are doing self-study, it just takes more time and effort.

You can ask questions during lectures.

Recorded lectures incorporate both forms. Here, the lecture is recorded while the professor is giving it. This way, the advantages of attending the class in person and self-study are combined. If you have to miss a class for some reason, you can watch the lecture at home. This gives you more flexibility in choosing the time and place for hearing a lecture. A problem here can be that you do not attend the lecture and then fail to view it later. Please try to avoid doing this. Make a point of watching the lecture you missed before the next live one is given. Otherwise, it is usually quite difficult to catch up with the material you have missed. You will find the recorded lectures either in [ILIAS](#) or on a webpage whose link is given to you by the lecturer.

1.3.1.3 Tutorial Exercises

1.3.1.3.1 Why Do the Exercises and are They Required?

Tutorials and the exercise sheets you get are designed to expand on the material covered in the lecture. Working through the exercises is the very best way to prepare for an exam. If you are mostly able to do the exercises correctly, then you should be well on the way to being prepared for the examination. In some cases, the exercises are a pass/fail assessment ("Studienleistung", see 1.1.8.1). Whether you have to submit all the exercise sheets or only some of them, or even achieve a minimum number of points in order to successfully complete the pass/fail assessment, will be communicated by the lecturer in the first session. But even if the exercises should not be a pass/fail assessment, it is strongly recommended to do them.

Doing the exercises is the best way to prepare for an exam.

1.3.1.3.2 How Do I Work Through Exercises?

Always make sure you understand the question or problem that needs solving before you start working. You also need to know what form the solution needs to take. The hardest part is getting from how the problem is being posed to the solution. There is no set way of doing this. You will normally need to use your intuition and the knowledge you have acquired during the lecture.

1.3.1.3.3 How Do I Present the Solution to the Exercise?

You need to write down your solution in a way that is clear and well organized so that your tutor will be able to read and correct it without difficulty. The most important sections should be highlighted in some way (for example the solutions to mathematical problems). Your tutors, of course, will greatly appreciate it if you type your answers on a computer and print them out. If you turn in handwritten answers, it is a good idea to re-write the solutions so they are readable and understandable. In most cases, electronic exercises will be set, which means you have to create a PDF or PS file and upload it to a given portal.

1.3.1.3.4 Group Work, Copying and Using Specialized Literature

It can be very useful to work on difficult exercises in a group. By doing so, you are confronted with the terminology used in the lecture and can discuss the lecture subject and themes with your classmates. However, you should only do this, if the lecturer does not insist on everyone doing the exercises by himself. Our experience has shown that it is extremely difficult to succeed in your studies without the use of study groups and the ongoing exchange of ideas and information with your fellow students. Don't choose your study group members by sympathy or nationality only! Make sure to use the resources of fellow students coming from different academic backgrounds.

Work through difficult exercises in a group.

Beware of just blindly copying down the work others have done on the exercise sheets. This is a complete waste of time. Only if you are able to follow and understand how the solution was reached, will you have learnt anything. That is why you need to work through as many exercises as possible without outside help.

Usually, the slides and professor's notes from the lectures and your own notes should be enough to solve the exercise. It can also be helpful to do a bit of research in books, because there you can sometimes find the needed solution to the given problem, or a variation of it. This helps you solve problems more easily. You will find a list of recommended text books in the description of each course, stated in the course catalog. If not, feel free to ask the lecturer.

1.3.1.4 Examination Preparation

The exercises you receive in the tutorials are a great tool to use when preparing for your examinations. In many classes, the problems found in these exercises have about the same level of difficulty as what you will see on the examination. You will recognize this if: you have a sound knowledge of the material and are able to work through an exercise sheet on your own in about

two to four hours. If you need this much time for just one exercise, you will have problems to pass the final examination. Ask around amongst your classmates to find out how much time they needed for an exercise as a way of checking your own level.

The best method for examination preparation is to study and do old exams, especially if they were prepared by the same instructor. This way you can get used to the style used for the exercises and see if you are able to solve the problems in the time assigned. In addition to the old examinations, it also makes sense to work through old exercise handouts as part of your preparation. Sometimes, not all topic areas are presented in exercise form during a particular semester. By working through exercise handouts from previous semesters, you have practice with topics which may not have been worked on in your tutorial. They can also give you extra practice in areas where you want to (or need to) do more work. Carefully read through your notes, and review the slides and professor's notes once more. It may be that during an exam, you will have to know particular phrases and definitions in order to answer certain questions. So take this advice seriously: memorize phrases and definitions! Study sessions in small groups shortly before the examination can be very beneficial. You can learn terminology and solve problems together. Most of your classmates will already have worked intensively on learning the material, so there will be a good basis for discussing any questions or problems. It may be that you have underestimated the importance of a particular topic area. You will normally be able to see if this is so when working with a group.

Exam
Preparation:
Work through
old handouts
and exams.

You can use the internet to look for and download old examinations on the Departmental Student Representative Committee homepage at: <http://db.fachschaft.tf/exams/quick-search>

1.3.1.5 Self-discipline and Self-tracking

No one will constantly be keeping track of your work and progress. You have the freedom to decide for yourself how you structure your studies. This is why it is very important to keep track of your progress. Set goals and make a plan for reaching them.

2 Organisational Matters

2.1 Preparing for Your First Semester

2.1.1 How to Get to the Faculty of Engineering

The means of transport to get to the campus of the Faculty of Engineering is tram no. 4, direction "Messe", which runs every 10 minutes. The stop at which you have to get off is called "Technische Fakultät".

There is also a local commuter train ("Breisgau S-Bahn") going from Freiburg central station to "Breisach". The train typically leaves from Track 5. Get off at the stop "Freiburg Messe / Universität" which is either one or two stops after the railway station (3-4 minutes). Trains generally run every hour. The stop

"Freiburg Messe / Universität" is directly on campus.

Once on campus, you will find your way around with the following map:



- ① Building 101 (Deans' office, library, examination office, program coordinator's office)
- ② Building 102, IMTEK
- ③ Building 103, IMTEK
- ④ Building 104, IMTEK
- ⑥ Building 082 (Cafeteria, computer pools)
- ⑦ Building 051
- ⑧ Building 052
- ⑬–⑳ Building 071 - 073, Campus dormitories I, II and III

2.1.2 Orientation Days at the Faculty of Engineering

In the week before the beginning of the courses, the Faculty of Engineering will offer several activities and meetings for new Master students, such as help with the administrative tasks (health insurance, residence registration, bank account), information about the study program and the organization of your studies. It is strongly recommended to participate in these activities.

2.2 Buildings and Rooms

2.2.1 Faculty of Engineering

One of the most important buildings is number 101. It houses the Faculty Library, the Dean's Office, the Examination Office and the office of the study advisor and program coordinator. In addition, there are tutorial rooms and two large lecture halls (101-026, 101-036). Building 082 is another building of central importance for the Faculty of Engineering. The cafeteria (Mensa), a large lecture hall (082-006) and the computer pools are located here. The professorships are in buildings 051, 052, 079, 080, 102, 103, 104 and 106. The Departmental Student Committee and more tutorial rooms are located in building 051. The Faculty of Engineering is directly next to the new Trade Fair Grounds. The way is clearly marked with numerous signs around the city directing visitors to the "Neue Messe".

[Mensa Airport](#)
[PC Pools](#)
[Lecture Halls](#)
[Library](#)

2.2.2 Science Campus ("Institutsviertel")

The Science Campus is mainly interesting for undergraduate students. The most important buildings are the cafeteria, the Round Building ("Rundbau"), the Faculty of Mathematics and the Computer Center. Many lectures in mathematics are held in the "Rundbau". In the Faculty of Mathematics Building, you will find a research library and a lending library for mathematicians and natural scientists. The Computer Center has PC Pools available for your use. The Science Campus is very close to the main train station. You can reach it walking from the main train station on the Bismarckallee direction "Zähringen". The Bismarckallee merges with the Stefan-Meier-Straße, which is where the Science Campus is located.

2.2.3 University Central Campus

At the central campus, you will find the University Library, the Main Cafeteria, and the "Kollegien" buildings I to IV (KG I to IV). You can reach the central campus by taking any tram from the main train station in the direction "Bertoldsbrunnen". Exit the tram at the Freiburg City Theatre, "Stadttheater", just one stop away from the main train station. From the other direction, you can reach the University with any tram traveling direction "Hauptbahnhof". Again, exit at the "Stadttheater".

2.3 Libraries

2.3.1 Library User Card

Your UniCard serves not only as your student identity card, but also your library user's card. The University Library ("Universitätsbibliothek" = UB) account number on your card is only valid after having registered online. To register, click here (website is in German):

[UniCard =
Library card](#)

1. Click on "Ausleihkonto" (right hand side)
2. Enter your university user name and password
3. Scroll down and click on "UB-Konto mit Unicard neu eröffnen"

... or go to the library and ask them to activate your account.

2.3.2 Loss of Your Library User Card (same as UniCard)

If you lose your library user card (meaning UniCard that has been activated for library use), you are required to report it immediately to the lending section (tel.: 0761/203-3920) or at the service desk in UB 1 (tel.: 0761/203-3918 or at the Faculty library (tel.: 0761/203-8003). Your account will then be blocked because someone else could use your card to borrow books on your account, and according to the Regulations of Use, you are liable for any misuse of your account. You can apply for a new card at the Student Service Center in Sedanstraße 6 (see 2.7.3).

If you lose your UniCard, inform the Library immediately.

2.3.3 Borrowing Books

If you are looking for a specific book or article, you should first of all search for it in the library online catalog: <http://www.ub.uni-freiburg.de/?id=opac>. There, you will see, if the book is available and where it is located.

At the main library (UB) and at the Faculty of Engineering, books may be checked out for 28 days and you can extend the lending period for another 28 days a total of three times. You may not extend the time if someone else has placed the book on reserve. If there is no copy available of the book you want to borrow, you can have it reserved for you. This means it will no longer be able to be extended and you will be informed as soon as a copy has been returned. You can check out a maximum of 100 books at any one time.

The university does not only have books. As a user you also have access to a lot of [electronic media](#) and scientific articles. Check it out!

If you forget to return a book in time, you will have to pay an overdue fee (€ 1,50 per book for the first week, € 5,00 for the second week and so on). The library will inform you about this by e-mail. As a courtesy to your fellow students who also need to use the books, please always make sure to return the books on the due date or to extend the lending period online.

Please handle the books with care! If you return a damaged book, you will have to pay for it.

2.3.4 Libraries Relevant for Embedded Systems Engineers

Here are the four libraries which are of greatest relevance for computer science students:

- University Library (includes Text Book Collection I)
- Library at the Faculty of Engineering

- Text Book Collection II
- Library at the Faculty of Mathematics

University Library:

The main university library (called UB) is located at Platz der Universität 2, next to the "Stadttheater". It is open daily from 7am–12am and offers place for self and group study. More information: <https://www.ub.uni-freiburg.de/>

Faculty of Engineering Library

This library has books available especially for computer scientists and engineers and is located directly on our campus:

Faculty of Engineering Library/ Fakultätsbibliothek der Technischen Fakultät

Georges-Köhler-Allee 101

79110 Freiburg

Tel.: 0761/203-8003

Contact: Susanne Hauser

E-mail: techbib@tf.uni-freiburg.de

Website: <http://www.ub.uni-freiburg.de/?id=3281>

Due to the new Corona ordinance of the state of Baden-Württemberg, we can currently offer 10 learning places. The opening hours are: Monday to Friday from 10 am to 3 pm. The use of the learning place is only possible via pre-registration in HISinOne (reservation always from 11 am of the previous working day until 7.45 am of the day of use):

HISinOne -> Log in -> Studies offered -> Search for courses in the summer semester 2021 -> Search words: Zugang Bibliothek der Technischen Fakultät.

Medical or FFP2 masks must be worn at all times during your stay in the library.

Borrowing is still possible without registration - please note that only one person is allowed to enter the borrowing area.

If you need any books that are not yet part of the Faculty of Engineering library collection, please feel free to contact Mrs. Hauser and ask her whether this book could be ordered.

Textbook Collection II

You can borrow books about mathematics, natural sciences and medicine from this library. The Textbook Collection II homepage provides current information, for example about opening times during the semester breaks, at: <http://www3.ub.uni-freiburg.de/index.php?id=68>

The Faculty of Mathematics Library

At the Faculty of Mathematics Library, you can find books from all areas of mathematics.

Faculty of Mathematics Library/Mathematisches Institut Bibliothek
Eckerstraße 1, Room 022 (Ground Floor)
79104 Freiburg
Tel.: 0761/203-5543
E-mail: mathbib@ub.uni-freiburg.de

This library is open only to authorized users. To be authorized you need to contact the librarian by telephone and have your UniCard activated to allow you access. The homepage for the Faculty of Mathematics Research Library is found at: <http://www.ub.uni-freiburg.de/?id=3413>

2.4 Computer Pools at the Faculty of Engineering

2.4.1 Computer Pools in Building 082

2.4.1.1 Location and Purpose

The Faculty of Engineering Pool is located in the cafeteria building (Bld. 082) at the Faculty of Engineering. Pool means a collection of computers and peripheral devices, for example printers, which are networked and all found in one room. There are several such pool rooms in Building 082 on the ground floor. The purpose of the computer pools is to provide you with a computer work station that you can use during your studies. An extensive software package is installed on these computers. You can also print out lecture visuals and professors' notes and download at high speed. Printing costs 0,05 Euro per page (in black and white). Every student can print an amount of pages worth 6 Euro per month for free. If you print more, you will have to pay for it (currently closed due to Covid-19).

2.4.1.2 Faculty of Engineering User Account

To study at the Faculty of Engineering it is crucial to have a Faculty of Engineering user account. Between April 9 and April 19th you will receive an email from the Faculty of Engineering pool manager (or one of his assistants) with your user name and initial password. If you shouldn't get such an email (please check also your spam folder), please contact the pool manager.

Approximately once a year, you will receive an e-mail asking you if you wish to extend your account. If you do not extend your account, it will be automatically blocked and then cancelled. The first place to check for your questions about system and network services is this URL: <http://support.informatik.uni-freiburg.de>. You can reach the Pool Managers

at:

Faculty of Engineering
Building 082, Room 01-021, 79110 Freiburg
E-mail: poolmgr@informatik.uni-freiburg.de
Homepage: <https://support.informatik.uni-freiburg.de/>
or use the contact form on the homepage.

2.4.1.3 E-mail Address

After your account for the Faculty computer pool has been set up and successfully activated, you are reachable via e-mail. General information about e-mail addresses and their features can be found on the Pool Managers' internet site.

You can find out here information about how the Faculty e-mail addresses are compiled, which mail servers are available and how to configure your account. Your e-mail address is: Username@tf.uni-freiburg.de or Username@tf.uni-freiburg.de or Username@cs.uni-freiburg.de. Replace the word 'Username' with your name as it appears on your account. If you have an account and an e-mail address, you will automatically be put on the mailing list 'Student'. The e-mails that reach you over this list will keep you informed about all the latest events and activities at the Faculty. In addition, you may sign up for the mailing list "Markt". The users on that list receive job offers, room offers or buy and sell offers (bicycles, text books etc.). To sign up, please go to <https://support.informatik.uni-freiburg.de/?run=account>, enter your user name and password, check "eintragen" and click on "Daten abfragen/ändern".

Please note: This email account is not the same as the one you can get from the university (see chapter 2.6.2). The one from the university is firstname.surname@domain.uni-freiburg.de (domains available are "students" or one of four planet names (pluto, uranus, ...)). If you opt for a university email account, please make sure to check incoming emails on **both** accounts (TF account **and** Uni account) or forward them to your preferred email account. Otherwise you will miss out on important information!

2.4.1.4 Opening Hours Computer Pools

(Currently closed due to Covid restrictions)
Pool room 028: Monday to Friday from 8 am to 7 pm
Pool room 021: Monday to Friday from 8 am to 7 pm
Pool room 029: Monday to Friday from 8 am to 7 pm

If you have activated your UniCard in MyAccount (see chapter 2.7 UniCard), you should be able to access the Pool Rooms 021 and 029 with your UniCard from the side entrance after 7 pm and on Saturdays and Sundays. If that should not work, please go to the Dean's Office ("Dekanat")

in building 101, 2nd floor and ask for your card to be activated.

2.4.2 PC Pools in Building 074

For Embedded Systems Engineering students, there is an additional Pool in Building 074 on the ground floor. You can use your university account here that you received via e-mail. However, there is no printer available. This pool is open Mon – Fri from 9 am to 8 pm.

2.5 WLAN (WiFi)

2.5.1 WLAN Installation

The WLAN network used by the university is called "eduroam". To connect, you enter the user name of your university account as follows: username@uni-freiburg.de. The password is the eduroam password you selected in MyAccount (see chapter 2.6.2). For laptops, VPN client might be necessary.

You will find detailed instructions for how to connect to our WLAN here:

<http://www.rz.uni-freiburg.de/services-en/netztel-en/wlan-vpn-en/vpnwlan-en?>

2.5.2 Where is WLAN Available?

As already mentioned, you can find Access Points all over the place at the Faculty of Engineering which you can use to connect to the University network. Access Points can also be found at numerous other faculties. To see an exact list of all the WLAN access points, go to the following address:

<http://www.rz.uni-freiburg.de/services/netztel/wlan-vpn/wlan-standorte>

2.6 Computer Center ("Rechenzentrum")

2.6.1 Location and Purpose

The university's Computer Center is located at the Science Campus at the following address:

University of Freiburg Computer Center

Hermann-Herder-Straße 10

79104 Freiburg

Tel.: 0761/203-4620

E-mail: sek@rz.uni-freiburg.de

Opening hours: https://www.rz.uni-freiburg.de/helpcenter-en/studentische_beratung_eng

The Computer Center serves many purposes. Some of them are:

2.6.1.1 Workstations

The Computer Center has PC workstations outfitted with standard software (for example Office package and graphic programs) available for students. You can use them for academic work, internet research or to check or write your e-mails. They can be found at the Main Computer Center. To use these computers you log in with your university user account.

2.6.1.2 WLAN

See 2.5.1

2.6.1.3 Printing Services

The Computer Center has printers available for students at the PC workstations so that you can print out your documents. At the Computer Center printing cost is paid through a separate printing account. You cannot print anything unless you have a positive balance in your printing account. You can pay into your printing account via MyAccount: <https://myaccount.uni-freiburg.de>.

2.6.2 University User Account

As a newly matriculated student, you should receive an e-mail and a letter with your user ID and initial password for your university account. The user ID will be the first letters of both, your first and your last name as well as a number. The password is just an initial password. You can manage your account by using the following URL: <https://myaccount.uni-freiburg.de>

The first time you log in, you have to take the following steps:

- Change the initial password by choosing a new one
- Check if the email address stated in MyAccount as your preferred email address is the one you want to use
- You may (but don't have to) set up a University Freiburg email account
- Choose your "eduroam" password for WiFi
- Activate your UniCard

More information: <https://www.rz.uni-freiburg.de/services-en/uniaccount-en/uabeantrag-en/uastudi-en>.

Only after having taken these steps, your user account will be activated.

If you have not received a user ID from the Computer Center, then you need to contact the Computer Center User Services at nutzerservice@rz.uni-freiburg.de. You should also contact the User Services if your password or user ID is not accepted. If you should forget your password, you can create a new one through MyAccount.

With your university user account you can use Campus Management ("HisinOne") for exam registration, checking exam results, printing a transcript of marks ("Leistungsübersicht") or a certificate of enrollment

("Studienbescheinigung").

Please note: As a student of the Faculty of Engineering you need two user accounts: The university user account for using the services of the Campus Management System HisinOne and the user account from the Faculty of Engineering (see 2.4.1.2) for being able to receive information from the Faculty of Engineering and to use the computer pools at the Faculty of Engineering.

2.7 UniCard, Student Identity (ID) Card

The UniCard is a chip card that bundles many functions. It makes everyday life and administrative procedures much easier. Its most important function is to serve as your official student ID card. You should have it with you at all times so that you can take advantage of the many bonuses and discounts available to you because of being a student. The UniCard simplifies various administrative procedures for students and University employees. The UniCard simplifies various administrative procedures for students and University employees. You can use it for cashless payment in the cafeterias, to borrow books from the library, to use the copy machines and to enter certain university facilities.

The UniCard team provides you with more information about the UniCard at: <http://www.studium.uni-freiburg.de/de/studierendenservices/unicard?searchterm=unicard>. This is the place to go with all your questions about the UniCard.

2.7.1 Functions

The UniCard has the following functions and features:

- Student ID

As explained above, your UniCard is your student ID card.

- Cashless payment in the Cafeterias ("Mensen")

Cashless
payment

You use your UniCard to pay in the University cafeterias to get the special rates for students and to avoid cash payment. In order to pay with your UniCard, it must first be loaded, meaning it needs to have a positive balance. You can load your UniCard through use of your EC bank Card at the add-value terminals. Information about where to find add-value terminals and cashless payment can be found under the following address: <http://www.swfr.de/en/food-beverages/chip-card/load-up/>

- Library User Card

This feature has already been explained in the Library section (chapter 2.3).

- Entrance to Buildings and Rooms

Access to the
Pool Rooms

At the Faculty of Engineering, you can enter some buildings and rooms outside of the normal opening hours by using your UniCard. (You can find out more about this in the section Computer Science and Microsystems Engineering Pool Rooms.)

- User ID for copy machines

UniCard =
Copy-Card

At the Faculty of Engineering, you can use your UniCard at the copy machines. The copying costs will be deducted from your UniCard balance.

- RVF Semester Ticket for Public Transportation ID Card

UniCard = ID
Card and
Validation for
your Semester
ticket

If you have an RVF Semester Ticket, you always have to have your UniCard and an official ID (e.g. your passport or residence permit) with you. If you did not buy the semester ticket online, you also have to carry – in addition to the UniCard and ID – a certificate of enrolment ("Studienbescheinigung"). Otherwise, your semester ticket is not valid and you will have to pay a fine.

2.7.2 Receiving Your UniCard

After matriculating at the University you will receive the UniCard automatically by post. (If you did the Off-Campus enrollment before coming to Freiburg, you can pick up your UniCard in the Service Center for Students in Sedanstrasse 6 through the window). The UniCard will be valid for 5 years - unless you complete your studies earlier than that (which as a Master student would be the normal case).

If you should not get the UniCard within 2-3 weeks after matriculation, please go to the UniCard service desk in Sedanstraße 6. It often happens that students do not give their complete address to the university administration when enrolling (for example, when you live in a student dorm, your address is only complete if it contains the street, house number, floor number and room number as well as the zip code and the city). Or, sometimes the student's name is not stated on the mailbox. In these cases, the postman will return the letter to the sender.

For more information, please contact the UniCard team at:

University of Freiburg
- UniCard -
Sedanstraße 6
79098 Freiburg
Tel.: 0761/203-8893
E-mail: unicard@uni-freiburg.de

You can find out the current office hour times on the internet site:

<http://www.studium.uni-freiburg.de/de/studierendenservices/unicard?searchterm=unicard>

2.7.3 UniCard Loss

If you lose your UniCard, you should have it cancelled immediately. To cancel your UniCard, contact the UniCard Team and give them your name (last name,

If Lost: Have
your UniCard
blocked
immediately.

first name) and your matriculation number. You can reach the UniCard Team via e-mail at: unicard@uni-freiburg.de. You can call the UniCard Team under the number 0761/203-8893. If you have lost your card and do not reach anyone by phone, make sure to leave a message on the mailbox or send an e-mail. When the UniCard Team gets your message, your UniCard will be blocked as soon as possible in order to prevent it being misused. You should consider the balance on your card to be the same as cash you have in your wallet. This means if you lose your UniCard, the balance on the card is gone too. In order to make you a new UniCard, you will have to pay € 10.

You must also immediately inform the University Library Lending Section about the loss of your UniCard under the number: 0761/203-3920. Your library user account will also be blocked because if someone else has your account number they could use the public OLAF places to borrow books using your account.

Please note: You must report the loss of your UniCard to the library separately because there will not be an exchange of information regarding UniCard losses between the Library and the UniCard team.

2.7.4 Extending Your Card

If you should be a student for more than 5 years (for example because you should be staying at the university for your Ph.D.) you will have to exchange your UniCard against a new one after the course of 5 years.

2.8 Registration and Fee Payment

Every semester, you must renew your registration as a student of the University of Freiburg. You will find the current demand of payment and the deadlines at http://www.studium.uni-freiburg.de/en/student-services/registration?searchterm=r%C3%BCckmeldung&set_language=en You must transfer the named amount before the registration period ends, otherwise, you will be ex-matriculated. Registration for the summer semester has to be done from January 15th – February 15th, registration for the winter semester from June 1st – August 15th.

You have to pay the fees every semester.

2.9 Cafeteria/Mensa

Currently the cafeterias are closed, but two of them (Rempartstrasse and Institutsviertel) offer take away meals.

The cafeteria ("Mensa") offers an inexpensive way for you to ensure that you have a healthy and balanced diet. The so-called Studierendenwerk (SWFR) operates four cafeterias in Freiburg. They are located in the Rempartstraße, at the Science Campus, in Littenweiler and at the Faculty of Engineering.

2.9.1 How Things Work at the Cafeteria:

Before you can eat at the cafeteria, your UniCard must be activated. You also need to make sure that you have used an add-value terminal to load a sufficient balance

into your account. This is how a typical visit to the cafeteria at the Faculty of Engineering works:

1. Queue up in the line.
2. Take a tray, knife, fork, spoon and napkin.
3. Have a look at the menu and decide which one of the two meals you want (one of them is always vegetarian).
4. When it's your turn, tell the ladies who serve the food, which meal you would like (or choose one of the already served meals).
5. You pay by putting your card on the bar code scanner at the checkout. Wait until the amount has been booked (green light), and then your payment is complete.
6. After paying, you can look around for a place to sit.
7. When you have finished eating, you must take back your tray to the tray return area and separate the remaining food, the plate and the cutlery.

First time in the cafeteria? Just do what everyone else does!

Some words you might need to know for your visit to the cafeteria:

English	German
Vegetarian	Vegetarisch
Beef/Veal	Rind or Kalb
Pork	Schwein
Chicken	Huhn, Hähnchen or Hühnchen
Turkey	Pute

2.9.2 Airport Cafeteria ("Mensa Flughafen")

The Airport Cafeteria is mainly used by students and staff of Computer Science, Embedded Systems, Microsystems and Sustainable Systems Engineering. Located on the premises of the Faculty of Engineering, this cafeteria is the smallest of those in Freiburg. Plans are being made to enlarge it, but realizing them will take quite some time. Until the renovation happens, the cafeteria here offers two daily specials.

Cafeteria Airport
 Georges-Köhler-Allee 082
 79110 Freiburg
 Opening Hours During the Semester:
 Mon to Thu 9 am to 3 pm
 Fri 9 am to 2:30 pm
 Lunch is served from :
 Mon to Fri 11:30 am to 1:30 pm

The Cafeteria for Computer Scientists and Engineers

A meal costs 2.75 Euro (without drinks).

You can have a look at the meal plan for the current week under the address:
<http://www.swfr.de/en/food-beverages/menus/mensa-flugplatz/>

Find out more information about the Airport Cafeteria under the URL that follows:

<http://www.swfr.de/en/food-beverages/canteens-cafes/mensa-flugplatz/>

2.10 Semester Ticket

2.10.1 What is a Semester Ticket and Where, and for How Long is it Valid?

The semester ticket is valid for using public transportation. It costs you € 94 per semester, and you can use it on the entire public transport network (bus, tramways, S-Bahn, local trains) in the greater Freiburg area (RVF). This area includes:

Ride half a year on buses, trams and trains for only € 94!

- The city of Freiburg
- The area Landkreis Breisgau-Hochschwarzwald
- The area Landkreis Emmendingen

Students at all of Freiburg's institutions of higher education can take advantage of this offer. The tickets are valid from October to March (winter semester) and from April to September (summer semester) and include the times between terms. When paying the semester fee to the university, every student makes a solidarity contribution of € 17 per semester which is included in the student activity fees you pay to the university. Because of this, you may use the public transport for free from 7:30 pm to 3:00 am, even if you have **not** purchased a semester ticket, but only, if you have downloaded a "19-Uhr-Nachweis" (7 pm ticket) from the following website:

<https://www.vag-onlineticket.de/index.php/product/93/show/0/0/0/0/buy>.

More information about the semester ticket can be found under the following URL: <https://www.rvf.de/en/fahrkarten-tarife/monatskarten-abos/semesterticket-for-students/>

2.10.2 Where Can I Buy a Semester Ticket?

It's best to buy the semester ticket or request a free 7 pm ticket from the VAG Online Shop, because then you'll only need to show official photo ID alongside your ticket during inspections. If you don't buy the ticket online, you'll need to show official photo ID, a matriculation (enrolment) certificate, and the UniCard.

2.11 Scholarships

The University of Freiburg participates in a scholarship scheme called "Deutschland-Stipendium". International students may apply for this scholarship of 300 Euro per month if they have completed their bachelors with a final grade of 1,5 or better (in the German grading system). For more information: <https://www.studium.uni-freiburg.de/en/counseling/scholarship-advising/deutschlandstipendium>.

If you need a full scholarship, covering all your expenses, we recommend you to read the following web page: <https://www.swfr.de/en/money/financial-aid/stipends/>.

In general, you should keep in mind that it is rather difficult for international students to get a scholarship from a German funding institution. Most scholarships require excellent grades, indigence and very good German proficiency. The only exception to that rule is the DAAD, but they do not offer scholarships for Master students from all nations. To find out, please have a look at their website: <https://www.daad.de/deutschland/stipendium/datenbank/en/21148-scholarship-database/>.

3 Your Daily Life Outside the University

3.1 Doctors and Emergency Numbers

In Germany you usually go to a general practitioner ("Allgemeinmediziner, Hausarzt") in the first place. If you need to see a specialist, the general practitioner will give you a transfer form ("Überweisung") which enables you to consult a specialist. If you don't know how to find an English-speaking doctor, you can inquire at the social services department of [SWFR](#).

If you need to see a doctor during the night or the weekend, you can call 116117 (no area code necessary) or go to the university hospital: Universitätsklinik Freiburg, Notfallpraxis der Kassenärztlichen Vereinigung, Hugstetter Strasse 55, ground floor (open on Mon, Tue and Thu 8:00 p.m. – midnight, Wed and Fri 4:00 p.m. – midnight, Sat and Sun 8:00 a.m. - midnight). **To make an emergency call, dial 110 (police) or 112 (fire department / emergency doctor).** Please save these numbers in your phone.

3.2 Accident and Liability Insurances

By means of paying the student services fee to SWFR, students are insured concerning accidents at the University.

In addition, **it is strongly recommended to contract a liability insurance** which covers the cost in case you damage something that belongs to somebody else (e.g. furniture in the rented room, books you have borrowed from the library). A good and cheap option is the liability insurance offered by [HUK 24](#). (Website only available in German). Also, most banks cooperate with an insurance company. You can therefore just ask the bank when opening your bank account in Germany, if they can offer you liability insurance ("Haftpflichtversicherung"). A decent liability insurance costs between 40 and 60 Euro per year.

3.3 Jobs

3.3.1 HiWi Jobs

HiWi is short for *Hilfswissenschaftler* which is a research assistant. As a student you are technically allowed to work up to 85 hours per month as a HiWi. If you want to earn some money or if you want to gain practical experience, it is recommended to look for a HiWi job that is closely related to your studies. There

are several ways how HiWi job vacancies are being posted:

- On the web pages of the different research groups of our faculty
- By e-mail to the student mailing list
- On the notice board in building 101, ground floor
- By word of mouth

If you already have experience in a certain field or if you know in which research group you would like to do your final project, it is best to just ask the respective staff members for a job. When applying for a job you should always send soft copies of your CV and transcript of marks (from Bachelor's and or Master's studies) and highlight in the e-mail those of your qualifications which match the job description. General inquiries by e-mail not containing these documents are often not answered.

3.3.2 Off-campus Student Jobs

There are five Fraunhofer Institutes (research institutes) in Freiburg who often offer student jobs. Just check out the nationwide Fraunhofer job database: <https://recruiting.fraunhofer.de/Jobs/1?Reset=G&lang=ger&searchFunction=10050&search1>

If you are looking for a job for the semester break or for short term jobs (working in the production of an industrial plant, helping people move houses, baby-sitting, or even playing Santa Claus in a kindergarten or school), you should check out Studijob: <https://www.swfr.de/en/money/studijob/job-placement-service/>

For more information: <https://www.tf.uni-freiburg.de/en/studies-and-teaching/a-to-z-study-faq/hiwi-and-other-student-jobs>.

3.4 Internships/Industrial Placements

An internship or industrial placement is not a mandatory part of the ESE curriculum. However, if you want to, you can do such internship voluntarily. The best time to do that is in the second year. If you combine the internship with a master thesis, you can still complete the Master program in four semesters. If not, you should be ready to stay one more semester. Internship offers can be found

- On the notice board of building 101 (ground floor)
- Via job portals in the internet
- Via the mailing list markt@tf.uni-freiburg.de

More information about these placements can be found at: <https://www.tf.uni-freiburg.de/en/studies-and-teaching/a-to-z-study-faq/internships>

However, it has to be said, that it is more common to write the thesis in one of the research groups of the Faculty of Engineering. Many professors are reluctant to supervise a thesis in cooperation with a company, because the focus of the company is to obtain a practical result, whereas the focus of the university is to teach you how to do scientific research. Also, if you write your thesis in a company you usually have to sign a confidentiality agreement with the result that

the company will own the copyright of your thesis and not you.

A good compromise may be to write your thesis with one of our IMTEK professors who is either a staff member of one of the Fraunhofer Institutes (Profs. Ambacher, Buse, Dehé, Eberl, Wöllenstein) or of [Hahn-Schickard](#) (e.g. Prof. Zengerle). Some professors also run projects with specific companies and are therefore more likely to agree to supervise a company thesis, if you want to do it in one of the companies they are already working with. In any case: Make sure not to sign any contract with a company before having found a supervisor.

4 Further Sources of Information and Assistance

4.1 Student Services ("Studierendenwerk")

The Student Services of Freiburg (SWFR) has about 300 employees serving over 40,000 students who are pursuing their higher education goals at the area's institutions of higher learning. In addition to those institutions in Freiburg, the Student Services are responsible for students in Furtwangen/Villingen-Schwenningen, Offenburg/Gengenbach and Kehl. The Student Services are financed in part through the 'student activity fee' which you pay to the university each semester.

The following highlights a few of the interesting services and activities offered by the Student Services. The **Studi-Tours** department regularly organizes short **trips and excursions**. Going on them is a great way to meet a lot of people from other faculties and countries. You can have a look at the current Student Services program of events at: <https://www.swfr.de/en/events/studitours/>

Student
Housing,
Financial Aid,
Excursions and
Advising

Studierendenwerk's **International Club** offers a buddy program, a tandem program (learning German with help of German students), a 'families for international friendship'" program and lots of cultural events. Just have a look at <http://www.swfr.de> and click on 'International' and 'International Club'.

In addition to running the cafeterias, the Student Services also operates various student **housing facilities**. You can get information about student housing here: <https://www.swfr.de/en/residence/student-residence/dormitories-in-freiburg/>

The Student Services also can give you information about, and help you find **financial aid** possibilities, for example with student loans and scholarships. For more details, contact the Student Services directly or have a look at the SWFR website.

At the Student Services, you can also get assistance and advice with such issues as legal questions, social or psychological problems (for example exam nerves) or finding a job or a room. More information can be found in the internet under: <https://www.swfr.de/en/social-services/counselling-services/>

You can also drop by the information office:
Student Services Freiburg
Basler Straße 2, 79100 Freiburg
Tel.: 0761/2101-200

E-mail: info@swfr.de

4.2 University Recreational Sport

The University of Freiburg offers a wide-variety of opportunities for its students to participate in athletics and sports on a recreational basis. You can take part in numerous sport classes at no charge. You can visit classes for competitive games like soccer, learn a martial art or indulge your passion for outdoor or individual sports. Or, maybe you are more interested in keeping fit with gymnastics, fitness training or dance? These are just a few of the activities available for you in the course program.

Sports: A good way to meet other students

The University Recreational Sport Program can be found at <http://www.hochschulsport.uni-freiburg.de>

You can register for courses online or visit the University Recreational Sport Office at:

University Recreational Sport Office at the University of Freiburg
Faculty of Sport und Sport Science
Schwarzwaldstraße 175, 79117 Freiburg
Tel.: 0761/203-45 13 or 4503
E-mail: ahs@sport.uni-freiburg.de

During the Covid pandemic, the university offers some online sports activities: <https://www.hochschulsport.uni-freiburg.de/hochschulsport-at-home>

4.3 Social Aspects

4.3.1 Meeting People

Due to Corona restrictions it is very difficult to meet other students and you can easily feel isolated sitting in your dorm room all day long, attending online lectures. Here are some tips how you can get through this phase:

Join the [WhatsApp group](#) of new Master students where you receive guidance from senior students

Join the [International Club](#)

Join the [Buddy program](#)

Get in touch with the [student union](#)

4.3.2 Where You Can Get Involved

There are many opportunities beyond your course of studies to be involved and take part in extra-curricular activities. There are various student committees, a debate club for students, the University Radio, the academic film club and many, many more places for you to meet new people with similar interests. Just ask your fellow students or flat mates.

Learn for life: get involved!

5 Annexe

5.1 An Overview of the Most Important Links

University Freiburg

<http://www.uni-freiburg.de/>

Department of Microsystems Engineering

<http://www.imtek.de/>

Department of Computer Science

<http://www.informatik.uni-freiburg.de/>

Faculty of Engineering

<https://www.tf.uni-freiburg.de/>

Semester dates

<https://www.studium.uni-freiburg.de/en/dates-deadlines-events/semester-dates-and-teaching-periods>

Deadlines for course registration

<https://www.tf.uni-freiburg.de/en/studies-and-teaching/calendar-dates>

Examination periods

<https://www.tf.uni-freiburg.de/en/studies-and-teaching/a-to-z-study-faq/de-registration-of-exams>

Deadlines for exam registration

<https://www.tf.uni-freiburg.de/en/studies-and-teaching/a-to-z-study-faq/de-registration-of-exams>

Online Lectures on ILIAS

<https://ilias.uni-freiburg.de/>

Contact persons

<http://www.tf.uni-freiburg.de/en/faculty/central-services>

HisinOne (for course and exam registration, course catalog, etc.)

<https://campus.uni-freiburg.de/>

Pool Manager, Faculty of Engineering

<http://poolmgr.informatik.uni-freiburg.de/>

WLAN (WiFi)

<http://www.rz.uni-freiburg.de/services-en/netztel-en/wlan-vpn-en/vpnwlan-en?>

Student Services

<http://www.swfr.de/en/>

German language courses

<http://www.sli.uni-freiburg.de/german>

International Admissions and Services

<http://www.studium.uni-freiburg.de/en/counseling/ias>

International Office

<https://www.international.uni-freiburg.de/>

Dormitories

<https://www.swfr.de/en/residence/student-residence/summary-of-dormitories/>

Finding private accommodation

<https://www.swfr.de/en/residence/housing-services/housing-service/>

<http://www.wohnungsdatenbank.uni-freiburg.de/>

<http://zypresse.com/kleinanzeigen/mieten-vermieten/>

<http://www.schnapp.de>

<http://www.studenten-wg.de>

<http://www.wg-gesucht.de>

University Recreational Sport

<http://www.hochschulsport.uni-freiburg.de/>

University Library

<http://www.ub.uni-freiburg.de>

Computer Center

<http://www.rz.uni-freiburg.de>

Train schedules

<http://www.bahn.de/>

Scholarships

<https://www.swfr.de/en/money/financial-aid/stipends/>

Trips and excursions and other activities

<https://www.swfr.de/en/events/studitours/>

5.2 Overview of the Most Important Dates and Deadlines

The following is a list of the most important dates and deadlines for the summer semester 2021:

12 – 15 April 2021	Orientation week for new students
19 April	Beginning of lectures of the summer semester
1 May	May Day (Public holiday)
13 May	Ascension Day (Public holiday)
24 – 30 May	Pentecost break
1 June – 15 August	Registration (fee payment) for the winter semester
3 June	Corpus Christi (public holiday)
23 July	Last day of lectures of the summer semester
9 Aug – 30 Sep	Examination period of the summer semester
18 October	Beginning of lectures of the winter semester

Keep the examination schedule in mind when planning your holidays!

5.3 Overview of the Most Important Contact Persons

5.3.1 At the Faculty of Engineering

Name	Function	Room	Tel	E-mail
Ms. Ursula Epe	Program Coordinator	Room 101 02 013a	49 761 2038340	studienkoordination@tf.uni-freiburg.de
Ms. Anne-J. Müller, Ms. Susanne Stork	Examination office	Room 101 02 009a	49 762 2038083	pruefungsamt@tf.uni-freiburg.de
Ms Martina Nopper	Academic Advisor for ESE and MCS	Room 101 02 013a	49 761 2038169	studienberatung@informatik.uni-freiburg.de
Mr. Frank Goldschmidtböing	Academic Advisor for ESE	Room 102 01 075	49 761 2034454	studienberatung@ese.uni-freiburg.de
Fachschaft (= student council)		Room 051 00 028		fs@fachschaft.tf.uni-freiburg.de

5.3.2 In the Service Center for Students

International Admissions and Services (IAS): In charge of admissions, enrolment, leave of absences, confirmation of receipt of fee payment, exmatriculation and more.

Sedanstrasse 6, 1st floor
79098 Freiburg

E-Mail: international@service.uni-freiburg.de

Homepage: <http://www.studium.uni-freiburg.de/de/beratung/ias/ias>

Consulting hours: Monday, Tuesday, Wednesday and Thursday 9.00 to 12:00 a.m., Thursday 2.00 – 4.00 p.m.

5.3.3 Studierendenwerk (SWFR)

Studierendenwerk Freiburg
Basler Str. 2
79100 Freiburg
Tel.: ++49 761/2101-200
<http://www.swfr.de/>

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Participants:

Ursula Epe

Martina Nopper

Svenja Andresen

Amanda Benecke

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Glossary

c.t.

This is the abbreviation for "*cum tempore*", which is "with time" You see it after the time listed for a course or event to begin. What it means is that if the given start time for a course is, for example, 10 am c.t., the actual start time is punctually 15 minutes after the time given, so at 10:15 am. If you see s.t., which stands for "*sine tempore*", after the course or event start time, then the course or event will begin at the exact time named. 10 am s.t. really means the class or event starts punctually at 10 am. If neither c.t. nor s.t. appears, than c.t. applies.

Course Catalog (*Vorlesungsverzeichnis VVZ*)

This is a section in HisinOne showing all courses and events offered in a specific semester.

Credit Hours (*Semesterwochenstunde*)

The number of credit hours assigned to a course denotes how many hours per week the particular course is held. A lecture, for example that is assigned four credit hours, meets four hours each week during the semester. An hour here means 45 minutes.

Dean (*Dekan*)

The Dean is the head of a Faculty. They represent faculty interests and the Dean serves as Chairperson of the Faculty Committee.

Dean of Studies (*Studiendekan*)

The Dean of Studies must ensure that there are a sufficient number of courses being offered. They are also responsible for the establishment and implementation of regulations for courses of study and examinations. Additionally, they are the contact person in case of problems with academic matters.

Dean's Office (*Dekanat*)

The Dean's Office is responsible for the administration at a Faculty.

ECTS

ECTS stands for European Credit Transfer System. For each course you successfully complete, you will get a certain number of ECTS credit points. The credit points are calculated based on the estimated student work load for the course. One ECTS credit point corresponds to 30 hours of student work (including classes, class preparation, exercises, exam preparation etc.). To get the Master's degree you have to obtain 120 ECTS points.

ESE

Short form for Embedded Systems Engineering.

Faculty (*Fakultät*)

A faculty is a section, or college at a university. It may include more than one department. For example, the Faculty of Engineering includes the Department of Computer Science, the Department of Microsystems Engineering and the Department of Sustainable Systems Engineering.

HiWi

HiWi is short for *Hilfswissenschaftler*, which means something like research assistant. Hiwi jobs are offered by the university to students. Depending on their academic degree HiWis earn 10 to 12 Euro per hour.

Matriculation Number (*Matrikelnummer*)

This is your personal student identification number.

Mensa

Latin word used in German for the cafeteria at the university.

Module (*Modul*)

A module is a unit of study for which you will receive one mark in your final transcript of grades. Examples are lectures, seminars and lab courses.

Module Handbook (*Modulhandbuch*)

The Module Handbook (or syllabus) describes the content of all the courses in your program of studies which you can choose from, and receive credit for. (Modules)

MSE (*MST*)

Abbreviation for Microsystems Engineering. In German: *Mikrosystemtechnik* (MST)

Pool Manager

The pool manager is in charge of the student computer pool located in the Airport Cafeteria Building at the Faculty of Engineering.

Semester

This is the word used to describe the academic half year or term. In Germany, the

academic year is divided into the winter semester (WS) from October to March, and the summer semester (SS) from April to September.

Semester Ticket

This is a special student ticket for using public transportation in Freiburg and its surroundings which is valid for one semester.

s.t.

See c.t.

SWFR (Student Services, in German *Studierendenwerk*)

An administrative organization responsible for operating cafeterias, assigning student housing and over-seeing student dormitories. SWFR also offers numerous advisory services for students.

TF

Abbreviation for the "Technische Fakultät" (Faculty of Engineering).

WG

Short for "Wohngemeinschaft" which is usually a group of students who share a flat.

¹ MAOT Students' Guide, Universität Erlangen-Nürnberg, October 2011

² MAOT Students' Guide, Universität Erlangen-Nürnberg, October 2011

³ MAOT Students' Guide, Universität Erlangen-Nürnberg, October 2011

⁴ MAOT Students' Guide, Universität Erlangen-Nürnberg, October 2011

⁵ <https://www.fem.uni-freiburg.de/downloads/resolveuid/8454f9edab8d385fcf53bc0010b86234>