



**Department of Microsystems Engineering**

**Orientation manual for new students**

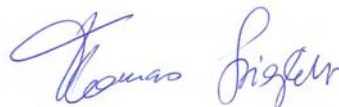
**September 2010**

## Welcome

We would like to take this opportunity to welcome you to the Department of Microsystems Engineering at the University of Freiburg. Your decision to study Microsystems 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 Microsystems Engineering department is relatively new, means that our 20 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. In Microsystems Engineering, you can work towards a bachelor's or master's degree. You already know that the way things work at the university level is often 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 Microsystems 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 ([epe@tf.uni-freiburg.de](mailto:epe@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. Becker (Dean)



Prof. Dr. Stieglitz (Dean of Academic Affairs)

## Preface

Even though this brochure is an official Faculty publication, we have chosen to use a more informal style and placed great value on making it clear, practical and easy to use. It is supposed to be understandable and, well, different from the majority of official documents which are usually extremely formal and almost impossible to comprehend! Our aim is to give you a sort of personal advisor that can help you answer many of the questions about your studies and student life. The suggestions and tips are presented from the student perspective and we hope, come across like pieces of advice from a good friend. That is why you will find here uncomplicated and practical language designed to get to the point. We will also provide you with names and addresses of who to contact or where to go for more information. Notes in the margins and boxes with things to watch out for, or to take special note of, are used to sum up the content of lengthier text passages and lighten things up a bit.

We wish you, our readers, a great start as you begin your studies and hope that this manual will be a valuable assistant and guide during your first semester.

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# 1 Microsystems Engineering

## 1.1 General Information

### 1.1.1 Degrees

You have two possibilities when studying for a degree in the Department of Engineering. You can work towards obtaining a bachelor's degree, or if you already have your first qualifying degree from a university, you can do graduate work towards a master's degree.

#### 1.1.1.1 Bachelor's Program

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. The bachelor's degree work lasts six semesters and the program complies with international standards. Great emphasis is placed on preparing you for professional life and giving you career-related experience. During the entire course of study, you will participate in lectures about subjects designed to prepare you for the world of work. These include: communication, project management and business start-up. Some of your classes also require you to complete a project and/or perform practical tasks. Your bachelor's degree qualifies you for entry to the business world and is also a condition for further study towards obtaining a master's degree.

Work-related experience and an international character are hallmarks of the Bachelor's Program.

#### 1.1.1.2 Master's Program

Since winter semester 2007/2008, graduates with a bachelor's degree or diploma in an Engineering discipline (such as Electrical or Mechanical Engineering) have been eligible for admission to the Master's in Microsystems Engineering Program that is taught in English. Winter semester 2008/09 saw the launching of the Master's in Microsystems Engineering Program taught in the German language which flows directly out of the Bachelor's in Microsystems Engineering Program. In the Master's Program, you can specialize in a particular area of Microsystems Engineering. It is also 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 area. 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 PhD. For more information about the master's programs, please go to: [http://www.imtek.de/content/master/msc\\_mse\\_en.php](http://www.imtek.de/content/master/msc_mse_en.php)

The Master's Program is post-graduate work.

### 1.1.2 Course Types

#### 1.1.2.1 Attendance Courses

Attendance courses can be lectures, tutorials, labs and seminars.

- Lectures and Tutorials

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, PhD candidates and assistants.

- Labs

The point of lab courses is to put the theory you have learnt into practice. Examples of this are Microsystems Lab I & II (*Mikrosystemtechnikpraktikum I+II*) and MSE Design Laboratory I & II (*MST Design Laboratory I+II*). Such courses have a flexible design, and in them, groups work independently to complete an assigned task or solve a problem.

- Seminars

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.

#### 1.1.2.2 Multimedia/eLearning

In addition to the required attendance classes, it is possible to download many lectures from the University server to your own computer. You can view these lectures using special software, or often even with Windows Media Player or Real Player. It is totally up to you when and where you listen to the lectures. You can repeat sections that you do not understand the first time round and quickly go to particular questions or chapters when you need to revise for an exam. Many classes combine the advantages of both methods. In this variation, you increase and enhance your social contacts by attending the lectures. Then in the comfort of your own home, you are able to review parts of the lecture which may have been unclear in the classroom.

#### 1.1.2.3 Registering for Courses

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 at the computing centre (see 2.6.2). You will receive your user name and password automatically by e-mail after matriculating at the University. Please make sure to give your current e-mail address when matriculating at the University, because this e-mail address will be fed as your contact address into the database of the student registry and examination office.

Registration is necessary so that your instructor knows in advance how many students wish to participate in their 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 a first semester student, you can register for a class up to two weeks after the beginning of the lecture period. According to the MSE study plan (see 3.8), it is recommended that you register for the following courses in the first semester:

- Micro-electronics
- Micro-mechanics
- Micro-optics
- Sensors
- Probability and Statistics
- MST technologies and processes
- MST design laboratory I

Registration occurs online using the Course Catalog <<https://www.verwaltung.uni-freiburg.de/qis>>:

- Log in with your user ID and password
- Select Vorlesungsverzeichnis Wintersemester 2010/11
- Select Technische Fakultät
- Select Studiengang Mikrosystemtechnik (MST)/Microsystems Engineering (MSE)
- Select Master MSE - Advanced microsystems engineering
- Select Belegwunsch/Stornierung for each course you want to take
- Select “Belegwunsch” to save your registration.

Starting with your second semester, you must always register for your desired classes at least four weeks prior to the first day of class. You can find the applicable registration deadlines on the Examination Office homepage at: <[http://www.tf.uni-freiburg.de/Institute/dekpamt/termine/termine\\_englisch.html?set\\_language=en](http://www.tf.uni-freiburg.de/Institute/dekpamt/termine/termine_englisch.html?set_language=en)>

Having registered for a course does not mean that you are registered for the exam pertaining to this course. This has to be done separately (see 1.1.3.3.1)

### 1.1.3 Examination Regulations

#### 1.1.3.1 What are 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. Even though the language they are written in is very dry and often difficult to understand, you really do need to be familiar with this important document. It is the best way to learn more about your rights and what is required of you during your studies. The Examination Office also regularly offers an orientation event which you should definitely attend!

The Examination Regulations inform you about your rights and obligations.

#### 1.1.3.2 Which version of the examination procedures and regulations applies to me?

For every degree, there is a different applicable version of the examination regulations.

You can find the regulations on the website of the examination office: <[http://www.tf.uni-freiburg.de/Institute/dekpamt/master/pruefungsordnungen/pruefungsordnungen\\_englisch.html?set\\_language=en](http://www.tf.uni-freiburg.de/Institute/dekpamt/master/pruefungsordnungen/pruefungsordnungen_englisch.html?set_language=en)> (in German only)

#### 1.1.3.3.1 Examination Registration and Deregistration

Examinations are always given during a certain timeframe. You can find the particular

examination dates for any given semester at the Faculty of Engineering (Technische Fakultät - TF) by going to the Examination Office homepage at: <<http://www.tf.uni-freiburg.de/Institute/dekpamt/termine>>

The  
Microsystems  
Engineering  
Examinations are  
given from  
February 28 till  
March 31, 2011.

In order to sit an examination, you have to register for it. Examination registration takes place online using the following address: <http://www.tf.uni-freiburg.de/Institute/dekpamt/sb-studierende>.

- Log in with your user ID and password
- Select “Meine Funktionen” and “Prüfungsan-/abmeldung”
- Use the tree to select a course
- Select “Prüfung anmelden”
- Select “Ja” to confirm
- Wait a few seconds for the confirmation window to pop up

Examination  
registration takes  
place via  
internet.

Please note: Even if the exam is not written or oral but for example a paper or a project that you have to submit, you need to register for it!

You may only register for an examination during the official registration period. Deregistration is possible during this same time period. Please make sure you check the Examination Office homepage.

Attention: 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.

#### i Registration and Deregistration Procedures

In order to register for an examination, you need to have a password. You should have already received one via e-mail from the University Computing Center. If you have not received a password, please contact the Computing Center User Services directly at [bima@rz.uni-freiburg.de](mailto:bima@rz.uni-freiburg.de).

Your registration for an examination is binding. It applies automatically for any necessary repeat examinations. You can only register or deregister during the official registration period. After this deadline has passed, registering or deregistering for an examination is no longer possible! You should also be aware that every registration or deregistration is conditional. This means that if you have not fulfilled the necessary exam admissions criteria, you will not be permitted to sit the examination. In such a case, you will be informed in writing via postal service by the Examination Office.

Print out your transcript of marks at the end of the registration period and put it in your bag when going to the exams. If your name should by mistake not be on the list of participants that the examiner gets, you can thus prove that you have registered for the exam. In that case you will be conditionally accepted to participate in the exam.

#### 1.1.3.3.2 Examinations during your Coursework/ECTS Points/Limits on Repeating Examinations

As we already mentioned, most of your examinations take place during your course of

study. That means you will not have to sit any major final exams, but rather earn your needed credit hours during the semesters one step at time. 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. Every semester, you are expected to have a course load worth thirty ECTS points. This adds up to a work load of 900 hours per semester. An ECTS point account is set up by the Examination Office for every student to keep track of your successfully completed coursework and examinations. If you have successfully completed a module, then the according amount of points will be credited to your account. Every examination may be repeated at maximum once. Exceptions to this are the Bachelor 3 and Master 2 examination results which you are allowed to select for yourself and 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 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 online lecture material. If you fail the first repeat and if you are allowed to repeat again, at the latest, the second repeat examination must take place at the second next possible examination date following the first repeat. Papers, projects, reports, bachelor's or master's thesis can only be repeated once.

Your exams and other academic work all take place during your course of study.

#### 1.1.3.3.3 Compensation Regulations for Improving Grades

Bachelor's program: During your first four semesters, you can re-sit partial exams which you passed the first time in order to try and improve your grade. You can do this for a maximum of three modules in the Bachelor's Program.

Master's program: In the Master's program can try to improve your grade during the first two semesters in two modules.

Your first examination in the module must have taken place in, or prior to, the semester designated for that particular exam in your study plan.

#### 1.1.3.3.4 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. You can check the Examination Regulations to see exactly how your final grade will be calculated.

#### 1.1.3.3.5 Illness

Should illness prevent you from taking an examination, interrupt your participation before finishing it or lead you to have an exam you finished declared invalid, you are required to provide proof of the illness in accordance with the Examination Office Regulations. To this end, you must obtain a doctor's excuse which includes information from your physician sufficient for the Examination Office 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 doctor's excuse 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 located on the Examination Office homepage under: <<http://www.tf.uni-freiburg.de/Institute/dekpamt/vordrucke>>

In case of illness, you need a doctor's excuse. The standard inability to work excuse is not accepted.

Print out this form before you go to your doctor. Have them fill out 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.

Use the form from the Examination Office for your doctor's excuse.

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).

#### 1.1.3.3.6 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 1.1.3.3.2).

You can repeat every examination at least once.

#### 1.1.4 Be informed!

##### 1.1.4.1 The internet is your main source of information

When you are looking for information about your Microsystems Engineering studies, the internet is your primary source. This is where you can find most of the information that is relevant to your needs. You really should have internet access, as doing a course of study in Microsystems Engineering, or any other subject, without it is becoming more and more difficult.

You can find a great deal of information about your

Notices and other printed publications are supplements to the information in the internet and not the other way around as was previously the case!

course of studies  
in the internet.

#### 1.1.4.2 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, help with organizing your examination schedule, advice about difficult situations in your studies and obtain the records of your student performance needed for financial aid (BAFÖG). The Examination Office provides general notices, important links and special information regarding the Microsystems Engineering programs in the internet under: [http://www.tf.uni-freiburg.de/facilities/examination-office/index\\_englisch.html?set\\_language=en](http://www.tf.uni-freiburg.de/facilities/examination-office/index_englisch.html?set_language=en)

The Examination Office is responsible for organizational questions about exams.

Marianne Zeiser, [pruefungsamt@tf.uni-freiburg.de](mailto:pruefungsamt@tf.uni-freiburg.de)  
Tel. 0761/203-8087, Bld. 101, Room 02-009  
Office Hours: Tuesday to Thursday from 10 am – 12 pm

- Bafög (Financial Aid) Matters
- Issuance of certificates and student academic records and transcripts
- Examination registration
- Document pick-up

Friederike Schneider, [pruefungsamt@tf.uni-freiburg.de](mailto:pruefungsamt@tf.uni-freiburg.de)  
Tel. 0761/203-8083, Bld. 101, Room 02-009  
Office Hours: Monday from 2 pm to 4 pm  
Tuesday to Thursday from 10 am – 12 pm

- Maintenance of online systems
- Recognition of credits transferred from other universities
- Advice about examination regulations
- Advising for international students
- Advice about changing to another area of study

During office hours, the Examination Office cannot be reached via telephone. The best times to speak to someone in the office on the phone are Monday and Friday mornings and Tuesday and Thursday afternoons.

#### 1.1.4.3 Student Advising

If you have questions about your studies, you should turn to Student Advising for assistance.

The Student Advisors are:

Dr. Andreas Greiner, [studienberatung@imtek.de](mailto:studienberatung@imtek.de)  
Tel. 0761/203-7384, Bld. 103, Room 03-025

Dr. Oswald Prucker, [studienberatung@imtek.de](mailto:studienberatung@imtek.de)  
Tel. 0761/203-7164, Bld. 103, Room 00-105

If you have questions, ask for advice!

For questions about the master's programs or general student life (scholarships,

housing search, etc.) you can also turn to

Ursula Epe, the Program Coordinator at the Faculty of Engineering:

[epe@tf.uni-freiburg.de](mailto:epe@tf.uni-freiburg.de)

Tel.: (0761) 203-8340 , Building 101, room 02 013a

The Student Advisors are not responsible for matters concerning the authentication of student academic records, but rather the Examination Committee. For such questions, contact the Examination Office.

#### 1.1.4.4 Departmental Student Committee

About the term Departmental Student Committee “*Fachschaft*”

On December 10, 1977, the officially recognized Student Committee (body or council) was abolished in Baden-Württemberg. Today, officially, and according to University regulations, the term student committee refers only to the six student representatives and their alternates who sit on the Faculty Council. In everyday use, however, student committee retains more of its earlier meaning. Namely that all students have the right of co-determination. Therefore at the Faculty of Engineering, we include in our definition of student committee, or body, all those students who wish to give their opinion, participate in the decision making process and/or help with the implementation of decisions made. In order to take advantage of the few remaining co-determination rights available to students under the law, the student committee presents a list of candidates for election to the Faculty Council. As in most other faculties, the student body list for the Faculty of Engineering is normally the only list of students presented for the Faculty Council elections. This situation does have certain advantages. As the Student Committee has no official rights, nor does it receive funding, it is able to exist without written statutes. This means decisions can normally be made by simply using the form of a consensus. Additionally, the Student Committee can give its opinion about higher education issues and topics of general interest without having to be concerned with legal consequences.

The Departmental Student Committee members work for you, so get involved and work with them!

#### Departmental Student Committee Scope of Activities

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 for first semester students. This committee organizes the pre-courses in math, orientation day and the first semester weekend away trip. Its members also regularly arrange the popular and well-attended airport party.

The Departmental Student Committee provides competent and independent dialogue opportunities for you when it comes to questions about your studies. Its members can be of great assistance to you, especially during your first semester.

The Departmental Student Committee internet address is:

<<http://fachschaft.informatik.uni-freiburg.de>>. You should really check out the Departmental ABC, as it contains valuable information and interesting links:

<<http://fachschaft.informatik.uni-freiburg.de/?q=abc>>. Next to it, you can find the Committee page with examination reports and copies of examinations from the previous semester that you can use to help you prepare for your own exams:

<<http://fachschaft.informatik.uni-freiburg.de/?q=klausuren>>.

Due to copyright laws, you can only download examination regulations and past

exams from the University Network or with a valid account.

The Departmental Student Committee also regularly conducts various evaluations. You can view the results or learn more about them on the Committee website.

Contacting the Departmental Student Committee:

Questions from first semester students can be sent to a special email address: [ersti@fachschaft.informatik.uni-freiburg.de](mailto:ersti@fachschaft.informatik.uni-freiburg.de). Send your general enquiries to: [fs@fachschaft.informatik.uni-freiburg.de](mailto: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.

Office 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 email with your concerns to the addresses already given. The Departmental Student Committee address is:

Departmental Student Committee (Fachschaft)  
Faculty of Engineering  
Georges-Köhler-Allee 051 (Room 00-028)  
79110 Freiburg

The Departmental Student Committee can help if you have problems.

#### 1.1.4.5 Mentors and Professors

Every MSE student will have a personal mentor. The mentor will invite you to a meeting at least once per semester. You may discuss with him/her all issues, which may arise during your studies and ask him/her for advice. The mentor might also help you to find a job or to study one semester abroad.

When looking for sources of information, do not underestimate your professors and assistants. They are especially well-qualified to give you valuable literature tips, 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. Most of your professors and assistants have internet sites which you can use to contact them. The internet addresses for the various courses will normally be given to you at the beginning of the semester during class. You can use these addresses to find the internet sites for most of the professors. All contact data for the Microsystems Engineering professors can be found on the internet at: [www.imtek.uni-freiburg.de](http://www.imtek.uni-freiburg.de)

Professors and assistants are happy to answer your subject related questions.

Contact information for Mathematics professors can be found using the internet address:

<<http://home.mathematik.uni-freiburg.de/personen/list/list.en.html>>

#### 1.1.4.6 Equal Opportunity Commissioner

The Equal Opportunity Commissioner for the Faculty of Engineering is Dr. Karen Lienkamp. She represents issues of special interest to women students on numerous Faculty committees. She is also the contact person for women with questions about their studies or student life in the University environment. Dr. Lienkamp is deeply involved in the annual student day for women. She also interacts closely with the Equal Opportunity Commissioner for the entire University and provides information about scholarships or grants for women students. You can reach Dr. Lienkamp and her deputy Prof. Bennewitz under the following addresses:

Dr. Karen Lienkamp  
Institut für Mikrosystemtechnik  
Georges-Köhler-Allee 106, Zi 01-016  
79110 Freiburg  
Tel.: (0761) 203-7415  
[lienkamp@imtek.uni-freiburg.de](mailto:lienkamp@imtek.uni-freiburg.de)

Deputy:  
Jun.-Prof. Dr. Maren Bennewitz  
Institut für Informatik  
Tel.: (07 61) 203-7401  
Fax: (0761) 203-8222  
[maren@informatik.uni-freiburg.de](mailto:maren@informatik.uni-freiburg.de)

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

#### 1.1.4.7 *futura*: For women studying in natural sciences or technological fields

The service and advising offerings from *futura* can put women students in contact with mentors: women who have already gained professional experience. Your *futura* mentor can help you with all sorts of practical questions about getting started in your career and provide you with valuable, insider tips. All participating women can also get to know each other and exchange experiences and information during networking sessions. If you are interested, please contact:

[www.mentoring.uni-freiburg.de](http://www.mentoring.uni-freiburg.de)

Or get in touch with the Coordinator for Study Programs:

Ursula Epe  
Georges-Köhler-Allee, 101 00 013a  
79110 Freiburg i. Br.  
Tel. (0761) 203-8340  
Fax (0761) 203-8057  
[epe@tf.uni-freiburg.de](mailto:epe@tf.uni-freiburg.de)

#### The University Equal Opportunity Office

Women Students at the University with questions or concerns can turn to the Equal Opportunity Commissioner for an advising session:

Contact:  
Equal Opportunity Office

PD Dr. Rotraud von Kulesa  
Werthmannstr. 8, Back building, Ground Floor (formally Werderring)  
79098 Freiburg  
Tel.: 0761/203-4299 or 3198  
Office Hours: Thursday 10 am-12 pm  
Please call first to make an appointment.

[gleichstellungsbeauftragte@zuv.uni-freiburg.de](mailto:gleichstellungsbeauftragte@zuv.uni-freiburg.de)  
<[www.gleichstellungsbuero.uni-freiburg.de/gleichstellungsbeauftragte](http://www.gleichstellungsbuero.uni-freiburg.de/gleichstellungsbeauftragte)>

#### 1.1.4.8 Department of Microsystems Engineering Internet Presence

You can use the Department of Microsystems Engineering website to quickly find any information your professors have posted on the internet. Here, your professors list on their pages suggestions about topics for term papers and your thesis, as well as information about the professors' research areas. Departmental student jobs are also normally posted here. The Department of Microsystems Engineering uses its website to present information about its projects and provides interesting links (for example to the current course catalog or student advising). You can visit our website to see all this information and more at: <<http://www.imtek.uni-freiburg.de/>>

#### 1.1.4.9 Faculty Internet Presence

The internet presence of the Faculty of Engineering is concerned with more organizational and administrative matters. This is the place to find information about various departmental offices (for example the Examination Office or Dean's Office), the current course catalog, location maps and much more. The internet address is:

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

## 1.2 The 1st Semester

### 1.2.1 First Semester Course Work

In the first two semesters of the Master's program in Microsystems Engineering, you will mainly have mandatory courses. In the third and fourth semester you will be able to choose elective courses in your chosen concentration areas. Which courses you have to take in order to get the Master's degree is shown in the study plan that you can find on that website of the examination office: <[http://www.tf.uni-freiburg.de/Institute/dekpamt/master/studienplaene/studienplaene\\_englisch.html](http://www.tf.uni-freiburg.de/Institute/dekpamt/master/studienplaene/studienplaene_englisch.html)>

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

To find out which courses are being offered in a given semester, check the Course Catalog ("Vorlesungsverzeichnis"). You can purchase a copy of the Course Catalog for all faculties several weeks before a new semester begins in local book shops, or go online at the following URL: <<http://www.studium.uni-freiburg.de/studium/lehrveranstaltungen>>

The course schedules for the programs offered at Faculty of Engineering can be found several weeks prior to semester begin under the address: [http://www.tf.uni-freiburg.de/Studium und Lehre](http://www.tf.uni-freiburg.de/Studium_und_Lehre) by clicking on "Stundenpläne

Mikrosystemtechnik”.

## 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 literature. If you do not find an answer here, ask the professor or their assistant. You need to pay particular attention to the literature 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 the literature takes a lot of time, because you first have to accustom yourself to the symbols and terms used by the author. Additionally, various writers can present the same data in different ways. Nevertheless, learning how to obtain and use information from assorted reference sources is a basic principle of scientific research.

Studying background literature is important.

It might also make sense not even to make your own notes, especially if you can barely read your own handwriting or tend to take notes which turn out to be unclear. If this is true for you, regularly copy notes from a classmate who is very good at note-taking. In class, only take notes on the most important points made during the lecture so that you can supplement the notes you copy.

Most professors use overhead or PowerPoint presentations during class as instructional aides during their lectures. They normally make the visuals which will be presented in class available on the internet for downloading at least one day before a lecture takes place. You can print out these pages 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. Further, if you go to class, you will always be meeting new people, and some of them may turn out to become good friends. 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.

Multimedia 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.

### 1.3.1.3 Paper Work and Filing

Filing boxes or magazine stands are a great idea for storing and filing all the papers related to your courses. Assigning one box or stand per course seems to work best. You can file everything related to that course in one place. Then when you need a particular document or paper, you can find it quickly. The boxes and stands are also easily stored. Another helpful tip, get yourself some flexi-fasteners or folders. Use them to file all your notes and handouts in chronological order in order to avoid having stacks of loose papers and the ensuing chaos. Use separate folders for your exercises and solutions, your notes, copies of the instructor's materials you printed from the internet, professor's lecture notes, tutorials and other documents. A stapler and a hole-puncher that has markings for various paper sizes will also come in handy for keeping all your paper work in order.

Prevent chaos: keep your paper work organized in files.

### 1.3.1.4 Tutorial Exercises

#### 1.3.1.4.1 Why do the exercises and are they required?

Tutorials and the exercises you do there 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. Whether you have to do the exercises, or even achieve a minimum number of points on them, depends on your Examination Regulations. The (successful) completion of the exercise handouts from a lecture may be required before you can be admitted to a particular examination. Regardless of how well you do on the exercises, your goal is to achieve the best grade possible. Many professors incorporate an incentive system in their exercise handouts. This means that students who work through the exercises can accumulate bonus points for the examination. In the Bachelor's and Master's Programs in Microsystems Engineering, an examiner can require that you have participated in a tutorial and/or done the exercises before allowing you to register for an examination. They can assume that you have not participated in the tutorial if you have not worked through

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

the exercise handouts to a certain degree. This means that in the worst case, you must have worked through all the exercises, but need not have reached the correct solutions as successful participation is not required. It is also possible that you may be required to demonstrate your ability to solve certain exercises in order to be admitted to an examination. Again, your demonstration must not be successful. This results in the examiner requiring you to have achieved a minimum number of points on the exercise handouts in order to allow you to sit the examination. Then it can be argued, that you have not participated successfully in the tutorials if you have not correctly worked through the handouts.

You really should do the exercises on the handouts in order to be prepared for your examinations. The same applies for attending lectures and doing the exercises given there.

#### 1.3.1.4.2 How do I work through exercises?

You can do the exercises alone, or in groups. Most of the time, you can do an entire handout with easier exercises by yourself. But it is helpful if you tackle the more difficult exercises with friends. Then you can discuss the problems and work through the exercise together. 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.

#### 1.3.1.4.3 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. Meanwhile, electronic exercises are being set, this means you have to create a PDF or PS file and upload it to a given portal.

#### 1.3.1.4.4 Group work, copying and using 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. 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.

Work through difficult exercises in a group.

But 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. Nevertheless, it is increasingly difficult to work out the solution for yourself instead of simply copying. That is why you need to work through as many exercises as possible without outside help and try to avoid copying.

Usually, the visuals 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.

Recently, much has been written and discussed about plagiarism. It is a fact that you should never do anything which could lead to you being accused of plagiarism. You do this when you fail to correctly credit your sources or citations in any part of your student work, above all in final examinations, tutorials or your thesis. For example, if you randomly select and copy and paste together material from the internet and do not name the source, you can be accused of plagiarism. If this is discovered and evaluated as being an attempt at deception, your work, including an examination, will be declared as a non-pass. Should you ever be unclear about this matter, ask an instructor or tutor to advise you.

### 1.3.1.5 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 not have to do one at this level on the 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 visuals 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://fachschaft.informatik.uni-freiburg.de/?q=klausuren>>

### 1.3.2 What courses should I attend?

You should only attend classes which are beneficial to you. This has a lot to do with your own goals. It is not a good idea to take your classmates advice about this, as they often have objectives which are not the same as yours. Find out if self-study or attending the lectures in person is best for helping you achieve your aims.

### 1.3.3 Self-discipline and Self-tracking

As opposed to your school days, 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. The more ambitious your goals are, the more self-discipline you will need to reach them.

Keep track of your own progress. Be disciplined and ambitious!

### 1.3.4 Online Lecture Features and Characteristics

With lectures which can be seen online, you have the advantage of being able to decide for yourself when and where you would like to hear the lecture. But this freedom of choice has its downside. For one thing, it could be that you just do not listen regularly to the online lecture. That is why it is best to make an appointment for yourself to hear the lecture at the same time each week. Also, try to work a bit ahead, so that if something unexpected happens, you will not be in danger of falling behind. You also need to make sure you do not just simply passively listen to the lecture. Print out the accompanying visuals from the internet and make notes on them, just as you would do if you were listening to the lecture in the classroom.

Online lectures provide more flexibility for you.

## 2 The University in Everyday Life

### 2.1 Preparing for your first semester

#### 2.1.1 Guided tours of the University Library

The University Library (UB) offers special guided tours for first semester students where you learn how to use the library. You should definitely take advantage of this opportunity because you can find out everything you need to know in order to make best use of its many services. You will also get answers to questions like:

- Where are the index catalogs?
- How do I use them to find the titles I need?
- How are books ordered?
- Which books can be borrowed immediately from the open stacks?
- What do I find at the Information Desk and in the Reading Rooms?
- Where can I get my library user's card?

Check out the University Library.

This is just a sample of the information the library specialists will give you during your tour of the facilities. You can choose one of the following appointments to take the tour:

The first Tuesday of the month at 5:30 pm

Every Tuesday at 3:30 pm

Meeting Point is the Central Information Desk, UB1, Stadthalle am Alten Messplatz (Town Hall at the old Trade Fair Centre)

Duration: about 90 minutes

Registration: not necessary

You can find out more in the current semester course catalog under the heading: Lehrveranstaltungen der Zentralen Einrichtung/Universitätsbibliothek / Allgemeine Einführungen.

General information about guided tours and course offerings in the library can also be found in the Course Catalog for WS2010/2011 under the heading Lehrveranstaltungen der Zentralen Einrichtung/Universitätsbibliothek.

You can view the Course Catalog for WS 2010/2011 in the internet at:  
<<http://www.studium.uni-freiburg.de/studium/lehrveranstaltungen>>

The University Library homepage can be found under the URL: <<http://www.ub.uni-freiburg.de/>>

Using this address, you can extend the return dates for books you have borrowed and reserve or search for books.

**Be sure to have a look at the online journals and learn how to use the data bank research system.** This is free of charge and available through your RZ (Computer Center) account.

#### 2.1.2 “Firsties” Cabin Weekend hosted by the Departmental Student Committee

This event is designed for first semester students to help you meet new people. In October, you can find out more about the Departmental Student Committee’s “Firsties” Cabin Weekend by going to their special website for first semester students at: <<http://fachschaft.informatik.uni-freiburg.de/?q=ersti>>

Spend a weekend in the Vogues and get to know other nice people.

You can also use this same address in October to sign up for the cabin weekend.

#### 2.1.3 Introduction to Unix

The Pool Managers (employees and student workers who take care of the computer pool at the Faculty of Engineering) offer an introductory course in Unix at the beginning of the semester. Because the computers in the student pool use the Unix operating system, you can take part in the course if you are not already familiar with the operating systems Unix/Linux. You can find out more information about the course and the Pool Managers on their internet site at: <<http://poolmgr.informatik.uni-freiburg.de/>>

You will not get far at the University without knowing Linux and Unix. So take a course with the pool managers!

#### 2.1.4 Computer Center (RZ) Introduction

This year, the Computer Center will not be offering a special introduction for first semester students. If you have questions about the Center or using its pools, you can contact the service desk by calling (0761) 203-4620. Information about Computer Center courses can be found under <<http://www.rz.uni-freiburg.de/kurse-en>>

## 2.2 Buildings and Rooms

### 2.2.1 Faculty of Engineering

Mensa Airport  
PC Pools  
Lecture Halls  
Libraries

One of the most important buildings is number 101. It houses the Faculty Library, the Dean's Office, the Examination Office, tutorial rooms and two large lecture halls (101-026, 101-036). The Airport Cafeteria (Mensa, Bld. 082) is another building of central importance for the Faculty of Engineering. A large lecture hall (082-006) and the computer pools are found here. The professorships for Microsystems Engineering faculty are in buildings 102, 103, 104 und 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". You can travel to the Faculty using public transportation. Use bus lines 10 or 11 or the Breisgau S-Bahn (commuter train) in the direction Breisach.

### 2.2.2 Science Campus (Institutsviertel)

Science Campus  
Cafeteria, Round  
Building  
Mathematics,  
LB II

The most important buildings for you at the Science Campus 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 traveling 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 Center

In the University Center, you will find the University Library, the Main Cafeteria, and the "Kollegien" buildings I to IV (KG I to IV). You can reach the University Center 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

UniCard =  
Library 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 it has been activated by the UB. You can have the card activated at the Library's lending section, in the Text Book Collection II section or at

the Faculty Research Library at the Faculty of Engineering.

### 2.3.2 Internet Password

If you want an extension on books you have borrowed, have other books placed on reserve for you or simply access to your library account, you will need an internet password in addition to your library account number. You will receive this password when your account is activated. After you log into the system for the first time, you need to change the password.

### 2.3.3 Password Cards

To protect yourself from third parties misusing your UniCard at the library, you can request a password card. Your library account will only be protected though, if you keep the password card separately from your UniCard. If you have asked for a password card, then you have to present it along with your activated-for-library-use UniCard when you want to borrow books. You are not required to have a password card to check out books. It is an optional security measure.

A password card increases security.

### 2.3.4 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). Your account will then be blocked because someone else could use your card (and if applicable, your password card) to borrow books on your account. You can only apply for a new card at the Rector's Office. This process is explained in the section UniCard, Student Identity Card.

If you lose your UniCard, inform the Library.

**According to the Regulations of Use, you are liable for any misuse of your account.**

### 2.3.5 Borrowing Books

You can borrow from the entire collection of books at the University Library except for books found in the Reading Rooms or very old books. In the text book collections (LB I and LB II), you can find several copies of the most important text books. LB I (for Humanities and Social Sciences) is temporarily located in the Stadt Halle (Alte Messplatz). LB II (for Medicine, Mathematics and Natural Sciences) is at Eckerstraße 1 (Entrance Rheinstraße). The LB II is probably more interesting for you than the lending section at the main library, as it contains many books which are especially for mathematicians and microsystems engineers. You can check out text books in the LBs by presenting your library-activated-UniCard and your password card (should you have requested one). You have to return books to the same place from which you borrowed them.

LB I: return counter in the lending section of UB 1

LB II: text book collection area at Eckerstraße 1 (entrance Rheinstraße).

If the books you want have already been checked out, you can have them reserved for you. Additionally, there is usually one copy of most text books found in the main

library Reading Room which cannot be checked out. In many cases, there is also a magazine version available. You can find out where other copies may be kept by checking the library online catalog under: <<http://www.ub.uni-freiburg.de/?id=opac>>

Books may be checked out for 14 days and you can extend the lending period for another 14 days a total of five 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 15 books at any one time. For more information about borrowing books from the text book collections go to the following URL: <<http://www3.ub.uni-freiburg.de/?id=85>>

### 2.3.6 Borrowing Books over the Weekend and Interlibrary Loan

At the research libraries, for example the one at the Faculty of Engineering, some of the books can only be checked out over the weekend or at other times when the library is closed. However, thanks to the introduction of tuition fees, we were able to purchase some books, that can be checked out any time. They have the code "SB".

To check out a book, you must present your library-activated UniCard. Books for the weekend may be checked out from the Faculty Research Library from Friday at 1 pm and must be returned Monday no later than 11 am. Literature which is not available at the University Library, or another Freiburg library, can normally be borrowed using interlibrary loan. This service costs €1.50 and is available only for books which cost more than €15 in a book shop. Up to 20 pages of copies are free of charge. After that, you must pay the copy costs. For more details about this, see the interlibrary loan section of the University Library internet site at: <<http://www3.ub.uni-freiburg.de/index.php?id=1070>>

### 2.3.7 Libraries relevant for Microsystems Engineers

Here are the four libraries which are of greatest relevance for microsystems engineers:

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

Renovation work on the Main University Library began in September 2008 and is scheduled for completion in 2012. During this time, the main UB has a temporary new home in the Stadthalle at the Alte Messplatz and UB 2 has been relocated to Rempartstraße 10-16. You can find out which subjects are located in which UB by going to: <http://www3.ub.uni-freiburg.de/index.php?id=2533>. The UB address is:

University Library/Universitätsbibliothek Freiburg  
Stadthalle am Alten Messplatz  
Tel.: (0761) 203-3918 (Central Information)  
or (0761) 203-3900 (Administrative Office)

Email: [info@ub.uni-freiburg.de](mailto:info@ub.uni-freiburg.de)

Opening Hours:

Building access to UB 1:

Lending Hours

Lending Area, Self-help Borrowing

Information und Service (UB 1)

Text Book Collection II  
(Med./Nat.), Eckerstraße 1

Building Access UB 2:

Lending Area:

Use of Special Reading Room for Ordered Books (UB 2)

Computer Center (in UB Building, see overview of Computer Center Opening Hours)

Textbook Collection II

You can borrow books about mathematics, natural sciences and medicine from this library found at the following address:

With UniCard:  
Mon-Sun: 24  
hours  
Without  
UniCard: Mon-  
Fri 8 am– 8 pm  
Sat 10 am– 6 pm  
With UniCard:  
Mon - Fri: 08 am  
– 1 am  
Sat, Sun and  
holidays: 10 am  
– 1 am  
Without  
UniCard:  
Mon - Fri: 8 am  
– 8 pm  
Sat: 10.00 am – 6  
pm (except  
holidays)  
Mon-Fri: 8 am -  
1 am  
Sat:10 am-1 am

Mon-Fri: 9 am -  
8 pm Sat: 10 am  
- 6 pm

Mon-Fri: 9 am -  
6 pm

Mon-Fri 8 am– 8  
pm  
Sat 9 am – 6 pm  
(only Computer  
Center rooms in  
basement (EG)  
Mon-Fri 9 am –  
6 pm  
Mon-Fri: 9 am –  
6 pm

Branch (1. OG):  
Mon-Fri: 9 am -  
8 pm  
Sat: 9 am - 6 pm

Mon-Fri. 9 am –  
6 pm

Textbook Collection II /Lehrbuchsammlung II  
(Mathematics, Natural Sciences, Medicine)  
Eckerstraße 1 (Entrance Rheinstraße)  
79104 Freiburg  
Tel.: (0761) 203-3979  
Opening Hours during the Semester:  
Mo – Fr: 9 am - 6 pm

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>>

#### Faculty of Engineering Reference Library

This library has books available especially for computer scientists and microsystems engineers and is located at:

Faculty of Engineering Reference Library/ Fakultätsbibliothek der Technischen Fakultät  
Georges-Köhler-Allee 101  
79110 Freiburg  
Tel.: (0761) 203-8003  
Fax: (0761) 203-8002  
Contact: Susanne Hauser  
Email: [hauser@informatik.uni-freiburg.de](mailto:hauser@informatik.uni-freiburg.de)  
Opening Hours:  
Mo – Fr: 9 am- 10 pm and Sa: 10 am – 1 pm

The Faculty of Engineering Reference Library website is: <<http://www.ub.uni-freiburg.de/sigelverz/091/index.html>>

#### The Faculty of Mathematics Research Library

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

Faculty of Mathematics Research Library/Mathematisches Institut  
Bibliothek  
Eckerstraße 1, Room 022 (Ground Floor)  
79104 Freiburg  
Tel.: (0761) 203-5543  
Contact: Barbara Hahn  
Email: [hahn@ub.uni-freiburg.de](mailto:hahn@ub.uni-freiburg.de)  
Opening Hours: Mo – Fr: 8 am - 9 pm, Sa: 8 am – 6 pm

This library is open only to authorized users. If you do not have authorization, you need to contact Ms Hahn 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. There are also further, smaller pools which are used for certain lectures and lab courses. The purpose of the pool rooms is to provide you with a computer work station that you can use during your studies. An extensive software package is installed on the pool room computers, for example Java, Browser und email clients. You can also print out lecture visuals and professors' notes and download at high speed. Every student can print 120 pages per month for free. If you print more, you will have to pay for it. There are two possibilities for using the computers in the pool rooms.

1. If you are studying Microsystems Engineering as your main subject in the department, then most likely, an account has already been set up for you if your data was made available to us. You then only have to have the account activated. Lists of these accounts will be posted on the door of the Old Lecture Hall (Building 082, ground floor). You can have your account activated during the Pool Manager's office hours. You will need your UniCard in order to do this.
2. If you do not have an existing account (for example those with Microsystems Engineering as a minor subject), then you need to fill out and turn in an application form. You can get this from the Pool Manager or on the internet under:

<<http://support.informatik.uni-freiburg.de/accounts.en.shtml>>

This is where you can also find the next steps. When you have completed the application process, it will take about 15 to 30 minutes before you can use your account. You will receive an email 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 Manager at:

Faculty of Engineering

Building 082, Room 01-021

79110 Freiburg

Email: [poolmgr@informatik.uni-freiburg.de](mailto:poolmgr@informatik.uni-freiburg.de)

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

You can look at the Pool Managers' website under "contact" to see when you can speak with someone in person at the office in Room 01-021, Building 082.

#### 2.4.1.2 Email Address

After your account for the Faculty computer pool has been set up and successfully activated, you are reachable via email. General information about email addresses

and their features can be found on the Pool Managers' internet site under:  
<<http://poolmgr.informatik.uni-freiburg.de/?Service>>

You can find out here information about how the Faculty email addresses are compiled, which mail servers are available and how to configure your account. Your email address is: [Username@informatik.uni-freiburg.de](mailto:Username@informatik.uni-freiburg.de) or [Username@tf.uni-freiburg.de](mailto:Username@tf.uni-freiburg.de). Replace the word "Username" with your name as it appears on your account. If you have an account and an email address, you will automatically be put on the mailing lists "Student" and "Market". The mails which reach you over these two lists will keep you informed about all the latest events and activities at the Faculty.

#### 2.4.1.3 Opening Hours Computer Pools

Faculty of Engineering Pool

During the Semester:

Monday to Friday from 8 am to 7 pm

LiWi Pool

Monday to Friday from 8 am to 12 am (from 7 pm only with UniCard)

Saturday from 8 am to 12 am (only with UniCard)

Linux-Pool:

Monday to Friday from 8 am to 12 am (only with UniCard)

Saturday from 8 am to 12 am (only with UniCard)

An activated UniCard gives you access to the Pool Rooms from the side entrance Monday – Saturday until 12 am (The UniCard can be activated for this function in the Dean's Office at the Faculty of Engineering). The Pool is closed on Sundays and public holidays.

**The Linux Pool can only be used with an activated UniCard .**

#### 2.4.2 PC Pools in Building 106

For Microsystems Engineering students, there is an additional Pool in Building 106 on the 3<sup>rd</sup> Floor. You can use your Computer Center account here that you received via e-mail. However, there is no printer available. To use this Pool, your UniCard must be activated.

## 2.5 Mobile Pools

### 2.5.1 What are mobile pools?

The idea behind mobile pools is to provide our students at the Faculty with access to the University network via funk LAN cards. In this way, you no longer have to depend on the pool rooms and can access the University network with your notebook using WLAN.

### 2.5.2 What is WLAN?

WLAN stands for **Wireless Local Area Network**. Access to a WLAN takes place by means of a funk LAN card at access points. On the grounds and in the facilities

at our Faculty, you can find and use installed access points almost everywhere. Many other faculties also provide access points on their premises which you can use to connect to the University network. This can be used to find information in the internet or check your emails.

### 2.5.3 How do I get a WLAN card?

Many newer notebooks have an integrated WLAN card. If your notebook does not have one, you have two ways of getting one. You can buy a WLAN card in a specialty shop. These currently cost about €50. When purchasing a card, make sure it has the IEEE standard 802.11b and is Wi-Fi certified. Wi-Fi means **wireless fidelity** and is an international standard for wireless communication. You can also borrow a card from the Faculty. Because demand here is often greater than the supply, there is normally a waiting list. You can find out more information about borrowing a WLAN card at: <<http://mopoinfo.vpn.uni-freiburg.de/node>>

### 2.5.4 How to Use WLAN

On our campus you have got two WLAN options: The mobile pools offered by the Department of Computer Science or the WLAN offered by the Computer Centre.

<<http://mopoinfo.vpn.uni-freiburg.de/node>>

<[http://www.rz.uni-freiburg.de/helpcenter-en/faq-en/nb\\_wlan-en?set\\_language=en](http://www.rz.uni-freiburg.de/helpcenter-en/faq-en/nb_wlan-en?set_language=en)>

You need the certificate to configurate IPSec, which is required for accessing the University network. Instructions for generating the certificate are found under: <<http://mopoinfo.vpn.uni-freiburg.de/node/70>>

After you have downloaded the certificate, you are ready to configurate IPSec. The documents about how to do this are found at the following URL:

<<http://mopoinfo.vpn.uni-freiburg.de/node/70>>

These documents also tell you how you can later access the University network. The mobile pool support team is also available to help you. Contact the team via IRC, or by using the following web interface: IRC-Server irc.vpn.uni-freiburg.de:6667, channel #mopomgr

<http://mopoinfo.vpn.uni-freiburg.de/node/47>>

### 2.5.5 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>>

The TF (Faculty of Engineering) access points are listed at:

<http://mopoinfo.vpn.uni-freiburg.de/node/45>

## 2.6 Computer Center

### 2.6.1 Location and Purpose

The 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) 203-4626  
Tax: (0761) 203-4643  
Email: [sek@rz.uni-freiburg.de](mailto:sek@rz.uni-freiburg.de)

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 emails. They can be found at the Main Computer Center or at the Center Branch at UB 2. In order to use these workstations, you need to have a valid Computer Center account.

#### 2.6.1.2 net.point PCs

There are currently about 200 net.point PCs spread over the University. With them, you have complete access to WWW, Secure Shell und X-Windows services. The net.point PCs' start pages depend on which purpose they are supposed to serve. Some of the designated uses are: info pillars, mailing.point, library research or first information. Due to the youth protection law, net.points in public places use Firewall to allow access only to University internet sites. Because you are a member of the University, you can de-activate this protective function by entering the registered user name on your Computer Center account.

#### 2.6.1.3 WLAN

Your Computer Center account and your account with the Faculty of Engineering both allow you to use WLAN in order to access the University network. The configuration process has already been outlined in the section about mobile pools. Here, we will just give you the Computer Center website where you can find some tips about installation and set-up, as well as some additional information: [http://www.rz.uni-freiburg.de/services/netztel/wlan-vpn/vpnwlan?set\\_language=en](http://www.rz.uni-freiburg.de/services/netztel/wlan-vpn/vpnwlan?set_language=en)>

#### 2.6.1.4 Printing Services

The Faculty of Engineering and the Computer Center both have printers available for students at the PC workstations so that you can print out your documents. Printing costs, however, are not paid on a "goodwill" basis, instead you have to have a separate printing account. You can pay into your account at User Services or at the Computer Center Information Desk. You cannot print anything unless you have a positive balance in your printing account. You can pay into your printing account at User Services in the Hermann-Herder-Straße 10 in Room 001 or at the

Computer Center Information Desk in UB 2 or via MyAccount.

## 2.6.2 Computer Center User Account

As a newly matriculated student, you should receive an e-mail with your user ID and initial password for the Computer Center account. 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
- Confirm that the e-mail address in your account is correct.

Only after having taken these two steps, your user account will be activated and you will be able to use LSF services, such as course and exam registration. You can also check your marks online and print your transcript of marks (“Leistungsübersicht”).

Please make sure to enter your current e-mail address in the Computer Center database, or have your e-mails forwarded. The e-mail address that is stated in your Computer Center account is automatically given to the student registry and to the examination office. If you have not received a user ID from the Computer Center, then you need to contact the Computer Center User Services at [bima@rz.uni-freiburg.de](mailto:bima@rz.uni-freiburg.de). You can also go to their offices at Hermann-Herder-Straße 10. User Services is open from Mo to Fr from 9 am to 12 pm as well as Mo 2 – 4 pm. You should have your UniCard with you at all times anyway, but make sure you bring it with you to User Services for opening an account. Contact User Services as well if your user ID is not accepted, or if you forget your password.

## 2.6.3 Opening Hours

Computer Center (RZ) Hermann-Herder-Straße 10 (incl. Pools)	Mo-Fr: 7 am - 10 pm Sa: 9 am - 1 pm
Pools at the Computer Center Branch in UB 2	Mo-Fr: 9 am - 8 pm Sa: 9 am - 6 pm
Computer Center Branch in the Stefan Meier-Straße 31a (User and PC operating system support)	Mo-Fr: 9 am - 4 pm
User Services Hermann-Herder-Straße 10 (R 001) <a href="mailto:bima@rz.uni-freiburg.de">bima@rz.uni-freiburg.de</a>	Mo-Fr: 9 am- 12 pm, Mo 2-4 pm

General Information/User Support at the Computer Center (RZ), Room103 (Lower Level/UG) Tel.: (0761) 203-4620

Semester:  
Mo-Fr: 10:30  
am - 12:45 pm  
2:15 pm - 5  
pm  
5:30 – 10 pm

Semester  
Breaks:  
Mo-Fr: 10:30  
am - 12:45 pm  
6:45 - 10 pm

General Information Desk at the Computer Center Branch in UB 2, Room 111 D2 (1<sup>st</sup> Floor,/1. OG) Tel.: (0761) 203-4603

Mo-Fr: 09:15  
am - 12:30 pm  
2 pm - 8 pm

Desk in Computer Center (RZ) (Plotter requests and pick-up, issuance of keys...) Tel. (0761) 4618

Mo-Th: 8 am-  
12 pm  
1 pm 6 pm  
Fr: 8 am - 12  
pm  
1 pm - 3:30 pm

Computer Center Library, Ms Werner, Tel.: (0761) 203-4657, [friedhilde.werner@rz.uni-freiburg.de](mailto:friedhilde.werner@rz.uni-freiburg.de)

Please make an appointment or send an email.

## 2.7 UniCard, Student Identity (ID) Card

The UniCard is a chip card that bundles many functions which were previously only available separately. It makes every day 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 your student status. The UniCard simplifies various administrative procedures for students and University employees. This multipurpose card does a lot for you. Use it for cashless payment in the cafeterias, as your library user, copy and right to enter University facilities card. You need it as an authorized parker or to buy and use your semester ticket. The UniCard still has lots of potential to do even more for you, so expect new features in the future.

UniCard =  
Student ID

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

## 2.7.1 Functions

The UniCard already has the following functions and features:

- Forgery Safe Student ID

As explained above, your UniCard is your student ID card. You have to renew the imprint on it every semester. Do this, for example, at the self-service terminal in the ground floor of Building 101 at the Faculty of Engineering (near the elevators).

Cashless  
payment

- Cashless payment in the Cafeterias (Mensen)

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 Card at the add-value terminals found all over campus. You can also add funds to your UniCard with cash at the cafeterias. At the moment, loading with cash does not work at the self-service terminals. You have to use this loading method at the cafeteria check-out. Information about where to find add-value terminals and cashless payment can be found under the following address:

<http://www.verwaltung.uni-freiburg.de/chipkarte/sites/aufwerter.htm>

- Library User Card

This feature has already been explained in the Library section.

- Entrance to Buildings and Rooms

At the Faculty of Engineering, you can enter buildings and rooms outside of the normal opening hours by using your UniCard. In order to do this, you must first receive permission so that your UniCard can be activated to request and receive entry. Perhaps more interesting for you is the possibility of having the bollards at the entrance to the Faculty of Engineering released to give you access to the Faculty parking area. However, you will also need to get a parking permit from the Dean's Office.

**To use the Faculty parking area, you will need a parking permit.**

Longer Access to  
the Pool Rooms

In the same way, you can have your UniCard activated so that you can use the Pool Room at the Faculty of Engineering outside normal opening hours. You can find out more about this in the section Computer Science and Microsystems Engineering Pool Rooms. You can have your UniCard activated for this purpose in the Dean's Office at the Faculty of Engineering.

- Card Extension at the Self-Service Terminals

You can use the UniCard terminals to extend your card after you have successfully re-registered. The new validation information is printed on your card.

UniCard = Copy-  
Card

- User ID for copy machines

At the Faculty of Engineering, you can use your UniCard at the copy machines. The

UniCard = ID  
Card and  
Validation for

copying costs will be deducted from your UniCard balance.

your Semester  
ticket

- RVF Semester Ticket for Public Transportation ID Card

If you have an RVF Semester Ticket, you always have to have your UniCard with you. Otherwise, your semester ticket is not valid. You can find self-service terminal locations under the following URL:

[http://www.unicard.uni-freiburg.de/UniCardTerminals-en/index\\_en\\_html?set\\_language=en](http://www.unicard.uni-freiburg.de/UniCardTerminals-en/index_en_html?set_language=en)

Locations for add-value terminals can be seen at:

<http://www.verwaltung.uni-freiburg.de/chipkarte/sites/aufwerter.htm>

UniCard: Have it  
activated before  
first use.

### 2.7.2 Receiving and Activating your UniCard

After matriculating at the University you will receive the UniCard automatically by post. Now you just have to go to one of the UniCard terminals, insert your card and wait two minutes. It is then activated. If you do not have it activated, it is not a valid student ID. You will pay more for your meals in the cafeterias and cannot use it to buy and use the semester ticket. If you have not received your UniCard, or have questions about it, contact the UniCard team at:

Albert-Ludwigs University  
- UniCard -  
Fahnenbergplatz  
79085 Freiburg  
Tel.: (0761) 203-8893  
Email: [unicard@uni-freiburg.de](mailto:unicard@uni-freiburg.de)

The UniCard Team office hours are held in the Porter's Office at the entrance to the Rector's Office. You can find out the current office hour times on the internet site: [http://www.unicard.uni-freiburg.de/KontaktundSprechstunde-en/index\\_en\\_html?set\\_language=en](http://www.unicard.uni-freiburg.de/KontaktundSprechstunde-en/index_en_html?set_language=en)

If Lost: Have  
your UniCard  
blocked  
immediately.

### 2.7.3 UniCard Loss

If you lose your UniCard, you should have it cancelled immediately. To do this, you need your PUK number. This was sent to you in the letter containing data about your card. To cancel your UniCard, contact the UniCard Team and give them your name (last name, first name), your matriculation number and your PUK number. You can reach the UniCard Team via email at: [unicard@uni-freiburg.de](mailto:unicard@uni-freiburg.de). You can call the UniCard Team under the number (0761) 203-8893 (during office hours) or at (0761) 203-8810 (outside of office hours). If you have lost your card and do not reach anyone by phone, make sure to leave a message on the mail box. 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, the Team needs your photo and, at the moment, the fee of €15. 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 (and your password, if applicable) they could use the public OLAF places to check out books using your account. Please note: According to the University Library User Regulations, you are liable for any misuse of your account. 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 Rector's Office.

UniCard: Re-validate and extend it every semester.

#### 2.7.4 Extending your Card

Your UniCard is only valid up to the date on the card's imprint. In order to keep using all the card's functions, you must have it extended every semester. You can do this at the UniCard terminals. When you have the card extended, the imprint is automatically renewed. By the way, the imprint can be renewed up to 500 times.

Course Transcript Booklet: documents your academic performance.

## 2.8 Course Transcript Booklet

Your Course Transcript Booklet is the little notebook you receive and use to collect and keep all records that prove your participation, attendance, and completion of academic course work (for example certificates "Scheine") In general, it is evidence of your academic achievement at the University. Due to the electronic administration of examination results, the Course Transcript Booklet is losing relevance for Microsystems Engineering students. However, you do need to keep certificates about the current Department semester and any leave of absence semesters in the booklet.

You have to pay your re-registration and student fees every semester.

## 2.9 Re-registration, Administrative and Tuition Fees

Every semester, you must re-register in order to continue your course of study. To do this, you will receive a letter from the University and a bank transfer form to use for paying the re-registration, social insurance, administrative and tuition fees. You must transfer the named amount before the re-registration period ends, otherwise, you will be ex-matriculated. Of course this does not happen immediately. However, if you do not complete the re-registration process and settle your account within the given time frame, you will be charged an additional administrative fee.

Make sure you complete the re-registration process every semester within the allotted time frame!

## 2.10 Cafeteria/Mensa

The cafeteria (Mensa) offers an inexpensive way for you to ensure that you have a healthy and balanced diet. Food is prepared at the cafeteria in accordance with the "German

Society for Nutrition” guidelines. The Student Union operates four cafeterias in Freiburg. They are located in the Rempartstraße, at the Science Campus, in Littenweiler and at the airport (at the Faculty of Engineering). The meals and snacks offered at the various cafeterias can differ. The Student Union provides you with more information about the cafeterias at: <http://www.studentenwerk.uni-freiburg.de/index.php?id=essen-trinken&L=4>

#### 2.10.1 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 (Main Cafeteria Rempartstraße and Science Campus Cafeteria) works.

1. Have a look at the posted menu plan to see what you would like to eat.
2. Then queue up in the line by the item(s) you want to have.
3. If you happen to pass by a cutlery wagon, then go ahead and take a knife, fork, spoon and napkin.
4. While waiting in line, make sure you have your UniCard ready to use for payment.
5. You pay by putting your card on the bar code scanner at the checkout. Wait until the amount has been booked, 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 bring back your tray to the tray return area.

The cafeteria at the Faculty of Engineering (Airport Cafeteria) is, in many ways, a bit different. Here, there are no separate lines for the individual dishes being offered. You also have to take a tray from the tray wagon. A cafeteria employee gives you the food you have requested directly. At the cafeterias at the Science Campus and in the Rempartstraße, your food arrives on a conveyer belt. After finishing your meal at the Airport Cafeteria, you must take back your tray to the tray return area.

#### 2.10.2 Cafeterias in Freiburg

The Student Union operates four cafeterias in Freiburg: They are found in the Rempartstraße, at the Science Campus, in Littenweiler, and at the airport (Faculty of Engineering). We will not be providing you with detailed information about the cafeteria in Littenweiler. It is used mainly by students at the Pädagogische Hochschule (School for those studying to be elementary and middle school teachers) and is not relevant for most Microsystems Engineering Students. At the cafeteria in the Rempartstraße, students of the Humanities and Social and Behavioral sciences are the main “customers”. This is the largest student cafeteria in Freiburg. It offers a wide-range of dining possibilities. The Bistro on the ground floor offers a salad buffet, a pasta buffet, a wok station, grill, a daily special from the counter, snacks kept in the coolers and beverages. On the main floor, you can take the meal of the day from the conveyor belt or choose from two daily specials. Here you will also find another salad buffet in the Cafeteria Pavillion, which also has a wok station, beverages and organic products. For those in a rush, you can take the quick

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

The biggest Cafeteria

plate meal in the Gallery. You can round out your meal with a cappuccino, espresso, or café au lait in the cafeteria Bar found in the foyer. And for your information, the Rempartstraße cafeteria is also open on Saturdays.

Cafeteria Rempartstraße  
Rempartstraße 18  
79098 Freiburg  
Opening Hours During the Semester:  
Lunch: Mo - Fr 11:30 am to 2 pm Sa 11:30 am - 1:30 pm  
Dinner: Mo – Fr 5:30 – 7:30 pm

The cafeteria for  
Natural  
Scientists,  
Mathematicians  
and Physicians

For more information about the cafeteria in the Rempartstraße go to:  
<http://www.studentenwerk.uni-freiburg.de/index.php?id=mensa-rempartstrasse&L=4>

#### Cafeteria Science Campus (Mensa Institutsviertel)

The Natural Science students are the ones who normally meet for meals at the cafeteria at the Science Campus Cafeteria. Guests have the opportunity to select their meals a la carte in two self-service areas or choose between two set menus. There are two large salad buffets, the grill and wok buffet where you can see your food being prepared, a special food event counter and an antipasti buffet.

Science Campus Cafeteria (Mensa)  
Stefan-Meier-Straße 28  
79104 Freiburg  
Opening Hours During the Semester:  
Lunch: Mo to Fr 11:30 am to 2 pm

The Cafeteria for  
Computer  
Scientists and  
Microsystems

You can learn more about the Science Campus Cafeteria under the following URL:  
<http://www.studentenwerk.uni-freiburg.de/index.php?id=mensa-institutsviert&L=4>

#### Cafeteria Airport (Mensa Flughafen)

The Airport Cafeteria is used mainly by students of Computer Science and Microsystems 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. It also functions as a canteen.

Cafeteria Airport  
Georges-Köhler-Allee 082  
79110 Freiburg  
Opening Hours During the Semester:  
Mo to Th 9 am to 3 pm  
Fr 9 am to 2:30 pm  
Student "Mensa" Lunch :  
Mo to Fr 11:45 am to 1:30 pm

Find out more information about the Airport Cafeteria under the URL that follows:  
<http://www.studentenwerk.uni-freiburg.de/index.php?id=mensa-flugplatz&L=4>

### 2.10.3 Dishes and Prices

Depending on which University cafeteria you go to, you will find that the meals and snacks being offered differ from one to the other. All of them usually offer a daily special and some sort of fixed-price menu. At the Airport Cafeteria, there is a second daily special instead of the menu. This is usually the same main course being served at the other cafeterias, just without the extras. Besides the daily special and menu, there is also a “quick plate”, which is the least expensive dish. The Rempartstraße and Science Campus cafeterias also offer a salad buffet. At the Airport Cafeteria, you can purchase a ready-made salad plate. All the cafeterias offer a choice of side dishes (for example pudding or an extra portion of salad) and desserts (for example yogurt or ice cream) which you can buy. Prices are listed in the cafeterias. The meal prices for students are:

Costs: lots of variety at unbeatable prices

“Quick Plate” €1.50  
Meals 1 & 2 (Airport) €2.60  
Meals 1 & 2 (Rempartstraße, Science Campus) €2.65  
Daily Special (Rempartstraße) €2.35  
Buffet (Rempartstraße, per 100g) €0.85  
Buffet (Science Campus, per 100 g) €0.80  
Evening Buffet Science Campus (per 100 g) €0.75 Euro

You can have a look at the meal plans for the various cafeterias under the address:

[http://www.studentenwerk.uni-freiburg.de/index.php?id=speiseplaene&no\\_cache=1&L=4](http://www.studentenwerk.uni-freiburg.de/index.php?id=speiseplaene&no_cache=1&L=4)

Ride half a year on buses, trams and trains for only €73!

## 2.11 Semester Ticket

### 2.11.1 What is a semester ticket and where, and for how long is it valid?

The semester ticket is valid for using public transportation in the network for the ÖPNV and has been available to students since winter semester 2002/2003. It costs you €73 per semester, and you can use it on the entire ÖPNV network for regional public transportation in the greater Freiburg area. (RVF) This area includes:

- The city of Freiburg
- The area Landkreis Breisgau-Hochschwarzwald
- The area Landkreis Emmendingen
- All trams, busses and trains in the network are included (2nd Class)

UniCard: always have it with you when you use public transportation.

Students at all of Freiburg’s institutions of higher education can take advantage of this offer. This means those studying at the School for Elementary and Middle School Teachers (Pädagogische Hochschule), Public School for Music (Staatliche Hochschule für Musik), and the Catholic and Protestant Institutions for Higher Education (Katholische und Evangelische Fachhochschulen). Every student makes a solidarity contribution of € 17 per semester which is included in the social insurance fees you pay. Because of your solidarity contribution, you can take the VAG night buses at a reduced rate, even if you have not purchased a semester ticket. The tickets are valid from October to March (winter semester) and from April to September (summer semester) and include the times between

terms.

Your ticket is only valid if you have your activated and valid UniCard (or your valid ID from one of the other Freiburg institutions of higher learning) with you when you are traveling. You must write your name and matriculation number on the ticket and also sign it, otherwise, you may have to pay a €60 fine for “fare jumping”.

More information about the semester ticket can be found under the following URL:  
[http://www.rvf.de/Semesterticket\\_english.php](http://www.rvf.de/Semesterticket_english.php)

#### 2.11.2 Where can I buy a semester ticket?

You can purchase a semester ticket at the following offices and agencies:

- at the “VAG-Pluspunkt” (Customer Service Center for the Freiburg Transportation Agency, Salzstraße 3, near the Bertoldsbrunnen)
- at the SBG Customer Service Center at the Central Bus Station next to the Main Train Station (ZOB)
- at all German Rail travel agencies (DB-Reisezentren)
- at GLEISNOST very near the City Theater (Stadttheater), Bertoldstraße 44, just a few steps away from the University
- at GLEISNOST in the train station in Littenweiler, near the PH

You must show your UniCard when purchasing the ticket, which costs €73.

#### 2.11.3 Should I buy a semester ticket?

It makes sense to buy a semester ticket if you use public transportation every now and then, or on a regular basis. It is also a good idea to have one if you take occasional short trips in the area, visit family or friends in the region, like to leave your bike at home when it rains or just want to do without a bike altogether.

## 3 Further Sources of Information and Assistance

### 3.1 Student Services (Studentenwerk)

The Student Services of Freiburg has about 450 employees serving over 32,000 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 social fees which you pay each semester.

The Student Services can help you with all sorts of services and problems. From getting liability insurance to finding baby-sitters or student housing or giving legal advice, their assistance can be very useful. Find out more about how they may be able to help you under the Student Union website at: <http://www.studentenwerk.uni->

Student Housing,  
Financial Aid,  
Excursions and  
Advising

[freiburg.de/index.php?id=start&L=4](http://www.studentenwerk.uni-freiburg.de/index.php?id=start&L=4)

The following highlights a few of the interesting services and activities offered by the Student Services. They regularly organize short trips and excursions. Going on them is a great way to meet lots of people from other faculties and countries. You can have a look at the current Student Services program of events at:

[http://www.studentenwerk.uni-freiburg.de/index.php?id=aktuell-termine&no\\_cache=1&L=4](http://www.studentenwerk.uni-freiburg.de/index.php?id=aktuell-termine&no_cache=1&L=4)

In addition to running the cafeterias, the Student Services also operates various student housing facilities. You can get information about student housing here:

<http://www.studentenwerk.uni-freiburg.de/index.php?id=wohnen&L=4>

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

<http://www.studentenwerk.uni-freiburg.de/index.php?id=bafog-finanzen&L=4>

At the Student Services, you can also get assistance and advice with such issues as legal questions, social or psychological problems or finding a job or a room. They offer a variety of courses and tandem programs where it is possible for you to get in touch, and build relationships with students from other countries. This is a way to learn more about other cultures and improve your language skills at the same time. More information can be found in the internet under:

<http://www.studentenwerk.uni-freiburg.de/index.php?id=beratung-soziales&L=4>

You can also drop by the information office in Schreiberstraße

Student Services Freiburg  
Schreiberstraße 12-16  
79098 Freiburg  
Tel.: (0761) 2101-200  
Fax: (0761) 2101-303  
Email: [swfr@studentenwerk.uni-freiburg.de](mailto:swfr@studentenwerk.uni-freiburg.de)

To find the right contact person, check out the list of telephone numbers organized according to areas of responsibility at: <http://www.studentenwerk.uni-freiburg.de/index.php?id=kontakte>

## 3.2 STUDIUM GENERALE

The STUDIUM GENERALE offers students, instructors and residents of Freiburg and the surrounding region a wide variety of events and activities. The goal of the STUDIUM GENERALE is to foster interaction between subjects from the humanities and natural sciences, and thereby, highlight similarities and find common ground. The courses and lectures offered in the STUDIUM GENERALE should further serve to provide a welcome contrast to the predominantly intellectually-oriented academic life, and create more union and harmony between educational and personal spheres.

Bring balance and harmony into your life instead of focusing solely on intellectual pursuits.

The STUDIUM GENERALE offers the following events and activities:

- Courses

The course program in the STUDIUM GENERALE is divided into several areas:

Choose from a wide range of courses, seminars and events.

- Paths to Success

Having a sound education is not always enough. It is increasingly important to acquire additional qualifications which allow you to realize your own possibilities and skills, and have the ability to show-case your personality, talents and qualities. Courses in this section will show you ways to improve your personal chances for success. Included regularly are classes in Rhetoric, poise and various introductions to basic software.

- Art Circles

Being able to express yourself artistically or being skilled at an art or craft broadens your horizons. This can also prove to be a welcome change to everyday life at the University. Classes typically offered here involve areas such as dance, drawing and photography.

- Nature and Landscapes

Themes in this area deal with our environment. Meant here is not only the natural world, but also cultural advancements and achievements. Expert course leaders will help you discover your environment. Most of the classes also involve guided tours and walks centered around particular themes.

- Body and Soul

If you want to be able to bear up under the constantly growing pressure to perform in your studies or career, you need a certain measure of equanimity. A state of harmony between your body, mind, spirit and soul also helps you to enjoy life to the fullest. Your intellect receives enough stimulation and challenge at the University, and therefore it is important to make sure that you are not neglecting the other areas. There are techniques to help you relax and raise your awareness which you can try out in courses offered in this area. Some of them include: Yoga, Tai Ji Quan, Autogenic Training and Voice Exercise and Relaxation.

- Seminars, Concerts, Theater, Readings, Lectures, *Colloquium Politikum*

As offerings for seminars, concerts, theater, readings, lectures and the *Colloquium Politikum* generally deal with a particular topic or theme, please see the current version of the program either in print form or on the STUDIUM GENERALE homepage for details. Most of these events are also suitable for lay persons.

- Additional Activities and Events

Here again, the best way to find out about additional activities and events is to check the STUDIUM GENERALE program. The internet address is:

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

You can also order here the newsletter which provides current information to help you keep up with what themes, topics and events STUDIUM GENERALE is offering.

The print version of the STUDIUM GENERALE program is distributed all around campus.

You can register to take part in events, activities and courses either by using the internet, or through the STUDIUM GENERALE office at:

STUDIUM GENERALE:  
Belfortstraße 20, 1st Floor

79085 Freiburg  
Tel.: (0761) 203-2003  
Tax: (0761) 203-2040  
Email: [Ingrid.Goetsch@studgen.uni-freiburg.de](mailto:Ingrid.Goetsch@studgen.uni-freiburg.de)

Please note the deadlines and dates for registration. You can find this information in the printed program or on the internet homepage.

### 3.3 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. Additionally, there are other classes that require you to pay a course fee. 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.

Sport keeps you healthy.

The University Recreational Sport Program can be found at numerous locations around the campus.

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  
Fax: (0761) 203-45 47  
Email: [ahs@sport.uni-freiburg.de](mailto:ahs@sport.uni-freiburg.de)

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

### 3.4 Social Aspects

#### 3.4.1 Meeting People

At the beginning of your first semester, everything is new and a bit strange, and normally, you do not know anyone here unless you come from the area. The easiest way to meet new people is in the tutorial groups. Here the number of other students is small enough so as not to be overwhelming. Lectures present a bit of a different situation, but do not be shy about speaking to the people sitting around you. After all, they are all in the same boat as you are! Most of your classmates will be glad if you make the first move here, because then they do not have to do it themselves. If the lecture is just before lunch, you might suggest going to the cafeteria together, as it is a good idea to try and sit with people from your classes, especially at the start. You also have plenty to talk about in regards to your studies. This is a topic of interest to everyone and so there will be lots to say.

Be proactive: strike up conversations with your classmates.

Take the initiative and strike up conversations with classmates. You are all in the same

situation and it is nice to meet new people

### 3.4.2 Where you can get involved

Learn for life:  
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 “Marketing between Theory and Practice” group, the academic film club and many, many more places for you to meet new people with similar interests. The following list gives you internet addresses from a whole host of organizations where you are welcome to participate. You can get details about the individual groups by clicking on the corresponding link on the list at:

[http://www.uni-freiburg.de/universitaet-en/fakultaeten-einrichtungen/alle/alle-einrichtungen.html?set\\_language=en](http://www.uni-freiburg.de/universitaet-en/fakultaeten-einrichtungen/alle/alle-einrichtungen.html?set_language=en)

## 3.5 An Overview of the Most Important Links

University Freiburg

[http://www.uni-freiburg.de/start-en.html?set\\_language=en](http://www.uni-freiburg.de/start-en.html?set_language=en)

Department of Microsystems Engineering

[http://www.imtek.uni-freiburg.de/content/news\\_en.php?typ=10&gruppe=1](http://www.imtek.uni-freiburg.de/content/news_en.php?typ=10&gruppe=1)

Faculty of Engineering

[http://www.tf.uni-freiburg.de/index\\_html-en?set\\_language=en](http://www.tf.uni-freiburg.de/index_html-en?set_language=en)

Online Lectures at the Faculty of Engineering

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

Student Services

<http://www.studentenwerk.uni-freiburg.de/index.php?id=start&L=4>

Student Advising Microsystems Engineering

[http://www.imtek.de/content/stud\\_kontakt\\_en.php](http://www.imtek.de/content/stud_kontakt_en.php)

Examination Office

[http://www.tf.uni-freiburg.de/facilities/examination-office/index\\_englisch.html?set\\_language=en](http://www.tf.uni-freiburg.de/facilities/examination-office/index_englisch.html?set_language=en)

Exam registration

<http://www.tf.uni-freiburg.de/Institute/dekpamt/sb-studierende>

Departmental Student Committee

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

Pool Manager, Faculty of Engineering

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

WLAN

<http://mopo.informatik.uni-freiburg.de/node>

[http://www.rz.uni-freiburg.de/helpcenter-en/faq-en/nb\\_wlan-en?set\\_language=en](http://www.rz.uni-freiburg.de/helpcenter-en/faq-en/nb_wlan-en?set_language=en)

Course Catalog (VVZ) University Freiburg

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

Course schedules of the Faculty of Engineering

[http://www.tf.uni-freiburg.de/Studium\\_und\\_Lehre](http://www.tf.uni-freiburg.de/Studium_und_Lehre)

Module Handbook

[http://www.tf.uni-freiburg.de/Institute/dekpaamt/modulhandbuecher/modulhandbuecher.html?set\\_language=de](http://www.tf.uni-freiburg.de/Institute/dekpaamt/modulhandbuecher/modulhandbuecher.html?set_language=de)

[http://www.tf.uni-freiburg.de/Institute/dekpaamt/modulhandbuecher/modulhandbuecher.html?set\\_language=de](http://www.tf.uni-freiburg.de/Institute/dekpaamt/modulhandbuecher/modulhandbuecher.html?set_language=de)

German language courses

[www.sli.uni-freiburg.de](http://www.sli.uni-freiburg.de)

International Admissions and Services

[www.ias.uni-freiburg.de](http://www.ias.uni-freiburg.de)

International Office

[www.io.uni-freiburg.de](http://www.io.uni-freiburg.de)

Dormitories

<http://www.studentenwerk.uni-freiburg.de/index.php?id=wohnheime&L=4>

Private accommodation

<http://www.studentenwerk.uni-freiburg.de/index.php?id=zimmervermittlung&L=4>

<http://www.io.uni-freiburg.de/apartment/wohnungsdb-en>

<http://zypresse.com>

[www.badische-zeitung.de/anzeigen](http://www.badische-zeitung.de/anzeigen)

[www.studenten-wg.de](http://www.studenten-wg.de)

[www.wg-gesucht.de](http://www.wg-gesucht.de)

Menu for all Cafeterias

<http://www.studentenwerk.uni-freiburg.de/index.php?id=essen-trinken&L=4>

STUDIUM GENERALE

<http://www.studiumgenerale.uni-freiburg.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

[www.bahn.de](http://www.bahn.de)

Scholarships

<http://www.studentenwerk.uni-freiburg.de/index.php?id=stipendien&L=4>

Trips and excursions

[http://www.studentenwerk.uni-freiburg.de/index.php?id=studitours&no\\_cache=1&L=4](http://www.studentenwerk.uni-freiburg.de/index.php?id=studitours&no_cache=1&L=4)

Meeting people

<http://www.studentenwerk.uni-freiburg.de/index.php?id=fam-for-int-friendsh&L=4>

<http://www.studentenwerk.uni-freiburg.de/index.php?id=international-tandem>

<http://www.studium.uni-freiburg.de/international-en/incoming-en/allgemein-en/betreuung-en/kontaktgruppen-en.html>

### 3.6 Overview of the most important Dates and Deadlines

The following is a list of the most important dates and deadlines for winter semester 2010/2011.

Re-registration and Academic Leave Period	January 15 to February 15, 2011
Examination Period	Feb 28, 2011 to March 31, 2011
Examination Registration Period	October 1, 2010 to February 12, 2011
Christmas Break	December 24, 2011 to January 6, 2011
Semester Break	February 13 to May 1, 2011

Keep the examination schedule in mind when planning your holidays!

### 3.7 Overview of the most important contact persons

**Dean of Academic Affairs:**

Prof. Thomas Stieglitz, Tel. 203-7471, [stieglitz@imtek.uni-freiburg.de](mailto:stieglitz@imtek.uni-freiburg.de)

**Study advisors:**

Dr. Andreas Greiner, Tel. 203-7384, [greiner@imtek.uni-freiburg.de](mailto:greiner@imtek.uni-freiburg.de)

Dr. Oswald Prucker, Tel. 203-7164, [prucker@imtek.uni-freiburg.de](mailto:prucker@imtek.uni-freiburg.de)

**Programme Co-ordinator:** Ursula Epe, Tel. 203-8340, [epe@tf.uni-freiburg.de](mailto:epe@tf.uni-freiburg.de)

**Examination office:** Friederike Schneider, Tel. 203-8083, Marianne Zeiser, Tel. 203-8087, [pruefungsamt@tf.uni-freiburg.de](mailto:pruefungsamt@tf.uni-freiburg.de)

### 3.8 Study plan MSc. Microsystems Engineering

**Semester 1**

Micro-electronics

Micro-mechanics

Micro-optics

Sensors

Probability and statistics

MST technologies and processes

MST design lab I

**Semester 2**

MST design lab II

Assembly and packaging technology

Micro-fluidics

Biomedical microsystems

Dynamics of MEMS

Micro-actuators

Signal processing

**Semester 3 and 4**

Concentration courses (electives) and Master's thesis

Choose two out of the following eight concentration areas and complete a total of 24 ECTS credit points in both areas together. The minimum ECTS points to be completed per areas is 9:

- Circuits and systems
- Design and simulation
- Life sciences: Biomedical engineering
- Life sciences: Lap-on-a-chip
- Materials
- MEMS processing
- Sensors and actuators
- Personal profile

Please note that in some concentration areas it is recommended to start in the second semester, because beginners' courses are only offered in the summer semester.

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[www.imtek.uni-freiburg.de](http://www.imtek.uni-freiburg.de)

Participants:

Aman Noor

Adina Widmann

Ursula Epe

Gina Billy

Friederike Schneider

Dr. Andreas Greiner

## Disclaimer

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# Glossary

## AStA

The AStA is the general students' union executive committee. Here in Baden-Württemberg, this means something like "the student members and their chosen alternates (up to a certain number) of an institution of higher education's senate". The AStA is permitted to give opinions and be active in musical, cultural, athletic, interdisciplinary and perhaps social issues. It may not be involved in political activities. More information about AStA can be found at: <http://www.asta.uni-freiburg.de/>

## 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.

## Cafeteria (*Mensa*)

These are a bit like canteens or self-serve restaurants where students can eat healthy, inexpensive meals. The cafeteria meals are subsidized by the Student Union, which helps keep the prices down. Normally, there is at least one vegetarian dish on the menu

## Classmate (*Kommilitone, Kommilitonin*)

This is the expression used at university for a fellow student who is studying with you, normally in the same semester.

## Course Catalog (*Vorlesungsverzeichnis VVZ*)

This is a list of all courses and events at the University organized according to the faculties. Many faculties also place their Course Catalog on the internet and these are usually more up-to-date than the printed versions. Some faculties also provide course catalogs which contain comments. These provide more detail and information.

## 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 Academic Affairs (*Studiendekan*)

The Dean of Academic Affairs 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 devise class

schedules and 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.

### **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 and the Department of Microsystems Engineering.

### **Lecture Hall (*Hörsaal*)**

The room in which lectures are held.

### **Lending Library (*Leihbücherei*)**

You can borrow books from a lending library.

### **Matriculation Number (*Matrikelnummer*)**

This is your personal student identification number.

### **Module (*Modul*)**

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

### **Module Handbook (*Modulhandbuch*)**

The Module Handbook 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**

A pool is a collection of networked computers and peripheral equipment found in one room.

**Pool Manager**

The pool manager is in charge of the student 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 methods of public transportation in Freiburg and its surroundings which is valid for one semester.

**s.t.**

See c.t.

**Student Services (*Studentenwerk*)**

An administrative organization at an institution of higher learning responsible for operating cafeterias, assigning student housing and over-seeing student dormitories. The Student Union also offers numerous advisory services for students.

**TF**

Abbreviation for the “Technische Fakultät” (Faculty of Engineering). The TF includes the Departments of Computer Science and Microsystems Engineering.