

M.Sc. Embedded Systems Engineering (ESE)

Faculty of Engineering
University of Freiburg

Albert-Ludwigs-Universität Freiburg



**UNI
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I'll show you...



1. How to organize your studies
2. Some administrative things
3. Some important rules regarding exams
4. Where you can get information and help

Part 1



Syllabus / Study Plan

New exam regulations introduced in WS 2021/22 (PO version 2021)



- New version of exam regulations with new syllabus since winter semester 2021/22
(So some of the lecturers are not used to all the new details, yet...)
- Quite a few differences to previous regulations; be careful when talking to other ESE Master students without knowing, which regulations they follow!

Vocabulary you should know... part 1



Modules = building blocks of the syllabus

- Consist of various elements (different symbols/icons in study planner)
- Credits are given for complete module, no „partial credits“



Courses in the ESE program:

- Lectures – Vorlesung (V)
- Exercises – Übung (Ü)
- Lab courses – Praktikum / Praktische Übung (Pr)
- Seminars – Seminar (S)
- Projects – Projekt (*also* Pr)

Vocabulary you should know... part 2



Graded assessments or pass/fail:



■ Coursework or pass/fail assessments (“Studienleistungen”, SL)

- Part of module or final assessment
- May be graded, or only “pass” or “fail”
- Not part of the final grade
- No negative consequences if failed (apart from having to repeat → “time penalty”)



■ Graded assessments /Exams (“Prüfungsleistungen”, PL)

- Always graded
- Always counts into the final grade
- Strict rules/regulations and very limited number of attempts

Syllabus: General structure



18 ECTS
(3 lectures)
from
**Essential
Lectures
in Computer
Science**

18 ECTS
(3 lectures)
from
**Advanced
Micro-
systems
Engineering
(MSE)**

18 ECTS
from
**Elective
Courses
in Computer
Science**
Specialization
Courses
(6 ECTS each)
and/or up to
2 Seminars
(3 ECTS each)
or 1 Study project
(18 ECTS)

18 ECTS
from
one of the
**Concen-
tration Areas
in Micro-
systems
Engineering**

For optional
specialization in one
of the areas (AI,
CPS, Circuits and
Systems, Materials
and Fabrication,
Biomedical
Engineering,
Photonics):
at least 30 ECTS
from according
courses (*not
projects!*) + Master
Thesis with related
topic

18 „flexible“ ECTS: courses chosen from one or more of the 4 areas
above *and/or* from the so-called **Customized Course Selection**

30 ECTS Master Thesis + Colloquium

Syllabus: Rules



- 4 mandatory areas with 18 ECTS each
 - 2 Computer Science (Essential Lectures in CS + Elective Courses in CS)
 - 2 MSE (Advanced MSE + Concentration Area in MSE)
- Remaining 18 ECTS have to be distributed among
 - Either one or more of the above mentioned areas
 - And/or the Customized Course Selection (CCS)
*(Note: This is **not** the name for these 18 „flexible“ credits!)*
- You are not allowed to take more courses than necessary, to meet these requirements
- In general, you have to plan so you hit the 90 credits exactly (no „overshooting“ of credits, unless maybe when taking pass/fail courses from other subjects or language courses in CCS)

Essential Lectures in Computer Science



Module (take courses up to at least 18 ECTS)	ECTS	Semester (recommended) when starting in winter semester
Algorithm Theory (course type: advanced lecture)	6	1 or 3
Cyber-Physical Systems – Discrete Models (course type: specialization course)	6	1 or 3
Databases and Information Systems (course type: advanced lecture)	6	1 or 3
Introduction to Embedded Systems (course type: specialization course)	6	1 or 3
Machine Learning (course type: advanced lecture)	6	1 or 3
Computer Architecture (course type: advanced lecture)	6	1 or 3
Foundations of Artificial Intelligence (course type: advanced lecture)	6	2
Image Processing and Computer Graphics (course type: advanced lecture)	6	2
Software Engineering (course type: advanced lecture)	6	2

Advanced Microsystems Engineering (MSE)



Module (take courses up to at least 18 ECTS)	ECTS	Semester (recommended) when starting in winter semester
Assembly and Packaging Technology	6	1, 2 or 3
Micro-electronics	6	1 or 3
Micro-mechanics	6	1 or 3
Micro-optics	6	1 or 3
Modelling and System Identification	6	1 or 3
MST Technologies and Processes	6	1 or 3
Sensors	6	1 or 3
Signal Processing	6	2
Probability and Statistics (This can't be taken as part of the 18 mandatory credits, only if you opt to do more ECTS in this area!)	6	1 or 3

Elective Courses in Computer Science



You have to take courses up to **at least 18 ECTS**.

The maximum (if you do not take more than the bare minimum 18 ECTS anywhere else) would be 36 ECTS.

You can choose from

- Specialization Courses in Computer Science (6 ECTS each)
- *And/or* up to 2 Seminars (3 ECTS each)
- *And/or* 1 Study project (18 ECTS)
(Please be aware that you cannot surpass the 36 ECTS here or the 90 ECTS overall, so plan carefully if you intend to take the study project!)

Concentration Areas in MSE



You have to choose **one area** and complete courses up to **at least 18 ECTS**. If you choose to take more than this, the surpassing courses can be from another area or the same. (The maximum would, again, be 36 ECTS, if you do no courses in any other area.)

The 4 Concentration Areas are:

- **Circuits and Systems**
- **Materials and Fabrication**
- **Biomedical Engineering**
- **Photonics**

Customized Course Selection

What it is:

Instead of completing some or all of the 18 „flexible“ credits by taking courses in one or more of these 4 areas, you can take some courses (max. 18 ECTS) in the so-called Customized Course Selection.

Here, you can choose from

- Pass/fail courses (*Studienleistungen*) from Computer Science or MSE (like lab courses in CS, Scientific Writing or Project Management in MSE)
- **One** language course (esp. German courses from SLI for international students)
(please note: **not** from the „Zentrum für Schlüsselqualifikationen“ / BOK area!)
- Selected courses from other departments / faculties, like from the Economics Department
(*not in planner of studies – application required*)



Customized Course Selection

What it is **not**:

The Customized Course Selection is **NOT** the name for the 18 “flexible credits“!

That seems to be a **common misunderstanding**. But Customized Course Selection is simply the name for these certain pass/fail courses.

So, please don't ask the examination office or myself to „*move the MSE concentration course XY*“ or „*the lecture YZ from Elective Courses in Computer Science*“ **to** the CCS. Because that is impossible. Courses have their defined area(s) and they stay where they are.

Also: Be aware that the rules regarding the Customized Course Selection are different in the MSE study program, when talking to other students or lecturers!



Optional specialization



You can choose to do a specialization in your study program (which will be shown on the final documents). There are 6 specializations available:

- Artificial Intelligence (AI) (*courses see according table on website*)
- Cyber-Physical Systems (CPS) (*courses see according table on website*)
- Circuits and Systems (i.e. the MSE Concentration)
- Materials and Fabrication (i.e. the MSE Concentration)
- Biomedical Engineering (i.e. the MSE Concentration)
- Photonics (i.e. the MSE Concentration)

The requirements are:

- You have to take courses with **at least 30 ECTS** from the according specialization category
(Please note: Projects, seminars or lab courses in Comp. Sc. do not count!)
- You have to do a **Master Thesis** with a related topic

Courses belonging to AI resp. CPS specialization



Lectures belonging to the specialization area Cyber-Physical Systems	Lectures belonging to the specialization area Artificial Intelligence
<p>Advanced Lectures</p> <ul style="list-style-type: none">• Rechnerarchitektur / Computer Architecture• Softwaretechnik / Software Engineering	<p>Advanced Lectures</p> <ul style="list-style-type: none">• Image Processing and Computer Graphics• Foundations of Artificial Intelligence• Machine Learning
<p>Specialization Courses</p> <ul style="list-style-type: none">• Advanced Algorithms• Algorithms for Wireless Communication• Automated Machine Learning• Blockchain and Cryptocurrencies• Compiler Construction• Cyber-Physical Systems – Discrete Models• Cyber-Physical Systems – Program Verification• Debugging and Fuzzing• Einführung in Embedded Systems / Introduction to Embedded Systems• Embedded Systems Entrepreneurship (2ES)• Formale Methoden für Java / Formal Methods for Java• Funktionale Programmierung / Functional Programming• Hardware Security and Trust• Modellbildung und Systemidentifikation / Modelling and System identification• Numerical Optimization• Numerical Optimal Control in Science and Engineering• Quantitative Verifikation / Quantitative Verification• Test und Zuverlässigkeit / Test and Reliability• Verteilte Systeme / Distributed Systems	<p>Specialization Courses</p> <ul style="list-style-type: none">• Advanced Computer Graphics• Advanced Deep Learning• Automated Machine Learning• Bioinformatics I• Bioinformatics II• Computer Vision• Einführung in die Multiagentensysteme / Introduction to Multiagent Systems• Embedded Systems Entrepreneurship (2ES)• Foundations of Deep Learning• Information Retrieval• Introduction to data driven life sciences• Introduction to Mobile Robotics• Programm Verifikation in Isabelle/HOL• Reinforcement Learning• Robot Mapping• SAT Solving• Simulation in Computer Graphics• Spieltheorie / Game Theory• Statistical Pattern Recognition

Master thesis



- Master thesis (27 ECTS) graded
- Colloquium (= Presentation / Defense) (3 ECTS) graded
- Admission to thesis:
at least **72 ECTS** credits
(plus conditional courses from admission, if applicable)
- Duration: 6 months

More information:

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



Administrative things

Some practical advice, general facts and recommendations



- Most courses are offered every other semester (i.e. once a year); some can be held more irregularly; should be mentioned in the module handbook (see HISinOne or PDF)
- Overlapping courses...
With the amount of courses and the flexible curriculum, this just happens.
Basically: Find a way to deal with it!
(Meaning: Choose one course for this semester, do the other one in year; or check for lecture recordings, or...)
- Be aware that you might need to adapt your original study plan

Some practical advice, general facts and recommendations



- Usually no dependencies regarding order of courses
 - Nevertheless, check with lecturers for appropriate combinations or recommended order of courses
- Most prerequisites stated in the course catalog are recommendations, they are not mandatory; well, a few of them are...
Just read what is said in the description!

Conditional admission: What does this mean?



- Conditions have to be fulfilled **in addition** to the normal Master's curriculum → likely to extend your study time
- You have to complete the required modules by the end of the second semester.
They should be your top priorities! (Especially in case of course collisions/overlaps)
- You will be **automatically registered for these courses** as well as exams. If you should decide not to take the exam in the intended semester (after the course), you have to contact the examination office to de-register.
- **Exams** required for conditional admission **can only be repeated once.**

Advice for your next steps



- Study the course catalog / planner of studies
(*What courses are offered right now?*)
- Generally, check out a few more courses than you intend to complete in the given semester
- Register (via HISinOne → “Booking of courses”) for the courses you want to take as soon as possible
- Information on dates and deadlines for course booking:
<https://www.tf.uni-freiburg.de/en/studies-and-teaching/calendar-dates>
→ Booking deadlines for Bachelor and Master courses
- **Read the official exam regulations!**
(= *terms and conditions of your study program*)
https://www.tf.uni-freiburg.de/bilder/studium_lehre/englische-poen/exam-regulations-msc-ese-po-2021

Registering for/ Booking of courses



- Have a look at your *planner of studies* <https://campus.uni-freiburg.de>
- Follow instructions from [short demonstration here](#)
- If you have questions or made a mistake while booking: **Contact** Ms. Moses in the Dean's office: moses@tf.uni-freiburg.de or myself
(Screenshots are really helpful)

Be aware: **Different course types have different deadlines!**

If you forgot to book a course:

- Contact the lecturer and ask if there are still seats available and if it generally makes sense to start late
- The examination office **can't** help you with this!

HISinOne Demo: Login and Planner of Studies



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

The screenshot displays the HISinOne web interface for the University of Freiburg. The top navigation bar includes 'Home', 'My Studies' (highlighted with a red circle), 'Studies offered', 'Organisation', 'User information', and 'Help'. Below the navigation bar, the breadcrumb trail reads 'You are here: Home > My Studies > Planner of studies with Module plan'. The main heading is 'Planner of studies with Module plan Master of Science, Embedded Systems Engineering, Hauptfach, PO 2021', with 'Planner of studies' circled in red. The interface includes buttons for 'Show Module plan' and 'Printview', and a 'Semester: winter semester 2022' indicator. There are two filter sections: 'Courses' and 'Exams, non-graded works', each with 'All', 'None', and 'Only organized' options. A search bar is located on the left, and 'Expand all' and 'Collapse all' (circled in red) buttons are on the right. The bottom section shows a table with columns for 'Structure of examination regulations - All subject related semesters', 'Actions', and 'Status'. The table lists two entries: '11LE50PO-MSc-787-2021 - Embedded Systems Engineering, M.Sc., PO 2021' and '11LE50KT-9000-MSc-787-2021 - Master of Science/M.Sc. - 120.0 ECTS'.

HISinOne Demo: Planner of Studies – Different views



- Use the correct view: Examination regulations

The screenshot shows the HISinOne interface for the 'Planner of studies with Module plan Master of Science, Embedded Systems Engineering, Hauptfach, PO 2021'. A red arrow points to the 'Show examination regulations' button. A red 'X' is drawn over the main table of modules, indicating that this view is not the correct one for examination regulations.

Navigation: Home | **My Studies** | Studies offered | Organisation | User information | Help

You are here: Home > My Studies > Planner of studies with Module plan

Planner of studies with Module plan Master of Science, Embedded Systems Engineering, Hauptfach, PO 2021

Buttons: Show examination regulations (highlighted with red arrow), Printview

Checkboxes: Original Module plan, My modules

Semester 1 WS 2022/23	Semester 2 SS 2023	Semester 3 WS 2023/24	Semester 4 SS 2024	Semester 5 WS 2024/25	Semester 6 SS 2025
Algorithms and Data Structures -/3	Real-Time Operating System -/6	MSE Study Project in Concer -/9	Mastermodul / Master Module -/30	Constraint-Satisfaction-Probl -/6	
Computer Science Theory - B -/6	Seminar 2 -/3		Nano-Photonics - Optical mar -/6		
	Ingenieurwissenschaft trifft auf Biologie / Engineering meets Biology -/6				
Seminar Integrated Photonics -/3	Seminar 1 -/3	MSE Study Project in Concer -/9			

HISinOne Demo: Examination regulations structure



Structure of examination regulations - All subject related semesters		Actions	Status
▼	11LE50PO-MSc-787-2021 - Embedded Systems Engineering, M.Sc., PO 2021		
▼	11LE50KT-9000-MSc-787-2021 - Master of Science/M.Sc. - 120.0 ECTS		
●	11LE50KT-8609-MSc-787-2021 - Preliminary average grade M.Sc. Embedded Systems Engineering (PO-Version 2021)		
▼	11LE50KT-9991-MSc-787-2021 - ECTS Credit Account Master of Science in Embedded Systems Engineering (PO-Version 2021) - 120.0 ECTS		
▶	11LE50KT-9991-MSc-787-2021-MM - Mastermodul / Master Module - 30.0 ECTS		
▼	11LE50KT-MSc-787-2021-CS - Informatik Computer Science		
▶	11LE50KT-MSc-787-2021-EssentialCS - Essential Lectures in Computer Science		
▶	11LE50KT-MSc-787-2021-ElectiveCS - Elective Courses in Computer Science		
▼	11LE50KT-MSc-787-2021-MSE - Microsystems Engineering		
▶	11LE50KT-MSc-787-2021-AdvancedMSE - Advanced Microsystems Engineering		
▶	11LE50KT-MSc-787-2021-ConcentrationsMSE - Microsystems Engineering Concentrations Area		
▶	11LE50KT-MSc-787-2021-CCS - Customized Course Selection - 18.0 ECTS		
●	gÜK - globales Überlaufkonto		

HISinOne Demo: Module – Courses – Assessments



Structure of examination regulations - All subject related semesters	Actions	Status
11LE50PO-MSc-787-2021 - Embedded Systems Engineering, M.Sc., PO 2021		
11LE50KT-9000-MSc-787-2021 - Master of Science/M.Sc. - 120.0 ECTS		
11LE50KT-8609-MSc-787-2021 - Preliminary average grade M.Sc. Embedded Systems Engineering (PO-Version 2021)		
11LE50KT-9991-MSc-787-2021 - ECTS Credit Account Master of Science in Embedded Systems Engineering (PO-Version 2021) - 120.0 ECTS		
11LE50KT-9991-MSc-787-2021-MM - Mastermodul / Master Module - 30.0 ECTS		
11LE50KT-MSc-787-2021-CS - Informatik Computer Science		
11LE50KT-MSc-787-2021-EssentialCS - Essential Lectures in Computer Science		
11LE13MO-2010 ESE PO 2021 - Algorithms Theory - 6.0 ECTS		
11LE13MO-2020 ESE PO 2021 - Computer Architecture - 6.0 ECTS		
11LE13MO-2070 ESE PO 2021 - Cyber-Physical Systems – Discrete Models - 6.0 ECTS		
11LE13V-2070 - Cyber-Physikalische Systeme – Diskrete Modelle / Cyber-Physical Systems – Discrete Models - Lecture - lecture course - 6.0 ECTS	apply	
11LE13Ü-2070 - Cyber-Physikalische Systeme – Diskrete Modelle / Cyber-Physical Systems – Discrete Models - Exercises - exercise course (1 of 3)	apply	
11LE13SL-2070 - Cyber-Physikalische Systeme - Diskrete Modelle / Cyber-Physical Systems – Discrete Models - course work		
11LE13PL-2070 - Cyber-Physikalische Systeme – Diskrete Modelle / Cyber-Physical Systems – Discrete Models - Examination - 6.0 ECTS		
11LE13MO-2060 ESE PO 2021 - Datenbanken und Informationssysteme / Data Bases and Information Systems - 6.0 ECTS		
11LE13MO-2040 ESE PO 2021 - Foundations of Artificial Intelligence - 6.0 ECTS		
11LE13MO-2050 ESE PO 2021 - Image Processing and Computer Graphics - 6.0 ECTS		
11LE13MO-910 ESE PO 2021 - Introduction to Embedded Systems - 6.0 ECTS		
11LE13MO-1153 ESE PO 2021 - Machine Learning - 6.0 ECTS		
11LE13MO-2030 ESE PO 2021 - Software Engineering - 6.0 ECTS		
11LE50KT-MSc-787-2021-ElectiveCS - Elective Courses in Computer Science		

HSinOne Demo: Registration procedure for seminar or project



- Check out how to book seminars and how to register for projects!

<https://www.tf.uni-freiburg.de/en/studies-and-teaching/a-to-z-study-faq/booking-of-pro-seminars-in-computer-science>

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

11LE50MO-Seminar 1 - Seminar 1 - 3.0 ECTS	
11LE13VG-Seminar - VG Seminar 1 M (1 of 13)	
11LE13SL-Seminar 1 - Seminar 1 Studienleistung	🕒
11LE13PL-Seminar 1 - Seminar 1 Prüfung - 3.0 ECTS	🕒
11LE13MO-Seminar 2 - Seminar 2 - 3.0 ECTS	
11LE50MO-8140 ESE PO 2021 Studienprojekt MSc ESE - 18.0 ECTS	
11LE50VG-8140 ESE PO 2021 - Studienprojekt MSc ESE	
11LE50SL-8140 ESE PO 2021 - Studienprojekt MSc ESE - Studienleistung	🕒
11LE50PL-8140 ESE PO 2021 - Studienprojekt MSc ESE - Prüfung - 18.0 ECTS	🕒
11LE50KT-MSc-787-2021-MSE - Microsystems Engineering	
11LE50KT-MSc-787-2021-AdvancedMSE - Advanced Microsystems Engineering	
11LE50KT-MSc-787-2021-AdvancedMSE - Advanced Microsystems Engineering	

HiSinOne Demo: Advanced MSE and Concentrations



- 11LE50KT-MSc-787-2021-MSE - Microsystems Engineering
 - 11LE50KT-MSc-787-2021-AdvancedMSE - Advanced Microsystems Engineering
 - 11LE50MO-7700/986 ESE PO 2021 - Assembly and packaging technology - 6.0 ECTS
 - 11LE50MO-7050/986 ESE PO 2021 - Micro-electronics - 6.0 ECTS
 - 11LE50MO-7100/986 ESE PO 2021 - Micromechanics - 6.0 ECTS
 - 11LE50MO-7600/986 ESE PO 2021 - Micro-optics - 6.0 ECTS
 - 11LE50MO-2080 ESE PO 2021 - Modelling and System Identification - 6.0 ECTS
 - 11LE50MO-7250 ESE PO 2021 - MST Technologies and Processes - 6.0 ECTS
 - 11LE50MO-6100 ESE PO 2021 - Probability and statistics - 6.0 ECTS
 - 11LE50MO-7500/986 ESE PO 2021 - Sensors - 6.0 ECTS
 - 11LE50MO-7400 ESE PO 2021 - Signal Processing - 6.0 ECTS
 - 11LE50KT-MSc-787-2021-ConcentrationsMSE - Microsystems Engineering Concentrations Area
 - 11LE50KT-MSc-787-2021-MSE-CaS - Circuits and Systems
 - 11LE50KT-MSc-787-2021-MSE-MaF - Materials and Fabrication
 - 11LE50KT-MSc-787-2021-MSE-BE - Biomedical Engineering
 - 11LE50KT-MSc-787-2021-MSE-P - Photonics

HISinOne Demo: Customized Course Selection



- Optional; only courses completing with pass/fail assessments

The screenshot shows a list of courses in HISinOne. The top course, '11LE50KT-MSc-787-2021-CCS - Customized Course Selection - 18.0 ECTS', is highlighted with a red circle and a checkmark. A callout bubble points to it with the text: 'Ignore this data! It's for a technical implementation in HISinOne, NOT an information that you have to take these ECTS!'. Below it are several other courses, each with a green star icon and a right-pointing arrow. At the bottom, there is a section for 'Courses offered in other departments of the University' with a dropdown arrow and a right-pointing arrow.

Course ID	Course Name	ECTS
11LE50KT-MSc-787-2021-CCS	Customized Course Selection	18.0
11LE50MO-7003	ESE PO 2021 - MST Design Lab I for Microsystems Engineering	6.0
11LE50MO-5803	ESE PO 2021 - Project management for engineers	3.0
11LE50MO-5801	ESE PO 2021 - Scientific writing and presentation	3.0
11LE13MO-7110-1	ESE PO 2021 - Praktikum Informatik 1	6.0
11LE13MO-7110-2	ESE PO 2021 - Praktikum Informatik 2	6.0
11LE13MO-7110-3	ESE PO 2021 - Praktikum Informatik 3	6.0
11LE13MO-Sprachkurs	ESE PO 2021 - Language Course SLI Recognition	
11LE50KT-MSc-787-2021-CCS-FWB	Courses offered in other departments of the University	
11LE50KT-MSc-787-2021-CCS-FWB SSE	Sustainable Systems Engineering	

! gÜK - globales Überlaufkonto

HISinOne Demo: Multi-connected Elements



- Green and red arrows? Don't panic!

The screenshot displays a list of course elements in a tree view. The first element is '11LE13MO-7110-1 ESE PO 2021 - Praktikum Informatik 1 - 6.0 ECTS', which is expanded to show three sub-elements: '11LE13VG-7110 Praktikum - Praktikum Informatik (1 of 4)', '11LE13SL-7110-1 - Praktikum Informatik 1 - Studienleistung - 6.0 ECTS', and another '11LE13SL-7110-1' entry. The second element is '11LE13MO-7110-2 ESE PO 2021 - Praktikum Informatik 2 - 6.0 ECTS', which is expanded to show a heading 'Multi-connected Elements (Please click on the respective heading to display the respective element):' followed by '11LE13VG-7110 Praktikum - Praktikum Informatik - compulsory' (highlighted with a red circle and containing a red double-headed arrow) and '11LE13SL-7110-2 ESE - Praktikum Informatik 2 Studienleistung'. The third element is '11LE13MO-7110-3 ESE PO 2021 - Praktikum Informatik 3 - 6.0 ECTS', which is expanded to show a heading 'Multi-connected Elements (Please click on the respective heading to display the respective element):' followed by '11LE13VG-7110 Praktikum - Praktikum Informatik - compulsory' (containing a red double-headed arrow) and '11LE13SL-7110-3 ESE PO 2021 - Praktikum Informatik 3 Studienleistung'.

Rules regarding examinations

More details will be offered by the examination office team in a presentation in a few weeks.

You'll receive an invitation via e-mail in time...

Registration for exams / graded assessments (PL)



- It's a second, independent step from booking the course. It's **not** done automatically!
- The procedure is *similar* to booking the courses. For a how-to, see <https://www.tf.uni-freiburg.de/en/studies-and-teaching/a-to-z-study-faq/examinations>
- **Deadlines** for the registration (and de-registration) for exams are also mentioned on this website.
- Without registering for an exam you are not allowed to take it, so **do not forget!**
- To make sure you are correctly registered, we recommend saving/printing the pdf of the in HISinOne → My studies → My course enrollments and exam registrations

How to proceed if you failed an exam



- Number of attempts are limited:
 - 2 attempts for every exam / graded assessment (if needed)
 - **2 oral or written exams** can be attempted **3 times**
- You are registered automatically for the repetition(s) and **cannot sign off** !
- Repetition exam will take place in the **next semester**.
- You can **replace 1 course** (in CS or MSE) you failed the exam / graded assessment with another one (but it has to be done after the **first** failed attempt)

Improvement of a grade



- Repeating an exam that you have passed, to improve your mark, is possible in **one** module you did in your first year of studies here
- This rule applies only to written or oral exam (not other kinds like homework or presentations)
- You have to take the „repetition“ exam **directly in the following semester**
- The examination with the better grade will be considered official

Missing an exam:

Unexcused or authorized withdrawals



- If you do not attend an exam that you registered for, it counts as **failed**, unless you have a **valid excuse**.
- Valid excuses can be
 - Due to illness
→ Doctor's note required, see <https://www.tf.uni-freiburg.de/en/studies-and-teaching/a-to-z-study-faq>
 - Due to emergencies in family etc.
(please contact examination office immediately)

Intellectual honesty / plagiarism



- Plagiarism is:
 - Using someone else's texts, pictures, reports, data, solutions, whatever....
 - ... without citing the **source**
- Sources include:
 - Books, the internet, colleagues, ...
- To make it clear:
Plagiarism is illegal!
It is cheating!
- The simple „if...then“ loop:
 - If you cheat (once)
→ then you fail the course
 - If you cheat repeatedly (twice)
→ then you are thrown out of the program and your academic career is over
- Intellectual honesty is important! Don't pass off someone else's work as your own!



Finding information and help

Students are responsible to stay informed



- You are independent persons, expected to (mostly) self-organize and self-motivate.
There is no service establishment catering to all your needs.
- We provide the necessary information through different sources:
 - Websites
 - Introductory events
 - Official documents (like exam regulations)
 - Information e-mails
(Make sure to have access to your faculty user account and forward or use that e-mail address!)
- Reading is essential! Please read! The whole text, all the lines in an email, the complete instructions in exercise or exam sheet...
- *„I did not know!“ is not an acceptable excuse!*

If you don't find the information, maybe try using a search engine...

Check out the information on our websites



- For new students:
<https://www.tf.uni-freiburg.de/en/studies-and-teaching/a-to-z-study-faq/freshers-info>
- Dates and deadlines:
<https://www.tf.uni-freiburg.de/en/studies-and-teaching/calendar-dates>
- A to Z – Study FAQs (especially useful for information about examination related things):
<https://www.tf.uni-freiburg.de/en/studies-and-teaching/a-to-z-study-faq>
- Website for your study program
<https://www.tf.uni-freiburg.de/en/study-programs/embedded-systems-engineering/m-sc-embedded-systems-engineering>
- Contacts for advisory services etc.:
<https://www.tf.uni-freiburg.de/en/study-programs/counseling>

When writing an e-mail to an advisor or the examination office...



- Please use a sensible subject
- Assume we do not know you, and we are not clairvoyant. So, please sign the email with your full name; your matriculation number can also be helpful, and it would be great if you mention your study program...
- Use full names of professors, supervisors or lecturers (we are not on first name base with everyone at the faculty)
- For a question about a new topic: Write a new mail and address it (correctly) yourself. Don't "answer" to older information mails from us.
- If it is urgent, indicate this in the subject line! Our responses to mails not classified as urgent can take quite a while and we try to prioritize.