1. Organization
2. Administration
3. Important info and rules regarding exams
4. Where to find information and help
About me

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- Course coordinator for Microsystems Engineering
- Phone: +49 761 203 97940
- studiengangkoordination.mst@imtek.uni-freiburg.de

Consulting hours via phone: Tuesday & Thursday 9:30-11:30, on site: best via prior appointment

More info on consulting hours and changes:
https://www.tf.uni-freiburg.de/de/studienangebot/studienberatung
Academic advisors

Dr. Jochen Kieninger
203-7265

Dr. Oswald Prucker
203-7164

E-Mail: studienberatung@imtek.de
Part I

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

• A new version of the exam regulations with a new syllabus has been introduced in the last winter semester
  → Not every lecturer may be fully aware of the changes

• Differences to previous regulations; when talking to other MSE Master students without knowing which regulations they follow!
Some important terms I

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

Courses in the MSE program:
- Lectures – Vorlesung (V)
- Exercises – Übung (Ü)
- Lab courses – Praktikum/ Praktische Übung (Pr)
- Seminars – Seminar (S)
Some important terms II

Graded assessments or pass/fail:
Coursework or pass/fail assessments (“Studienleistungen”, SL)
- Part of a 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 \(\rightarrow\) “time penalty”)

Graded assessments /Exams (“Prüfungsleistungen”, PL)
- Always graded
- Always counts towards the final grade
- Strict rules/regulations and very limited number of attempts
Structure of the curriculum

Microsystems Engineering (M.Sc.)

First year

Compulsory courses (30 ECTS):
- Microelectronics
- Micro-mechanics
- Microsystems design laboratory
- Microsystems Technologies and Processes
- Signal processing

Second year

Concentration Areas (30 ECTS):
- Biomedical engineering
- Circuits and systems
- Materials and Fabrication
- Photonics
- Customized Course Selection (i.e., language courses)

Advanced Microsystems: (30 ECTS, 5 out of 8 modules)
- Assembly and Packaging Technology
- Micro-optics
- Modelling and System Identification
- Probability and Statistics
- Sensors
- Biomedical Microsystems
- Micro-actuators
- Micro-fluidics

Master thesis
30 ECTS
At a glance…

• **5 Compulsory courses** = 30 ECTS

• **Advanced Microsystems**: 5 out of 8 modules = 30 ECTS

• **Concentration Areas** = 30 ECTS
  - **Customized Course Selection** = 9 ECTS

• **Master’s thesis** = 30 ECTS

• 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
# Mandatory modules in MSc MSE

<table>
<thead>
<tr>
<th>Module</th>
<th>Type</th>
<th>Exam</th>
<th>ECTS</th>
<th>Sem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro-electronics</td>
<td>Le+E</td>
<td>Written exam</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Micro-mechanics</td>
<td>Le+E</td>
<td>Written exam</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>MST Design Laboratory I for Microsystems Engineering</td>
<td>La</td>
<td>Pass/Fail assessment (Studienleistung)</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>MST Technologies and Processes</td>
<td>Le+E</td>
<td>Pass/Fail assessment (Studienleistung) Written exam</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Signal Processing</td>
<td>Le+La</td>
<td>Written exam</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Master’s Module (6 months)</td>
<td></td>
<td>Thesis + Presentation</td>
<td>27</td>
<td>4</td>
</tr>
</tbody>
</table>

*Le = Lecture, E = Exercise, La = Lab course*
## Compulsory Electives: Advanced Microsystems

Choose 5 of 8

<table>
<thead>
<tr>
<th>Module</th>
<th>Type</th>
<th>Exam</th>
<th>ECTS</th>
<th>Sem.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assembly and Packaging Technology</td>
<td>Le+E</td>
<td>Written exam</td>
<td>6</td>
<td>1, 2 or 3</td>
</tr>
<tr>
<td>Micro-optics</td>
<td>Le+E</td>
<td>Written exam</td>
<td>6</td>
<td>1 or 3</td>
</tr>
<tr>
<td>Modelling and System Identification</td>
<td>Le+E</td>
<td>Written exam</td>
<td>6</td>
<td>1 or 3</td>
</tr>
<tr>
<td>Probability and Statistics</td>
<td>Le+E</td>
<td>Written exam</td>
<td>6</td>
<td>1 or 3</td>
</tr>
<tr>
<td>Sensors</td>
<td>Le+E</td>
<td>Written exam</td>
<td>6</td>
<td>1 or 3</td>
</tr>
<tr>
<td>Biomedical Microsystems</td>
<td>Le+E</td>
<td>Written exam</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Micro-actuators</td>
<td>Le+E</td>
<td>Written Exam</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Micro-fluidics</td>
<td>Le+E</td>
<td>Written Exam</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total to be selected** 30

Le = Lecture, E = Exercise, La = Lab course
Concentration Areas in MSE

• You have to choose **one area**

• The 4 Concentration Areas are:

  • Circuits and Systems (includes the old areas Circuits & Systems and Sensors & Actuators)
  • Biomedical Engineering (includes the old areas Biomedical Eng. and Lab-on-a-Chip)
  • Materials and Fabrication (includes the old areas Design & Simulation and Materials)
  • Photonics
Instead of completing all 30 ECTS from your chosen concentration area, you can earn 9 ECTS in the Customized Course Selection

Here, you can choose from

- Pass-or-fail courses (*Studienleistungen*), for example 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 study planner – application required)*

*Be aware that the rules regarding the Customized Course Selection are different in the ESE study program, when talking to other students or lecturers!*
### Concentration Areas + Customized Course Selection

<table>
<thead>
<tr>
<th>Concentration areas (21-30 ECTS)</th>
<th>ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circuits and Systems</td>
<td></td>
</tr>
<tr>
<td>Materials and Fabrication</td>
<td></td>
</tr>
<tr>
<td>Biomedical Engineering</td>
<td></td>
</tr>
<tr>
<td>Photonics</td>
<td></td>
</tr>
</tbody>
</table>

**Total**: 21-30

<table>
<thead>
<tr>
<th>Customized Course Selection</th>
<th>ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Courses from other faculties at the University of Freiburg, also courses on German language, scientific writing, project management</td>
<td>Students can chose either 30 concentration or 21 concentration+9 CCS</td>
</tr>
<tr>
<td>Courses from the MSc MSE program</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
</tr>
</tbody>
</table>
Optional specialization

You can choose to do a specialization in your study program (which will be shown on the final documents). There are 4 specializations available:

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

The requirements are:

- You have to take courses with at least 30 ECTS from the according specialization
- You have to do a Master Thesis with a related topic
Exam regulations 2021

• Master thesis (27 ECTS) graded
• Colloquium (= Presentation/ Defense; 3 ECTS) graded
• Admission to thesis: you need at least 72 ECTS credits
• Duration: 6 months
Part 2

Administrative „stuff“
Advice and recommendations I

• Most courses are offered every other semester (i.e. once a year); some might be held more irregularly; this should be mentioned in the module handbook (please see HISinOne or PDF)

• Overlapping of courses: with the huge amount of courses offered, this unfortunately happens

• Be aware that you might need to adapt your original study plan
Advice and recommendations II

• Usually no dependencies regarding order of courses

• However, check with lecturers for appropriate combinations or recommended order of courses

• Most prerequisites stated in the course catalog are recommendations, they are not mandatory, but some are → please read the description!
Next steps…

• Study the course catalog / planner of studies (What courses are offered right now?)

• 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)
Registering for/ Booking of courses

• Have a look at your **planner of studies** [https://campus.uni-freiburg.de](https://campus.uni-freiburg.de)

• If you have questions or made a mistake while booking: **Contact** Ms. Moses in the Dean’s office: [moses@tf.uni-freiburg.de](mailto: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!

• Please note: **Registration for an exam in HISinOne can be confusing if you did not book the course beforehand!**
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 e-mail in due course.
• This is another, 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 please **do not forget!**
• To make sure you are correctly registered, we recommend saving/printing the pdf of the registration confirmation in HISinOne → My studies → My course enrollments and exam registrations.
Failed an exam? How to go ahead…

• 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 substitute **1 course** (from Advanced MSE or the concentration) you failed the exam/ graded assessment with another one (but it has to be done after the **first** failed attempt)
Grade improvement

• 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)
Finding information and help
Students are responsible to stay informed

We provide the necessary information through different sources:
- Websites
- Introductory events
- Official documents (like exam regulations)
- Information emails (Make sure to have access to your faculty user account and forward or use that e-mail address!)

Students are expected to look for the information proactively
Information resources

• Faculty of Engineering: https://www.tf.uni-freiburg.de/en/studies-and-teaching

• Calendar, dates and deadlines: https://www.tf.uni-freiburg.de/en/studies-and-teaching/calendar-dates

• Program-Website: https://www.tf.uni-freiburg.de/en/study-programs/microsystem-engineering/m-sc-microsystems-engineering-en?set_language=en

• Information for new students https://www.tf.uni-freiburg.de/en/studies-and-teaching/a-to-z-study-faq/information-for-new-students-summer-semester

• A to Z –Study FAQ https://www.tf.uni-freiburg.de/en/studies-and-teaching/a-to-z-study-faq
If you have any questions or problems: please act or reach out as soon as possible, waiting will not make the problem go away.

- **Contacts & information sources:**
  - Official information sources by university, faculty and study program
  - Study advisors (Contact information for advisory services at TF: [https://www.tf.uni-freiburg.de/en/study-programs/counseling](https://www.tf.uni-freiburg.de/en/study-programs/counseling))
  - Mentors
  - Lecturers / assistants (face-to-face or via e-mail)
  - Fachschaft TF (student committee of this faculty)
  - Information centers like the Student Service Center, IAS, Office of Student Services etc.
  - fellow students
When writing mails to an advisor, coordinator or the examination office…

• Use a(n) (appropriate) subject
• Use a greeting/salutation
• Sign the email with your full name; your matriculation number is also helpful
• Use full names of professors, supervisors or lecturers (not only the first name)
• For a new topic: Write a new mail and address it (correctly) yourself
• If it is urgent, please indicate this in the subject line-our responses to mails not classified as urgent can take quite a while and we try to prioritize
Any questions? Please do not hesitate to contact me via studiengangkoordination.mst@imtek.uni-freiburg.de