

# WELCOME TO TU DARMSTADT

M.Sc. Materials Science  
Introductory Lecture SoSe24

**Dr. Hannah Sonderfeld**

Coordinator in the Office for Student Affairs

This talk will be uploaded to the  
Materials Science webpages at  
**Master/Information for new Master  
students**

# CATEGORIES OF STUDENTS

## Five categories of students in the audience:

1. International Incomings in Master's programme
2. National Incomings in Master's programme
3. Exchange students
4. Bachelor's students in Materials Science (TU Da) who did not graduate yet
5. Bachelor's graduates in Materials Science (TU Da), now in Master's programme

Part I & Part II

Part II

# AGENDA

## Part I

*For students new to TU Darmstadt*

- 1** Orientation on campus
- 2** TUCaN, Moodle
- 3** Further support (Mentoring, IT)
- 4** Presentation by Student Council

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BREAK  
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## Part II

*Framework and formalities of the M.Sc. Materials Science*

- 5** Suggested Schedule & Elective Courses
- 6** Academic Achievements (exam types, exam registration, GPA, special course settings)
- 7** Support (mentoring programme, departmental contacts)
- 8** Labs and Internships (RL I & II, ARL, Industrial Internship)
- 9** Exchange Programmes







# MAIN MATERIALS SCIENCE BUILDING

- Office for Student Affairs
- Dean's office
- Student Council (Fachschaft)
- Seminar rooms
- Labs and offices

L2|01

Peter-Grünberg-Str. 2 (*formerly Alarich-Weiß-Str.*)





# OFFICE BUILDING

L6|01

Otto-Berndt-Str. 3

Materials Science Offices on 2nd and 4th Floor,  
some on Ground Floor and 3rd Floor



# LAB AND OFFICE BUILDING: M<sup>3</sup>

L2|07

Peter-Grünberg-Str. 16

*(formerly Alarich-Weiß-Str.)*

Materials science labs and offices on 1st and 2nd Floor,  
some on Ground Floor

# TUCAN

**TUCaN** = central system for organization of studies and teaching

- Registration for **modules, courses** (within modules) and **exams**
- Check your **grades**

Important:

- activate your TU-ID (see letter with student ID card)
- [Configure your TU email](#)
- Recommended: activate [forwarding of system messages](#) to TU mail account

Further information on TUCaN:

1. [https://www.tu-darmstadt.de/studieren/studierende\\_tu/studienorganisation\\_und\\_tucan/index.en.jsp](https://www.tu-darmstadt.de/studieren/studierende_tu/studienorganisation_und_tucan/index.en.jsp)
2. Flyer at the Office for Student Affairs
3. Fachschaft (student council)



In case of problems:  
**Don't Panic!**

Ask fellow students, then the  
Office for Student Affairs  
(Ms. Gottschling, PD Dr.  
Kastening).



# COURSE STRUCTURE

A **module** is a self-contained learning block with thematically determined learning achievements, predetermined workload (expressed in credits) and clear assessment criteria. A module may include **one or more courses** and **one or more exams**.

You must be **registered for a module** in order to **register for courses** that are part of that module.

When you register for a module, you are **not** automatically registered for the associated exam (exceptions: Lab courses, seminars, discussion with mentor).

More Information on [modules and courses](#) and [module registration in TUCan](#)

- Module A
  - Course 1 (Lecture)
  - Course 2 (Exercise)
- Module B
  - Course 3 (Lab)
- ...

# MOODLE

## E-Learning platform

- Platform for online course material and activities
- Notification function for news and changes regarding your courses

## Access

- Automatic registration for a moodle course with TUCaN course registration
  - Log-in with TU-ID
  - Courses can be found in your Dashboard
- 
- Further information and log-in: <https://moodle.tu-darmstadt.de/>



In case of problems:

Ask fellow students or lecturer

For technical problems:  
[moodle@tu-darmstadt.de](mailto:moodle@tu-darmstadt.de)  
[+49-6151-16-71130](tel:+49-6151-16-71130)

# MOODLE

No TU-ID yet → Guest Access

## Access

- Automatic registration for a moodle course with TUCaN course registration
- Log-in with TU ID
- Courses can be found in your Dashboard

## Instructions for access as guest

- Visit <https://moodle.tu-darmstadt.de/>
- Change language to English at right top if desired
- At right top corner, open block drawer by clicking the „<” sign
- Click “Anmelden als Gast”
- Click “Access as a guest” in the resulting pop-up window
- Click “Course Catalogue” at top left
- Click the desired course
- Enter the Password FB11SoSe24 and then click “Submit”(attention: with copy and paste you might copy a trailing space that you need to delete)



Home Course Catalogue Help

Courses / SoSe 2024 / FB11 Material- und Geowissenschaften

### FB11 Material- und Geowissenschaften

SoSe 2024 / FB11 Material- und Geowissenschaften Search courses

- Endogene Geologie - 11-02-1308-vl
- Exercises Theoretical Methods in Materials Science - 11-01-9314-ue
- Forschungsseminar SoSe 2024 - 11-02-9572-se
- Fortgeschrittenenpraktikum Materialwissenschaft I - 11-01-1028-pr
- Grundpraktikum Materialwissenschaft II - 11-01-1016-pr
- Konstruktionswerkstoffe - 11-01-1035-vl
- Petrologie II: Metamorphe Gesteine - 11-02-1320-vu
- Project Seminar - 11-02-3402-se
- Research Lab II - 11-01-4012-pr



# MASTER'S ORIENTATION AND PEER MENTORING

- Master's Orientation Events
  - Organised by the "Fachschaft" = student council
  - Starts with Campus Tour right after this orientation event
- ISS programme of TU Darmstadt:  
[https://www.tu-darmstadt.de/studieren/studierende\\_tu/internationale\\_studierende\\_1/index.en.jsp](https://www.tu-darmstadt.de/studieren/studierende_tu/internationale_studierende_1/index.en.jsp)
- Su<sup>2</sup>Ma – Mentoring workshops for and from Materials Science students:  
[https://www.mawi.tu-darmstadt.de/studium/im\\_studium/master\\_mawi/su\\_ma\\_mentoring\\_programme/index.en.jsp](https://www.mawi.tu-darmstadt.de/studium/im_studium/master_mawi/su_ma_mentoring_programme/index.en.jsp)

**First Workshop about study  
organization**  
on Monday, 15th April, 9:50 am (CEST)  
on zoom (see email from mentors)

# SUPPORT & ADVICE

## TU Student Service

- for issues such as application, admission & enrolment, change of degree programme, re-/de-registration, semester fees, health insurance, students' certificate, certificates for official institutions, change of address
  - [International Student Services](#)
  - [Student Service for national students](#)

## Studierendenwerk

- Student Life (e.g. financing, accommodation, legal advice, social counselling...)

## Big Sister Mentoring

- programme designed to support international female students and female students with migration history to connect and network with each other
- Application online

# FINANCIAL SUPPORT

- [Deutschlandstipendium](#) („Germany Scholarship“)
- Financial funding for international students in their final study phase
- Student Assistant („HiWi“) Jobs
  - [Stellenwerk](#)
  - [In the department](#) (e.g. with research groups, as student tutor for lab courses, as mentor, in public relations)

Further information:  
[Scholarships at TU  
Darmstadt](#)



# SOFTWARE

- Link to software from HRZ: [https://www.hrz.tu-darmstadt.de/services/it\\_services/campus\\_software/index.en.jsp](https://www.hrz.tu-darmstadt.de/services/it_services/campus_software/index.en.jsp)
  - **Sophos antivirus** software for free with TU-ID via HRZ
  - **Microsoft Office 365** for free with TU-ID via HRZ
- For **QtiPlot** software see departmental webpage:  
Office for Student Affairs/Master → Documents and Forms → Software for Students
- In case of problems: Andreas Hönl, Stephan Diefenbach
  - Phone 16-22240
  - Room 204
  - Mr. Andreas Hönl ([andreas.hoenl@tu-darmstadt.de](mailto:andreas.hoenl@tu-darmstadt.de))
  - Mr. Stephan Diefenbach ([stephan.diefenbach@tu-darmstadt.de](mailto:stephan.diefenbach@tu-darmstadt.de))




**ORIENTATION DAY – MASTER MATERIALS SCIENCE**

# **PRESENTATION BY THE STUDENT COUNCIL**



# END OF PART I



Please stay on for  
Part II after the  
break

## PART II

Framework and formalities  
of the  
M.Sc. Materials Science



# MASTER MATERIALS SCIENCE AT TU DARMSTADT

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# CATEGORIES OF STUDENTS

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1. International Incomings in Master's programme
2. National Incomings in Master's programme
3. Exchange students (**not** in Master's programme; e.g. Erasmus)
4. Bachelor's students in Materials Science (TU Da) who did not graduate yet
5. Bachelor's graduates in Materials Science (TU Da), now in Master's programme

Part I & Part II

Part II

# AGENDA

## Part I

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## Part II

*Framework and formalities of the M.Sc. Materials Science*

- 5** Suggested Schedule & Elective Courses
- 6** Academic Achievements (exam types, exam registration, GPA, special course settings)
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- 9** Exchange Programmes



# SUGGESTED SCHEDULE

1. Semester	CP SWS	2. Semester	CP SWS	3. Semester (optional stay abroad)	CP SWS	4. Semester	CP SWS
(1) Research Lab I	<b>SL 4</b> pass/fail Lab4	(2) Research Lab II	<b>SL 4</b> pass/fail Lab4	(3) Advanced Research Lab with Seminar	<b>SL 15</b> pass/fail Lab24+P2	(9) Master Thesis and Defense	<b>FP 30</b> graded
(4) Quantum Mechanics for Mat. Sci. or Micromechanics and Hom. Techn.	<b>FP 6</b> graded L3+E1	(7) Theoretical Methods in Materials Science	<b>FP 6</b> graded L3+E1				
(5) Functional Materials	<b>FP 6</b> graded L4	(8) Advanced Characterization Methods of Materials Science	<b>FP 6</b> graded L3+E1				
(6) Surfaces and Interfaces	<b>FP 5</b> graded L3	Elective Courses Materials Science		<b>FP 29</b> graded			
Elective Courses (not Materials Science)							
Orientation Day	<b>0</b>			Career Coaching	<b>0</b>		
Mentoring							
Sum CP	<b>30</b>	Sum CP	<b>30</b>	Sum CP	<b>30</b>	Sum CP	<b>30</b>
Elective Courses Materials Science		Choice of Quantum Mechanics or Micromechanics	6			FP = "Fachprüfung" = graded exam (max. 3 attempts, except thesis: max. 2 attempts)	
		Mandatory Courses Materials Science	23			SL = "Studienleistung" = ungraded study work	
		Materials Science Labs	23			SLb = "Studienleistung benoten" = graded study work	
Elective Courses (not Materials Science)		Master Thesis	30			L = lecture, E = exercises, P = presentation, Lab = laboratory course, CP = credit points	
		<b>Sum</b>	<b>120</b>				

Start in summer term: Schedule out of step!

→ More info: see M.Sc. Materials Science web page  
[https://www.mawi.tu-darmstadt.de/studium/im\\_studium/master\\_mawi/index.en.jsp](https://www.mawi.tu-darmstadt.de/studium/im_studium/master_mawi/index.en.jsp)

# SUGGESTED SCHEDULE



1. Semester	CP SWS	2. Semester	CP SWS	3. Semester (optional stay abroad)	CP SWS	4. Semester	CP SWS
(1) Research Lab I	SL 4 pass/fail Lab4	(2) Research Lab II	SL 4 pass/fail Lab4	(3) Advanced Research Lab with Seminar	SL 15 pass/fail Lab24+P2	(9) Master Thesis and Defense	FP 30 graded
(4) Quantum Mechanics for Mat. Sci. or Micromechanics and Hom. Techn.	FP 6 graded L3+E1	(7) Theoretical Methods in Materials Science	FP 6 graded L3+E1				
(5) Functional Materials	FP 6 graded L4	(8) Advanced Characterization Methods of Materials Science	FP 6 graded L3+E1				
(6) Surfaces and Interfaces	FP 5 graded L3						
Elective Courses Materials Science				FP 29 graded			
Elective Courses (not Materials Science)				FP/SL 9 graded or pass/fail			
Orientation Day	0			Career Coaching	0		
Mentoring							
Sum CP	30	Sum CP	30	Sum CP	30	Sum CP	30
Elective Courses Materials Science		Choice of Quantum Mechanics or Micromechanics	6	FP = "Fachprüfung" = graded exam (max. 3 attempts, except thesis: max. 2 attempts)			
		Mandatory Courses Materials Science	23	SL = "Studienleistung" = ungraded study work			
		Materials Science Labs	23	SLb = "Studienleistung benoten" = graded study work			
Elective Courses (not Materials Science)		Master Thesis	30	L = lecture, E = exercises, P = presentation,			
		Sum	120	Lab = laboratory course, CP = credit points			

Start in summer term: Schedule out of step!

→ More info: see M.Sc. Materials Science web page  
[https://www.mawi.tu-darmstadt.de/studium/im\\_studium/master\\_mawi/index.en.jsp](https://www.mawi.tu-darmstadt.de/studium/im_studium/master_mawi/index.en.jsp)

# SUGGESTED SCHEDULE

Start in summer term: Schedule out of step!



1. Semester	CP SWS	2. Semester	CP SWS
(1) Research Lab I	SL 4 pass/fail Lab4	(2) Research Lab II	SL 4 pass/fail Lab4
(4) Quantum Mechanics for Mat. Sci. or Micromechanics and Hom. Techn.	FP 6 graded L3+E1	(7) Theoretical Methods in Materials Science	FP 6 graded L3+E1
(5) Functional Materials	FP 6 graded L4	(8) Advanced Characterization Methods of Materials Science	FP 6 graded L3+E1
(6) Surfaces and Interfaces	FP 5 graded L3		
Elective Courses Materials Science			
Elective Courses (not Materials Science)			
Orientation Day	0		
Mentoring			
Sum CP	30	Sum CP	30
Elective Courses Materials Science	29	Choice of Quantum Mechanics or Micromechanics	6
		Mandatory Courses Materials Science	23
		Materials Science Labs	23
Elective Courses (not Materials Science)	9	Master Thesis	30
		<b>Sum</b>	<b>120</b>

## QM / MM (6 CP = 6 ECTS)

Choice:

- Quantum Mechanics for Materials Science
- or
- Micromechanics for Materials Science

The respective other module may be taken as an „Elective Course Materials Science,“ if desired.

# ELECTIVE COURSES MATERIALS SCIENCE [1/3]

Start in summer term: Schedule out of step!

1. Semester	CP SWS	2. Semester	CP SWS	3. Semester (optional stay abroad)	CP SWS	4. Semester	CP SWS
(1) Research Lab I	SL 4 pass/fail Lab4	(2) Research Lab II	SL 4 pass/fail Lab4	(3) Advanced Research Lab with Seminar	SL 15 pass/fail Lab24+P2	(9) Master Thesis and Defense	FP 30 graded
(4) Quantum Mechanics for Mat. Sci. or Micromechanics	FP 6 graded L3+E1	(7) Theoretical Methods in Materials Science	FP 6 graded L3+E1				
(5) Functional Materials	FP 6 graded L4	(8) Advanced Characterization Methods of Materials Science	FP 6 graded L3+E1				
(6) Surfaces and Interfaces	FP 5 graded L3	Elective Courses Materials Science					
Elective Courses (not Materials Science)				FP/SL 9 graded or pass/fail			
Orientation Day	0			Career Coaching	0		
Mentoring							
Sum CP	30	Sum CP	30	Sum CP	30	Sum CP	30
Elective Courses Materials Science	29	Choice of Quantum Mechanics or Micromechanics	6				
		Mandatory Courses Materials Science	23				
		Materials Science Labs	23				
Elective Courses (not Materials Science)	9	Master Thesis	30				
		Sum	120				

Choose Materials Science related courses (from the whole TU Course Catalogue) with an extent of **29 CP** in total.

→ More info: see M.Sc. Materials Science web page  
[https://www.mawi.tu-darmstadt.de/studium/im\\_studium/master\\_mawi/index.en.jsp](https://www.mawi.tu-darmstadt.de/studium/im_studium/master_mawi/index.en.jsp)

**Especially note the [Info Sheet on the rules for the Elective Courses](#)**

# ELECTIVE COURSES

# MATERIALS SCIENCE [2/3]

## Personal Schedule:

- This domain concerns your individual **area of specialization**
- Prepare your personal schedule, **discuss it with your mentor**, best right away (this or next week!)
- Hand in personal list of modules **with mentor's signature** to the Office for Student Affairs, rm 79 → **Scan is sufficient!**
- **Only** modules with numerical grade 1.0, 1.3, ..., 4.0; 5.0 are **acceptable!!**
- Modules with only pass/fail are **not** acceptable!!

Excel template for personal schedule available on  
Master homepage > Documents and forms

## Possibilities:

- Courses from „M.Sc. Materials Science module guide“ (check in TUCaN: the department may offer more courses than listed in the module guide)
- Materials Science related courses from outside the department (Physics, Chemistry, Mech. Eng., Electr. Eng., M.Sc. „Energy Science and Engineering“...)
- Obligatory courses from the M.Sc. Materials Science Course Catalogue (see next slide)



# ELECTIVE COURSES

# MATERIALS SCIENCE [3/3]

- Question to all freshers who did **not** study the B.Sc. Materialwissenschaft at TU Darmstadt:  
**Did you get a departmental admission letter with „obligations“?**  
Often (not always):
- „Concepts in Materials Physics“
  - „Seminar Research Topics in Materials Science“
  - „Defects in Crystalline Solids“
- Check if „Concepts...“ course makes sense for you. If not, contact Prof. Dr. O. Gutfleisch (chair of examination board)
- **NO DEPARTMENTAL ADMISSION LETTER?**  
→ Mail to [studienbuero@mawi.tu-darmstadt.de](mailto:studienbuero@mawi.tu-darmstadt.de)!

## Note:

- You have to pass these modules before you can register for your Master's thesis. We thus recommend that you take those modules within the first year.
- Only take „Concepts in Materials Physics“ and/or „Defects in Crystalline Solids“ if obligatory for you!
- „Defects in Crystalline Solids“ **may** count for the Master's degree  
→ sign up for module 11-01-1040 “Defects in Crystalline Solids” (Additional Achievements” domain in TUCaN)  
→ inform Office for Student Affairs if you want to have it count
  - Must be passed within 3 semesters after enrolment
  - Has recordings of lecture (2 SWS) on moodle and one exercise (1 SWS, gives an exam bonus) in presence in English
  - Exam in English

# ELECTIVE COURSES NOT MATERIALS SCIENCE [1/2]



1. Semester	CP SWS	2. Semester	CP SWS	3. Semester (optional stay abroad)	CP SWS	4. Semester	CP SWS
(1) Research Lab I	<b>SL 4</b> pass/fail Lab4	(2) Research Lab II	<b>SL 4</b> pass/fail Lab4	(3) Advanced Research Lab with Seminar	<b>SL 15</b> pass/fail Lab24+P2	(9) Master Thesis and Defense	<b>FP 30</b> graded
(4) Quantum Mechanics for Mat. Sci. or Micromechanics	<b>FP 6</b> graded L3+E1	(7) Theoretical Methods in Materials Science	<b>FP 6</b> graded L3+E1				
(5) Functional Materials	<b>FP 6</b> graded L4	(8) Advanced Characterization Methods of Materials Science	<b>FP 6</b> graded L3+E1				
(6) Surfaces and Interfaces	<b>FP 5</b> graded L3						
Elective Courses Materials Science			<b>FP 29</b> graded				
Elective Courses (not Materials Science)			<b>FP/SL 9</b> graded or pass/fail				
Orientation Day	<b>0</b>			Career Coaching	<b>0</b>		
Mentoring							
<b>Sum CP</b>	<b>30</b>	<b>Sum CP</b>	<b>30</b>	<b>Sum CP</b>	<b>30</b>	<b>Sum CP</b>	<b>30</b>
Elective Courses Materials Science		Choice of Quantum Mechanics or Micromechanics	6	FP = "Fachprüfung" = graded exam (max. 3 attempts, except thesis: max. 2 attempts)			
		Mandatory Courses Materials Science	23	SL = "Studienleistung" = ungraded study work			
		Materials Science Labs	23	SLb = "Studienleistung benotet" = graded study work			
Elective Courses (not Materials Science)		Master Thesis	30	L = lecture, E = exercises, P = presentation,			
		<b>Sum</b>	<b>120</b>	Lab = laboratory course, CP = credit points			

“Studium Generale”: Choose courses not related to Materials Science (from the whole TU Course Catalogue) with an extent of **9 CP** in total.

→ More info: see M.Sc. Materials Science web page  
[https://www.mawi.tu-darmstadt.de/studium/im\\_studium/master\\_mawi/index.en.jsp](https://www.mawi.tu-darmstadt.de/studium/im_studium/master_mawi/index.en.jsp)

**Especially note the [Info Sheet on the rules for the Elective Courses](#)**

# ELECTIVE COURSES NOT MATERIALS SCIENCE [2/2]

- Graded (1.0, 1.3, ..., 4.0; 5.0) or ungraded (pass/fail): if graded, grade does **not** count towards GPA
  - Choose for yourself or discuss with your mentor
  
  - May also be from natural sciences or engineering, but only if **not** Materials Science-related
  
  - English language courses **only** acceptable if they go beyond the admission level for Master's programme
  - Few courses in English language at TU Darmstadt
- **International students**: Take German language courses:

<https://www.spz.tu-darmstadt.de/index.en.jsp>

Deadline for registration is Wednesday,  
17.4., at 12:00 noon (CEST)!

## Approval:

- List of already approved courses, [see](#):
  - PDF „Approved Elective Modules for M.Sc. Materials Science“ in the [Documents&Forms section for M.Sc. students](#), and
  - PDF „Approved elective modules (German)“ in the [Documents&Forms section for B.Sc. students](#);  
acceptable categories are
    - „2. Nicht-technisch-naturwissenschaftliche Wahlpflichtfächer“ and
    - „3. Wahlweise Technisch-naturwissenschaftliche oder Nicht-technisch-naturwissenschaftliche Wahlpflichtfächer (passend für beide Kategorien)“

→ For other than already approved choices: If uncertain, write Email to [studienbuero@mawi.tu-darmstadt.de](mailto:studienbuero@mawi.tu-darmstadt.de)

# ADDITIONAL COURSES

## „Additional Courses:“ ad libitum

- CP do **not** count towards degree, grades do **not** count towards final GPA
- Additional courses will be listed on a separate transcript

# TYPES OF EXAMS: FP, SL, THESIS

(1) Research Lab I	SL 4 pass/fail Lab4
(4) Quantum Mechanics for Mat. Sci. or Micromechanics	FP 6 graded L3+E1
(5) Functional Materials	FP 6 graded L4
(6) Surfaces and Interfaces	FP 5 graded L3

## FP = „Fachprüfung“:

- Graded exam (grades 1.0, 1.3, ..., 4.0, 5.0; oral or written) with only three attempts
- After failing twice in same exam, talk to your mentor!
- If you and the teacher agree: third attempt of written exam may be taken as oral exam
- Once in your M.Sc.: after three failed written attempts: oral last-chance attempt („mündliche Ergänzungsprüfung“)

## SL, SLb = „Studienleistung“ (SL: pass/fail, SLb: graded):

- Graded or ungraded **study achievement** without limitation regarding the number of attempts
- In Materials Science: Labs, Seminars, where you are automatically registered for „exams“:

Lab: successfully carrying out all experiments

Seminar: Successful seminar talk and seminar participation

## Master's Thesis:

- Only two attempts
- Once: possibility to return subject without failed attempt: latest after 8 weeks
- Deadline after 26 weeks (ca. 1/2 year); you may apply for a justified extension of up to 13 weeks



# EXAM REGISTRATION RULES

## EXCEPTIONS ONLY IN TRULY EXCEPTIONAL CASES

- Exams with a collective date (written or oral):
  - register in TUCaN in time; for Mat. Sci. exams **at least 8 calendar days** before!
  - other rules for exams of other departments; e.g. central reg. periods June 01.-30. / Nov. 15.-Dez. 15.
- Oral exams without collective date:
  - register in TUCaN and arrange for an appointment yourself!
- Changed your mind? Deregister **at least 8 calendar days before!**
- If you are sick *and* it is too late for deregistering:
  - Get **physician's certificate** that you were „prüfungsunfähig“=„unable to participate in an exam“ or „arbeitsunfähig“=„unable to work“ and submit it to the Office for Student Affairs **within three calendar days after the exam** (if this is Sat, Sun, holiday: next working day thereafter). Scan and email to [studienbuero@mawi.tu-darmstadt.de](mailto:studienbuero@mawi.tu-darmstadt.de) works, too.
- Other important reasons *and* it is too late for deregistering:
  - Give notice to Office for Student Affairs and be prepared to provide evidence for such reasons

Problems in TUCaN?

→ Contact Office for Student Affairs **BEFORE** deadline!

# SOME HINTS FOR EXAMS

## Preparing for exams:

- Participate in exercises, if offered
- Do not learn by heart, but try to understand
- Try to understand not only *how* things work, but *why*
- Learn in groups

## Oral exam:

- Ask your professor for examples of typical questions
- Ask each other questions

## Writing the exam:

- Given time limits are strict
- Read over all questions first
- Start with the easiest questions
- Adjust the level of detail of your answers to the time given

# CALCULATION OF FINAL GPA

## Grades weighted with CPs of their modules:

- Mandatory lectures
- Quantum Mechanics/Micromechanics
- Elective Courses Materials Science

## Grade weighted with $1.5 \times$ CPs:

- Master's Thesis

## No contribution to final GPA:

- Research Labs I & II, Advanced Research Lab
- Elective Courses (not Materials Science)
- Additional Courses

# „VORGEZOGENE MASTER- LEISTUNGEN“ FROM B.SC.

(„EARLY MASTER'S ACHIEVEMENTS“)

After enrolment into the Master's programme send Email to  
[studienbuero@mawi.tu-darmstadt.de](mailto:studienbuero@mawi.tu-darmstadt.de)

and ask for „Early Master's achievements“ to be moved from  
your Bachelor's to your Master's record.

Only relevant to students with  
B.Sc. from TU Darmstadt



# FUNCTIONAL MATERIALS

Only relevant to students who graduated with an „old“ B.Sc. Materialwissenschaft from TU Darmstadt

New B.Sc. and M.Sc. study regulations were installed in WiSe 2015/16:

- „Functional Materials“ moved from B.Sc. to M.Sc. curriculum
- „Materials Engineering“ moved from M.Sc. to B.Sc. curriculum (now in German and called „Werkstoffherstellung und -verarbeitung“)



Consequences for B.Sc. graduates according to regulations from 2008:

- You passed „Funktions- und Konstruktionsmaterialien“ as part of your mandatory curriculum and are **not** allowed to take „Functional Materials“ for credit again.  
→ Choose **more elective course(s)** instead: **35 CP instead of 29 CP!**  
Encouraged option: „Werkstoffherstellung & –verarbeitung“ (5 CP)

Relevant to all Master’s students

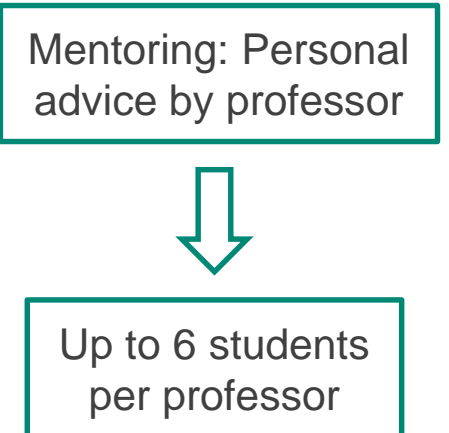
→ **The above circumstances cause a technical issue in TUCaN:**

The required CPs as listed in TUCaN sum up to 114 CP, only.

**Don’t be fooled by this! You need a minimum of 120 CP for your Master’s degree!**

# MENTORING PROGRAMME

- Choose mentor according to your research interests (but may be changed later).
- Register in TUCaN:
  - register in TUCaN for **module** „Discussion with Mentor – Master
  - register in TUCaN for **course** „ Discussion with Mentor – Master - <name of prof.>“
- **Arrange for an appointment yourself!**
- Prepare preliminary „personal schedule“ for discussion with mentor (see slide 7, Excel template available on Master’s homepage)
- The sooner the appointment the better; latest at the end of the first semester:  
→ **else no more registration in TUCaN possible!**



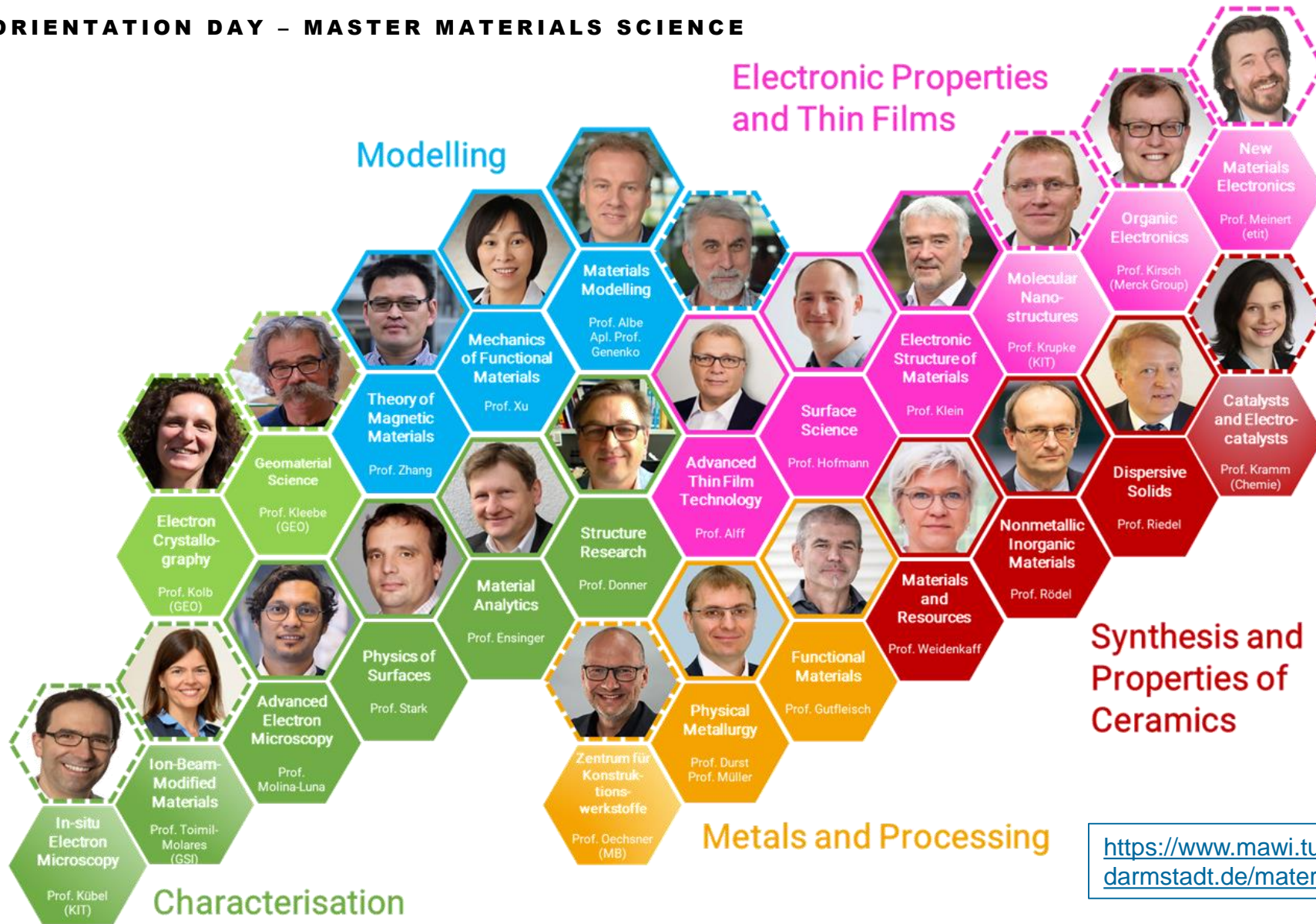
# POSSIBLE MENTORS

- Mr. Prof. K. Albe
- Mr. Prof. L. Alff
- Mr. Prof. W. Donner
- Mr. Prof. K. Durst
- Mr. Apl. Prof. Y. Genenko
- Mr. Prof. O. Gutfleisch
- Mr. Prof. J.P. Hofmann
- Mr. Prof. A. Klein
- Mr. Prof. P. Kirsch
- Mr. Prof. R. Krupke
- Mr. Prof. C. Kübel
- Mr. Ass.-Prof. L. Molina-Luna
- Mr. Prof. J. Rödel
- Mr. Prof. R. Stark
- Ms. Prof. M. E. Toimil-Molares
- Ms. Prof. A. Weidenkaff
- Ms. Prof. B. Xu
- Mr. Prof. H. Zhang

For a list of all research groups and links to their webpages see here:

[https://www.mawi.tu-darmstadt.de/materialwissenschaft/fachgebiete\\_mawi/index.en.jsp](https://www.mawi.tu-darmstadt.de/materialwissenschaft/fachgebiete_mawi/index.en.jsp)

**ORIENTATION DAY – MASTER MATERIALS SCIENCE**



[https://www.mawi.tu-darmstadt.de/materialwissenschaft/fachgebiete\\_mawi/index.en.jsp](https://www.mawi.tu-darmstadt.de/materialwissenschaft/fachgebiete_mawi/index.en.jsp)





**Prof. Dr. Oliver Gutfleisch**

Chair of examination board

Room L2|07/111, Phone 16-22140

[pk@mawi.tu-darmstadt.de](mailto:pk@mawi.tu-darmstadt.de)

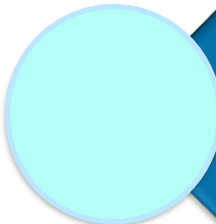
Office hours: Tuesday 11:00 a.m.-12:00 noon  
during semester times (Please email beforehand to  
[oliver.gutfleisch@tu-darmstadt.de](mailto:oliver.gutfleisch@tu-darmstadt.de))



**PD Dr. Boris Kastening**

Study Coordinator Materials Science; Managing Director Dept.11

Room L2|01/78, Phone 16-22244



**Jane Gottschling**

Office for Student Affairs (M.Sc.): exams, TUCaN

Room L2|01/78, Phone 16-22242

# ADVICE FOR STUDY-RELATED QUESTIONS

+ your mentor!

## Office for Student Affairs

Study organisation and study counselling, part-time-studies, studying with a child, recognition of credit points, registration or deregistration of exams, registration of final modules, transcript of records and certificates

Email: [studienbuero@mawi.tu-darmstadt.de](mailto:studienbuero@mawi.tu-darmstadt.de)

In person: preferably before lunchtime

# FURTHER ADVICE AT OUR DEPARTMENT



## Dr. Joachim Brötz

FAME, AMIS, AMIR double degree  
programmes  
Room L2|01/209, Phone 16-21030,  
joachim.bruetz@tu-darmstadt.de



## Dr.-Ing. Anne Kikker

Public relations & Master's students  
Room L2|01/208, Phone 16-22280



## Dr. Hannah Sonderfeld

International exchange & Master's students  
Room L2|01/209, Phone 16-22245



## Ruben Bischler

Public relations & Master's students  
Room L2|01/208, Phone 16-22019

+your mentor!

[master@mawi.tu-darmstadt.de](mailto:master@mawi.tu-darmstadt.de)

# LABS (PRAKTIKA)

- Research Lab I & II → Lab courses within the department
- Advanced Research Lab → Individual research project
- Industrial Lab → Internship / Work experience

# RESEARCH LAB II

- SL, 4 CP
- Lab course during the semester covering **6 experiments**
- Introductory meeting with Dr. Hannah Sonderfeld:

Monday, 15.4.2024  
at 15:20 – 16:50 (CEST)  
in L1|01, Lecture Hall 24K

**Participation in the introductory meeting is mandatory!**

- Please choose your group in moodle

1. Semester	CP SWS	2. Semester	CP SWS
(1) Research Lab I	<b>SL 4</b> pass/fail Lab4	(2) Research Lab II	<b>SL 4</b> pass/fail Lab4

and on zoom for those who are not yet in  
Darmstadt:

<https://tu-darmstadt.zoom-x.de/j/61203296043?pwd=N0x0dm5wYmM2dkNYNVNIMzZnamM4dz09>

Meeting-ID: 612 0329 6043

Kenncode: 764962

# ADVANCED RESEARCH LAB (ARL) AND MASTER'S THESIS

- Own research project
- ARL: SL, 15 CP; MT: FP, 30 CP

Boundary condition: **only one** of **ARL** and **Master's Thesis** may be carried out externally,  
**NOT BOTH**

“external” := not at a university

- i.e., at a company or external research institution
- exceptions:
  - GSI (@ Prof. Toimil-Molares)
  - MPA/IfW (@ Prof. Oechsner)
  - Fraunhofer IWKS (@ Prof. Weidenkaff)
  - KIT (@ Profs. Krupke or Kübel)
 are counted as “internal”

External ARL or Master's Thesis: If the company or research institution requires a non-disclosure agreement (NDA), check with your internal supervisor, if he/she is willing to sign, since nobody else will do so.

3. Semester <i>(optional stay abroad)</i>	CP SWS	4. Semester	CP SWS
(3) Advanced Research Lab with Seminar	<b>SL 15</b> pass/fail Lab24+P2	(9) Master Thesis and Defense	<b>FP 30</b> graded

Please note the guidelines for  
Master theses and, if  
applicable, the additional  
guidelines for external Master  
thesis in the  
[Documents & Forms section](#)  
for M.Sc. students!



# INDUSTRIAL LAB / INTERNSHIP

- Formally prerequisite for admission to M.Sc., but may be finished until before starting Master's thesis
- if you already did it for the B.Sc., you're done

- Internship at company (or research institute outside TU Darmstadt)
- Duration of at least 6 weeks
- Related to materials science
- Internship report mandatory
  
- Apprenticeship or work experience in related areas is also fine (get approval!)
- Information sheet on Master homepage

Get approval  
beforehand !!!

- Approvals, reports, other questions: [Dr. Enrico Bruder, phone 16-22556, e.bruder@phm.tu-darmstadt.de](mailto:e.bruder@phm.tu-darmstadt.de)

# INTERNATIONAL EXCHANGE PROGRAMMES

- Next application period for Erasmus+ places within **Europe**: May 2024
- Application period for places **worldwide** with deadline for most applications: 30.11.2024, some earlier!
- All information and further links on our website:  
[www.mawi.tu-darmstadt.de/studium/im\\_studium/auslandsstudium/index.en.jsp](http://www.mawi.tu-darmstadt.de/studium/im_studium/auslandsstudium/index.en.jsp)
- More information in RL II introductory session or contact **Dr. Hannah Sonderfeld**  
[auslandskoordination@mawi.tu-darmstadt.de](mailto:auslandskoordination@mawi.tu-darmstadt.de)
- publications for download from DAAD (in German):  
[www.studieren-weltweit.de/publikationen](http://www.studieren-weltweit.de/publikationen)

# Erfolgreich Studieren mit „Studiertechniken“

Link for course in English: [Moodle course Study Skills \(english\)](#)

In dem Moodlekurs [Studiertechniken - HDA](#) finden Studierende



Podcasts,



Vorlagen,



Videos und



Spiele,



die sie beim Lernen und Studieren unterstützen.

<https://moodle.tu-darmstadt.de/course/view.php?id=30555>



# MATERIALS SCIENCE AT TU DARMSTADT



Good Luck!

Check the MaWi-Master's homepage:

[https://www.mawi.tu-darmstadt.de/studium/im\\_studium/master\\_mawi/index.en.jsp](https://www.mawi.tu-darmstadt.de/studium/im_studium/master_mawi/index.en.jsp)

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