

Information for new master's students

M.Sc. Aerospace Engineering



TECHNISCHE
UNIVERSITÄT
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MechCenter
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Regulations for the degree programme (2021)

Welcome Students! We're so glad you're here!

This handout offers you a first insight into planning and organising your studies. We provide a selection of important information to help you get off to a good start in your master's degree programme Aerospace Engineering. For more information please contact the MechCenter - your study office at the Department of Mechanical Engineering. We will be happy to help you. In section 3 → **Advice and contact persons** we give you an overview of our services, so it's easy for you to find the right people to contact.

The first section → **Study organisation**, provides useful information about course registration, requirements and procedures for examination registration, withdrawal from examinations, and regulations on retaking failed examinations (maximum attempts). This information is especially helpful for students who are new to the TU Darmstadt. If you have already completed your bachelor's degree at the TU Darmstadt, you are probably familiar with much of the information mentioned here. However, please particularly pay attention to the information about failed examinations and the registration processes for the Advanced Design Project (ADP), the external project work and the master's thesis.

In section 2 → **Planning your studies**, you learn about the exemplary study and examination plan, where to find legal documents, a description of the compulsory Elective Areas, General Studies (Studium Generale), Advanced Design Projects (ADP), tutorials, admission subject to conditions (Auflagen), as well as thesis requirements and preparation time.

Please note that the examination regulations are the legal basis for your studies and that reading this paper does not mean that you can skip reading the examination regulations. This paper is for information purposes only.

1. Study organisation

1.1. Registration for courses and modules in TUCaN

TUCaN is the central organisation system for courses and examinations at the TU Darmstadt, with which you manage your entire student life, please also check → **TUCaN Video Tutorials**:

- When registering for a module you specify an assignment area. Registrations must always be made in the personal TUCaN area via the menu "Courses" > "Registration" (not via the menu "Course Catalogue").
- Registration for modules and courses is always required; this must be done in TUCaN, ideally at the beginning of the semester.
- Always register the module and course first (= prerequisite), only then it is possible to register for the examination in TUCaN as well.
- Registration for the module / course **does not** replace registration for the examination: **Registration for the examination is always additionally required in TUCaN.**
- Registration for a module and course does not obligate the student to take the examination: The examination can also be taken in a later semester, or not at all (individual decision of the student).

1.2. Examinations: Registration and withdrawal, maximum number of repetitions

Important information about registering for examinations:

- **All examinations** (oral or written) **must be registered in TUCaN by the deadline before the examination.**

- Registration or withdrawal via TUCaN is **binding**.
- If the registration or withdrawal from an examination is not possible in TUCaN, then immediately → **email the MechCenter - Examination Management** in order to meet the deadline for registration or withdrawal.
- In the case of a **repeat examination**, the **registration button** can be found in the semester in which the module was first registered.

1.2.1. Procedure - Examination registration (also applies to conditional requirements)

- **Registration deadlines must be adhered to:**
Registration deadlines can be found in TUCaN in relation to each exam. In general the following deadlines apply:
 - For written examinations, at the latest 4 weeks before the examination date
 - For oral examinations, at the latest 8 days before the examination date
 - **For examinations from other departments („module number does not begin with the 16-“), different examination registration deadlines apply (check respective sections under → Exam Details in TUCaN).**
- **Oral examinations:**
first make an individual appointment with the professor of the subject area or the relevant secretariat, then register in TUCaN;
- **Written examinations:**
always register directly via TUCaN;
- **Registration of ADP and master's thesis:**
only by emailing the → **MechCenter: Examination Management**
- **Registration of Tutorial:**
Visit the → **institutes website** of the tutorial (3rd column , abbreviation “FG” in the document → **"Module overview in elective areas"** indicates the institute) to inform yourself about the registration process for tutorials, since the process varies depending on the institute.

1.2.2. Procedure - Examination withdrawal (also applies to conditional requirements)

- **all exams must be → withdrawn from online via TUCaN**
- **Withdrawal deadlines must be adhered to:**
 - Without giving a reason, **at the latest 8 days before the examination** directly via TUCaN;
 - On the 7th day before the examination a withdrawal is only possible by contacting → **MechCenter: Examination Management via email;**
 - After that, a withdrawal is only possible due to illness.
- **in the event of inability to take the examination due to illness, → various points must be observed**
 - **The inability to take an examination must be certified:**
The certificate must be submitted by Email to → **MechCenter: Examination Management** no later than three calendar days after the examination date. If you throw it in the silver letterbox in front of "MechCenter" (L1|01, north quadrant, ground floor) please also add reference "for examination xy" and your matriculation number.

1.2.3. Attempted modules

- A module is deemed attempted if there has been one failed examination (grade 5.0).

- **In general, all attempted modules must be passed** in order to be able to complete the degree programme, even if the minimum number of CP in the corresponding Electives Area has already been achieved or exceeded.
 - Exception 1: Possibility of dropping an attempted module in the Electives Areas I, II, III
In the Electives Areas I (Ia + Ib combined), II and III, a module that has not been completed, i.e. has been attempted, can be dropped once upon request, see current version of the → „**General Examination Terms of the TU Darmstadt**“, Novelle 6, §30, paragraph 5.
Please send your request to → pruefungsmanagement@mechcenter.tu-darmstadt.de (no forms required)
 - Exception 2: Unrestricted change of modules only in General Studies
In the area of General Studies (Studium Generale), a module that has not been completed can be dropped as often as desired, see current version of the → „**General Examination Terms of the TU Darmstadt**“, Novelle 6, §30, paragraph 6.
In this case, no further steps are necessary for opting out of the module. As soon as the area has a sufficient number of CP, the failed performances are no longer considered.

1.2.4. Repeat examinations

- A **failed examination** can be repeated a **maximum of 2** times (i.e. a maximum of **three examination attempts** are possible for **each subject** examination), see current version of the → „**General Examination Terms of the TU Darmstadt**“, Novelle 6, §31, paragraphs 1-4. A second repetition of the final thesis is not permitted.
- In addition, a "supplementary oral examination" is possible in **one subject per degree programme** (grade 4.0 or 5.0) if the following **requirements** are met:
 - The **third written examination** attempt was failed, see the current version of the "General Examination Terms of the TU Darmstadt", Novelle 6, §32 paragraphs 1-3.
 - The **application** for a "supplementary oral examination" must be submitted to the Examination Management (room L1|01, room 82/83) **within a period of 4 weeks after the grade has been published in TUCaN** → The application is filled out directly in the Examination Management Office.
 - **Deadline:** the "supplementary oral examination" must take place **no later than eight weeks after the announcement of the examination results of the third attempt.**

1.2.5. Help with registering and withdrawing from examinations

If you have any questions or difficulties registering for or withdrawing from examinations, submitting certificates in the event of illness or inability to take examinations, or registering for a master's thesis or an ADP, our colleagues

→ **Examination Management** at the MechCenter are happy to help.

2. Planning your studies

2.1. Essential documents for study planning

- → **Regulations of the study programme**
- → **Course of study**
- → **Overview of the modules for the Electives Areas**
(this document will be in English available soon, meanwhile please check TUCaN "Courses" > "Registration" > Choose the specific "Electives Area")
Current overview of the modules for the Electives Areas Ia, Ib, II and III (core engineering subjects and Aerospace Engineering specific subjects, please see section → **2.2**, as well as tutorials, please see section ; this list is updated every semester.

The up-to-date versions of the documents mentioned above can also be accessed via the MechCenter website under → [Study > Downloads](#) (> Master's programme: Aerospace Engineering > Study regulations 2021).

2.2. Required examination achievements

- A total of 120 CP (ECTS credits) are required.
- 1 CP corresponds to 30 hours of student work.
- CP are awarded after passing the examination.
- Recommendation: acquire approx. 30 CPs per semester → Standard period of study: 4 semesters = 2 years

According to the regulations of the degree programme, graded examinations from the following areas are required:

Areas of study plan	Description and minimum required credit points of each elective are* <i>*The stated minimum required credit points must be completed for each area.</i>
Tutorial	1 Tutorial (4 CP) A list of Tutorial can be found in the document, the last column (AE) indicates that the tutorial is suggested for Aerospace Engineering: → "Module overview in elective areas" and on TUCaN.
Projects	12 CP are required , please check for more details → 2.5 2 Advanced Design Projects (ADP) (2 x 6 CP) <i>or</i> 1 Advanced Design Project (ADP, 6 CP) and 1 External Project Work (6 CP)
Electives Area (EA)	
Electives Area Ia: Fundamentals (EA-Ia)	minimum of 6 CP are required (1 module from Electives Area Ia – Fundamentals) For more information on available modules please check TUCaN "Courses" > "Registration" > Choose the specific "Electives Area" <u>or</u> use the document → "Module overview in elective areas" (English document will be provided soon). If you take more modules from EA-Ia, overflow** will be considered in EA-II
Electives Area Ib: Digitalisation (EA-Ib)	minimum of 6 CP are required (1 module from Electives Area Ib – Digitalisation) For more information on available modules please check TUCaN "Courses" > "Registration" > Choose the specific "Electives Area" <u>or</u> use the document → "Module overview in elective areas" (English document will be provided soon). If you take more modules from EA-Ia, overflow** will be considered in EA-II

<p>Electives Area II: Core Electives from Mechanical Engineering (EA-II)</p>	<p>minimum of 32 CP are required</p> <ul style="list-style-type: none"> ▪ At least 24 CP must be chosen in the elective area “EA-II Core Electives from Aerospace Engineering” & ▪ further 8 CP might be chosen either in the area “EA-II Core Electives from Aerospace Engineering” or in the area “EA-II Core Electives (other modules)” ▪ Maximum 12 CPs from courses offered by a single professor can be considered. <p>For more information on available modules please check TUCaN "Courses" > "Registration" > Choose the specific "Electives Area" <u>or</u> the document → "Module overview in elective areas" (English document will be provided soon).</p> <p>Please mind: Overflows from EA-Ia & EA-Ib can not be considered as the required 24 CP of “EA-II Core Electives from Aerospace Engineering” area.</p> <p>If you take more modules from EA-II, overflow** will be considered in “EA-III Electives (other modules)”</p>
<p>Electives Area III: Electives from the Natural Sciences and Engineering (EA-III)</p>	<p>required 18 - 24 CP, the range and requirements depend on the amount of CP you gain in General Studies (6-12 CP):</p> <ul style="list-style-type: none"> ▪ At least 12 CP must be in “EA-III Electives from Aerospace Engineering” & ▪ further 6 CP might be chosen either in the area “EA-III Electives from Aerospace Engineering” or in the area “EA-III Electives (other modules)” <p>For more information on available modules please check TUCaN "Courses" > "Registration" > Choose the specific "Electives Area" <u>or</u> use the document → "Module overview in elective areas" (English document will be provided soon).</p> <p>Overflows** from the EA-Ia, EA-Ib and EA-II (totaling > 44 CPs) are considered in the area containing unspecified modules of the compulsory “EA-III Electives (other modules)”.</p>
<p>Required CP for Electives Area</p>	<p>Minimum requirement of EA-Ia + EA-Ib + EA-II ≥ 44 CP <i>please additionally mind the AE-specific requirement in EA-II which are described above</i></p> <p>Minimum requirement: EA-Ia + EA-Ib + EA-II + EA-III = 62 to 68 CP <i>please additionally mind the AE-specific requirement in EA-II and EA-III which are described above</i></p>
<p>General Studies</p>	<p>Minimum requirement: 6 - 12 CP, for more information please look in section → 2.4</p>
<p>Master-Thesis</p>	<p>30 CP; 900 h Workload:</p> <ul style="list-style-type: none"> ▪ Thesis must be completed and submitted within 24 weeks. ▪ Thesis has to be written in English and must be within the subject area of Aerospace Engineering. <p>For more information please also check section → 2.6</p>

** Overflows are calculated and processed in TUCaN automatically. Overflows from the Electives Areas Ia and Ib and the Aerospace Engineering courses in the core teaching area (EA-II Aerospace Engineering) are considered in the “EA-II Core Electives (other modules)” with modules of the Compulsory EA-II Core Electives without Aerospace Engineering”. Overflows from the Electives Areas Ia, Ib and II (totaling > 44 CPs) are considered in the “EA-III Electives (other modules)” with modules of the Compulsory “EA-III Electives from the Natural Sciences and Engineering without Aerospace Engineering”. In addition, the CP range in the Studium Generale (general studies) (6-12 CPs) section allows for additional 6 CPs to be entered from the Compulsory Electives Areas containing modules of the Department of Mechanical Engineering.

2.3. Conditional requirements - According to the letter of admission

If conditional requirements are stated in the letter of admission, these modules must be completed and examined in addition to the master's programme modules. Conditional requirements are fundamental modules from the bachelor's programme that are crucial to understanding the master's courses. The deadlines by which conditional requirements must be met is stated in the letter of admission and must be adhered to.

Information about completing conditional requirements:

1. Depending on previous knowledge: Attend lectures (recommended, but lectures are held in German) or learn content on your own (without attending lectures). The → **List of Literature to prepare for conditional requirement courses** may help you to prepare for the examinations. The recommended learning recourses are available at → **"University and State Library Darmstadt" ULB**), some are also available as → **ebooks**. → **TUfind** helps you to locate, or even get access to the books.
2. Online-registration in TUCaN is required (possible from the second week of lectures onwards):
 1. Register for the module → 2. Register for the course/lecture → 3. Register for the examination.
3. Written examinations are offered every semester – in German and in English.
4. Deadlines for taking examinations: stated in the letter of admission.
5. Number of possible repeat examinations: stated in the letter of admission.
6. If the required subjects have not been examined in time, this is grounds for a withdrawal of admission, which leads to exmatriculation. The master's degree programme can then no longer be continued.
7. A supplementary oral examination is not permitted for conditional requirements.

2.4. General Studies (6 – 12 CP)

- The requirements for the General Studies (e.g. list of modules approved for the area General Studies; module and examination registration in TUCaN under "General Studies" (not under "Additional Achievements"!)) are described → **here**.

2.5. Project work (12 CP; 2 x ADP or 1 x ADP & 1 external project work)

- Advanced Design Project (ADP)
 - The task and any possible requirements are specified by the department offering the programme. An overview of the ADP that are currently offered is provided on this → **Website** (page will be provided in English soon).
 - To register for an ADP please check information → **here** and send the signed assignment with the form to → **MechCenter: Examination Management**.
 - One ADP must be taken from the Aerospace Engineering subject area.
- External project work:
 - Scope: 180 hours, to be completed in the context of a professional internship in fulltime which lasts at least 12 weeks.
 - Requirements for companies: Industrial companies / start-ups (more than 5 employees); no public research institutions (e.g. GSI, DLR, Fraunhofer, ESA etc.).
 - Students search for companies and apply for positions on their own initiative.
 - A self-reflection must be prepared in digital form at the end of the internship as specified in the module handbook.
 - Registration, recognition process and information on the self-reflection requirements are described → **here**.

2.6. Final project: The master's thesis (30 CP)

Requirements for the registration of the master's thesis:

- All conditional requirements have been met (passed)
- At least 65 CP have been earned, including:
 - 2 ADP or 1 ADP and an external project work
 - Tutorial
 - 1 module from Electives Area Ia – Fundamentals
 - 1 module from Electives Area Ib - Digitalisation
- If an external thesis is planned, an application to the Dean of Studies is required. The procedure is described on our → [website](#).
- Thesis has to be written in English and must be within the subject area of Aerospace Engineering. The aerospace engineering reference must be confirmed by the professor.
- The thesis-examiner may only have examined one of the two Advanced Design Projects.

Timeframe: max. 24 weeks (900 hours of student work)

The **registration process** for the Master's thesis is described on our → [website](#).

3. Advice and contact persons

If you have any questions or need advice, simply contact the MechCenter. The MechCenter is your study office. You will find all contacts and office hours of the MechCenter → [here](#).

MechCenter: Student Advisory Services

Study planning, M.Sc. tips for exam preparation, applications in cases of hardship, disadvantage accommodations, recognition of achievements from a first degree programme

→ [Contact information and consultation hours](#)

MechCenter: International Affairs

Exchange programmes, studying abroad and recognition of credits earned abroad

→ [Contact information and consultation hours](#)

MechCenter: Examination Management

Questions about registering and withdrawing from examinations, submitting a medical certificate, registering or submitting a master's thesis

→ [Contact information and consultation hours](#)

You can attend the open consultation hours without making an appointment or just write us an email.

Student Representatives of the Department Mechanical Engineering (FSMB)

Elected student representatives who advocate for the interests of students and advise from a student perspective
→ fsmb@fsmb.tu-darmstadt.de

Finding Help and Support at TU Darmstadt

Numerous service and contact points provide students with advice and practical help and in finding answers to organisational questions related to their studies. Contact persons are ready and waiting to help with special requests, such as study financing matters, complaints or help during challenging life circumstances.

→ [Overview on Counselling, Help and Information from A to Z at TU Darmstadt](#)