WELCOME

to the Master’s Degree Program

Geodesy and Geoinformation Science

Technische Universität Berlin

A Guide for International Students

Version 21 October 2020
Dear students

Welcome to TU Berlin!

Welcome to the Master’s Program Geodesy and Geoinformation Science! We hope, this guide will make it easier for you to adjust to your new environment.

We recommend that you:

- Review the Website of our Institute: https://www.igg.tu-berlin.de
- Check the module catalog for up to date information on courses: https://moseskonto.tu-berlin.de/moses/modultransfersystem/studiengaenge/anzeigen.html?id=91

Corona UPDATE

Review the handout on Corona hygiene: https://www.static.tu.berlin/fileadmin/www/1000000/Coronavirus/Grafik/Infektionsschutz_HALM.pdf

Check the latest information about Corona: https://www.tu.berlin/en/themen/coronavirus/

Starting October 19, the TU Berlin is in phase 2 of its Corona plan, i.e. the majority of buildings at TU Berlin where teaching takes place are open. Students have access to these buildings only. Staff have access to all buildings. Buildings open for teaching are also open to external parties such as suppliers, those attending events, individuals and organizations renting space on the campus and persons coming to sign contracts. Access to buildings other than these for students and external parties is only possible with an entry permit issued by the head of an academic chair.

GENERAL ACADEMIC CALENDAR

The following is a general outline for each academic year. The exact dates you can find here: https://www.tu.berlin/en/studying/applying-and-enrolling/dates-deadlines/

<table>
<thead>
<tr>
<th>Winter Semester</th>
<th>01 Oct - 31 March</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture Period</td>
<td>mid October - mid February</td>
</tr>
<tr>
<td>Winter holidays</td>
<td>Approx. 20 Dec. to first days of January</td>
</tr>
<tr>
<td>Exam period</td>
<td>End of February</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summer Semester</th>
<th>01 April - 30 September</th>
</tr>
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<tbody>
<tr>
<td>Lecture Period</td>
<td>mid April - mid July</td>
</tr>
<tr>
<td>Summer holidays</td>
<td>May 1st, Ascension Day, Pentecost</td>
</tr>
<tr>
<td>Exam period</td>
<td>End of July</td>
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</tbody>
</table>
STRUCTURE OF THE UNIVERSITY

The universities of Berlin are organized according to the principle of academic self-administration: Academic Senate, the Council, the Board of Trustees and the President. The President acts as the head of the University and is elected by the Council for a period of 4 years. Faculties are in charge of teaching and research. They independently organize their curricula, research projects and the work plans of all employees.
Faculty VI - Planning Building Environment

Faculty VI consists of 8 institutes:
- Institute of Geosciences
- Institute of Architecture
- Institute of Civil Engineering
- Institute of Geodesy and Geoinformation Science
- Institute of Landscape Architecture and Environmental Planning
- Institute for Ecology
- Institute of Sociology
- Institute of Urban and Regional Planning

https://www.planen-bauen-umwelt.tu-berlin.de

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Department of studies and teaching
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10623 Berlin

Faculty Council
- Legislate statutory provisions (e.g. exam regulations and conditions of study),
- Coordination of teaching and research
- Actions to ensure necessary teaching
- Appropriation and management of resources of the faculty (jobs, properties and funds)

List of members:
https://www.planen-bauen-umwelt.tu-berlin.de/menue/einrichtungen/gremien_beauftragte/fakultaetsrat

Committees for Education and Study Programs
https://www.planen-bauen-umwelt.tu-berlin.de/menue/einrichtungen/gremien_beauftragte/beauftragte_und_gremien_der_studiengaenge

Women’s Representative
sec. A 1
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10623 Berlin
https://www.planen-bauen-umwelt.tu-berlin.de/menue/einrichtungen/gremien_beauftragte/frauenbeauftragte

Student Counsellor
TU Berlin - Institute of Geodesy and Geoinformation Science, sec. KAI 2-2
Tel.: +49 30 314-23183
Our goal is to qualify students to develop, optimize, implement and advance methods in geodesy and geoinformation science.

Important: Your classes will be at the TU Berlin main building (Straße des 17. Juni 135, 10623 Berlin). The offices of professors and staff are at Kaiserin-Augusta-Allee (KAI) 104-106, 10553 Berlin.

The best way to reach our offices from the main building is by walking or by bicycle. Subway station Mierendorffplatz is also nearby, but it is not connected to the subway near the main campus.

**MASTER’S PROGRAM Geodesy and Geoinformation Science**

Students receive the academic degree “Master of Science” if they successfully pass the Master’s examination. The Master’s program Geodesy and Geoinformation Science connects the two disciplines geodesy and geoinformation science. Our target group are national and international students who have achieved at least a bachelor’s degree.

Geoinformation science is based on geodetic reference systems, which are prerequisites for data acquisition, processing, updating, and analyzing spatial databases. These skills are also important in modelling and visualization, as well as, for navigation and guidance techniques or other location-based services.

Geodetic methods encompass the techniques of terrestrial surveying, photogrammetry, and remote sensing technology. Object modelling includes statistics and error estimation. Emphasis
is given on data generation that is coordinated to well-defined reference systems with well-known accuracy. The science of Geodesy forms the basis for many geoinformation systems.

Our science-oriented master's program *Geodesy and Geoinformation Science* offers four specializations:

1. Geoinformation Technology (GIS)
2. Space Geodesy and Navigation (SGN)
3. Engineering and Estimation Theory (EGA)
4. Computer Vision and Remote Sensing (CV)

The Master’s program Geodesy and Geoinformation Science requires four semesters and a total of 120 ECTS-points (credit points, CP). In the first semester we focus on achieving a common foundation. In semesters 2 and 3 you will specialize. In your last semester you will write your Masters Thesis.

1st Semester (Fundamentals)

In the first semester, students select basic modules for a total of at least 30 credit points (CP). During the first semester students reach a common foundation for the following semesters.

Foundation Section (30 CP)

<table>
<thead>
<tr>
<th>Modules equivalent to 30 CP must be selected from the foundation (FOU) section</th>
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<tbody>
<tr>
<td>FOU Geoinformatics 1</td>
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<tr>
<td>FOU Adjustment Calculation 1</td>
</tr>
<tr>
<td>FOU Spatial Databases and Infrastructures</td>
</tr>
<tr>
<td>FOU Introduction to Satellite Geodesy</td>
</tr>
<tr>
<td>FOU CV1 Photogrammetric Computer Vision</td>
</tr>
<tr>
<td>Applied Geophysics</td>
</tr>
</tbody>
</table>

2nd and 3rd Semester

The total amount of credit points for both semesters is 60. In the 2nd and 3rd semester students select a specialization:

1. Geoinformation Science
2. Space Geodesy and Navigation
3. Engineering Surveying and Estimation Theory

A specialization has a total of at least 21 ECTS-points. This includes a project seminar (6 CP). In addition, students choose modules with an amount of 9 CP from each remaining thematic block (Minor block).
Specializations

21 credit points (including 6 CP for a project seminar) should come from one of the four specializations. 9 additional CP come from the remaining specializations.


4th Semester

The master thesis in your 4th semester is a work of research and constitutes an essential part of the program. The thesis accounts for 30 ECTS-points. The thesis can be in English or German. It must be submitted at the latest 6 months after you receive your topic.

Students may work together on a master thesis. However, this must be approved by the examination board.

Elective Section (12 CP)

In addition to the major and minor courses, you need 12 elective CP from the TU Berlin or other universities. We recommend a language module as well as courses from the special catalogue of interdisciplinary courses (FÜS).

Although TU Berlin offers an increasing number of courses in English, most lectures and courses are in German. You can enroll for German language courses through TU Berlin’s Center for Modern Languages (ZEMS).

COOPERATIONS

We collaborate with the GeoForschungsZentrum (GFZ) Potsdam, the German Aerospace Centre (DLR) in Berlin, other administrative agencies and regional/national/international Universities.

GFZ, DLR and others

Collaborations with the GeoForschungsZentrum (GFZ) Potsdam have a long history. The S-Professorships “Satellite Geodesy”, “Physical Geodesy” and “GNSS Remote Sensing, Navigation and Positioning” strengthen this cooperation and enable students to participate in current research projects.
The cooperation with the German Aerospace Centre (DLR), Institute of Planetary Research, in Berlin-Adlershof includes the S-Professorship “Planetary Geodesy”. Focus is on photogrammetry and planetary cartography.

Collaborations with other universities include

- Istanbul Technical University (ITÜ) in Istanbul (Turkey)
- Yildiz Technical University in Istanbul (Turkey)
- University of Calgary in Calgary (Canada)
- University of Melbourne in Melbourne (Australia)
- University of Texas in Austin (Texas, USA)
- Novosibirsk State Technical University (Russia)
- Tongji-University Shanghai (China)
- University of Architecture, Civil Engineering and Geodesy (UACEG), Sofia, Bulgaria

FEES

There are no tuition fees for the master’s program Geodesy and Geoinformation Science. However, every student at the TU Berlin has to pay approximately 300€ per semester for administrative fees and a so-called “semester ticket” for public transport in Berlin.

Mentoring program

The mentoring program is voluntary. It promotes contact between students and university teachers. Students will be assigned a mentor. The aim is to provide students with support in planning their studies and to identify potential problems on time. We recommend you to maintain this contact throughout your time at the University.
Online Catalog - Moses Course Catalog

In the Moses Catalog you can find the up-to-date listing of courses.

FYI (For your Information): SWS stands for “Semesterwochenstunden” (number of hours per week of a course during a semester). The average class usually accounts for 2 SWS. An “academic hour” is 45 minutes, e.g., 2 SWS constitute 90 minutes of work per week.

https://moseskonto.tu-berlin.de/moses/modultransfersystem/studiengaenge/anzeigen.html?id=91
Online Teaching Platform ISIS

Through ISIS you have access to most of your classes and teaching material.

https://isis.tu-berlin.de

*Figure*: On the left panel of ISIS you can see a list of your courses.
EXAMINATION

To sign up for an exam you have to apply online (QISPOS) or at the examination office.

Examination Office
Team 5
Room H 25 (ground floor, main building)
Phone: +49 30 314-24971
E-mail: ib5@pruefungen.tu-berlin.de
Office hours:
Monday, Thursday, Friday: 09:30 - 12:30
Tuesday 13:00 - 16:00

For portfolio exams you need a “Yellow Sheet”, which you can find in the “Blue Cave” (German “Blaue Grotte”), located at the ground floor of the Main Building. You find them sorted by faculties. We are Faculty VI.

FYI: The first page of the so-called “yellow sheets” is actually white. Most of the text is in German and English.

An example of how to fill out a yellow sheet can be found on the homepage of our institute under the category: „Download“/ „How to register for an examination?“, see https://www.igg.tu-berlin.de/fileadmin/i64/Studienberatung/How_to_register_for_an_examination.pdf

From the examination office you get the yellow part of the sheet back. Return the yellow sheet to one of the following offices (see end of this document for contact information):

SGN, GIS: Rosemarie Kunkel
EGA: Pia Daute
CV: Marion Dennert

Furthermore, the examination office is responsible for:

- providing study and examination regulations
- application and admission for the final exam (Bachelor/ Master)
- registration for single subject and module exams
- cancellation of registered exams
- legalization of Bachelor and Master degree certificates, diplomas and diploma supplements
- certification of passed exams (only for completed modules)
- current study account for (governmental) authorities, scholarships, BAföG, application purposes etc.

FYI: It is possible to withdraw from an examination until 24 hours before the examination date. In case you are sick with a doctor’s note, you can withdraw any time.
Examination Registration on QISPOS

1. Login with your password under: [https://www.tu.berlin](https://www.tu.berlin)
2. Click on “Prüfungsanmeldung”

3. Enter your Tan Nr.
4. Click on “QISPOS“

5. Click on “Master Geodesy a. Geoinf-Science 2007”

6. Choose, for example, “Computer Vision and Remote Sensing”
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