Introduction in the master’s degree of Civil Engineering

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Course coordinator
Study counsellor
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Introduction in the master‘s degree of Civil Engineering

Dipl.-Ing. Eva Bodemer
Course coordinator
Study counsellor

Manuela Schillo M. A.
Examination administration & secretary
m.schillo@tum.de
Office Hours

In Person:
Wednesday 14.00-16.00
Theresianum Intermediate floor
(Groundfloor – first floor)

Zoom Office Hours:
Thursday 10.00-12.00
Examination administration and study guidance
https://tum-conf.zoom.us/j/63122068364
Meeting-ID: 631 2206 8364
Kenncode: BAU
General information

RoomFinder:

e.g.: N1190; 1200

a) If there is no letter in front of the room number (mostly „N“ for the North building), it is the main building.
b) The first number name the floors (0 – ground floor, 1 – first floor, etc.)
   *Attention*: in the North building 1 (N1) the numeration begins only from the first floor (0 – first floor, 1 – second floor, etc.)
c) The second number name the building (1 – building 1, 2 – building 2, etc)
d) The last two numbers name the continuous numeration of the rooms
Roomfinder

Examples:
N1190  N  North building
1    first floor
1    building 1
00    room 00

1180  1    first floor
1    building 1
80    room 80
Date of the Examination

Lecture period: 25.04.2022 – 29.07.2022
Lecture-free periods (semester break): 30.07.2022 – 16.10.2022

Lecture-free days:
- May Day: 01.05.2022
- Ascension Day: 26.05.2022
- Whitsun Vacation: 04.06.2022 – 07.06.2022
- Whit Monday: 06.06.2022
- Feast of Corpus Christi: 16.06.2022

Exam period:
- Expected: 25.07.- 05.08. Elective Modules
- Expected: 15.08.-15.09. Required Modules

Exam registration

at Civil and Environmental Engineering:
- Modules: 30.05.2022 - 30.06.2022
- Registration and Deregistration via TUMonline
Date of the Examination

Exam deregistration:
- Required Modules: For the first attempt till 4 days before the exam
- Elective Modules till 2-3 days before the exam (you can see it in TUMonline)

Exam registration of other departments in TUMonline:

30.05.2022 - 30.06.2022
Date of the Examination

There must be a registration for the exam in TUMonline to pass the exam!!!
(Also in projects and academic achievements!)

If you have problems with the registration, please contact us before the deadline expires.
Questions

1. What should I do first?
2. How do I find the right specializations?
3. Who is the mentor for the main subject?
4. Can I book my specializations myself in TUMonline?
5. Can I change my specializations?
6. How does the personalized specializations work?
7. How do I know which courses are taking place now and how do I register?
8. How do I create my timetable?
9. If I have registered for the course, do I also have to write the exam?
10. How many credits should I take in the first semester?
11. Are the exams online or in person?
Dokumente / Documents – M.Sc. BI

- vorläufige Stundenpläne / preliminary Timetables SoSe 22 - updated: 25.03.2022
  - Pflichtmodule / Required modules:
  - Vorleistungen:
  - allgemeine Infos:
- Stundenpläne / Timetables WS 21/22 - updated: 14.10.2021
  - Pflichtmodule:
  - Vorleistungen:
  - allgemeine Infos:
- Allgemeine Prüfungs- und Studienordnung – APSO
- Fachprüfungs- und Studienordnung – FPSO

vorläufige Stundenpläne / preliminary Timetables SoSe 22 - updated: 25.03.2022

Pflichtmodule / Required modules:

https://wiki.tum.de/pages/viewpage.action?pageId=876675571
https://wiki.tum.de/display/docs/View+semester+plan+and+schedule
TUMonline

Tutorials YouTube:

https://www.youtube.com/results?search_query=tum+online+course+registration
TUMonline

- Every student can view his personal curriculum in TUMonline
  https://wiki.tum.de/display/docs/Studierende

- Registration for the courses via TUMonline
  https://www.youtube.com/watch?v=SEgMSleuSaw

- Registration and deregistration of exams via TUMonline
  https://www.youtube.com/watch?v=R1NHCG72GYI

- Score publication via TUMonline
- Certificate of Enrolment etc. can be printed out via TUMonline
  https://www.youtube.com/watch?v=2x4cCnRD1E8

- You can also print out a Examination Report / Grade Report
- Information brochure:
  https://portal.mytum.de/navigation_view?
  https://wiki.tum.de/display/docs/View+semester+plan+and+schedule
Search for courses on TUMonline!

- Click "Study Status/ Curriculum"

You can see your Areas of Specialization, all the Required- and Elective Modules such as dates of the exams, grades, …
Structure of the master’s program in Civil Engineering

GENERAL ACADEMIC AND EXAMINATION REGULATIONS
for Bachelor’s and Master’s Programs (APSO)
at the Technische Universität München
Dated 18 March 2011

Satzung zur Änderung der ALLGEMEINEN PRÜFUNGS- und STUDIENORDNUNG
für Bachelor- und Masterstudiengänge
an der Technischen Universität München
Vom 29. Oktober 2012

Fachprüfungs- und Studienordnung
für den Masterstudiengang Bauingenieurwesen
an der Technischen Universität München
Vom 1. Juni 2016

FPSO 20191 in the curriculum of TUMonline!!!
Structure of the master’s program in Civil Engineering

4 areas of specialization or
3 areas of specialization + 1 personalized specialization subject

<table>
<thead>
<tr>
<th>1st to 3rd semester</th>
<th>4th semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 Credits from the Required Modules</td>
<td>Specialization Subject 1</td>
</tr>
<tr>
<td>6 Credits from the Elective Modules</td>
<td>Specialization Subject 2</td>
</tr>
<tr>
<td>12 Credits from the Required Modules</td>
<td>Specialization Subject 3</td>
</tr>
<tr>
<td>6 Credits from the Elective Modules</td>
<td>Specialization Subject 4</td>
</tr>
<tr>
<td>9 Credits from the Elective Modules</td>
<td>Personalized Specialization Subject</td>
</tr>
</tbody>
</table>

**Master’s Thesis (30 Credits)**

<table>
<thead>
<tr>
<th></th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>4th semester</td>
<td>30</td>
</tr>
<tr>
<td>1st to 3rd semester</td>
<td>72/75</td>
</tr>
<tr>
<td>Elective Modules from the Master’s program in Civil Engineering</td>
<td>12/9</td>
</tr>
<tr>
<td>6 Credits from the whole range of the TUM</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
</tr>
</tbody>
</table>

Aus: FPSO20191
Structure of the master’s program in Civil Engineering

There are 22 different areas of specialization:

You choose your Areas of Spezialisation when applying for the master’s degree.
Structure of the master’s program in Civil Engineering

22 areas of specialization

<table>
<thead>
<tr>
<th>Baukonstruktion</th>
<th>Structural Mechanics</th>
<th>Bauphysik</th>
<th>Bauprozessmanagement</th>
<th>Bauwerksverhaltung</th>
<th>Computation in Engineering</th>
<th>Energy Efficient and Sustainable Design and Building</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geotechnik</td>
<td>Holzbau</td>
<td>Hydro-mechanics</td>
<td>Real Estate Development</td>
<td>Massivbau</td>
<td>Metallbau</td>
<td>Engineering Risk and Reliability</td>
</tr>
<tr>
<td>Urban Water Systems Engineering</td>
<td>Structural Analysis</td>
<td>Traffic Control and Transport Planning</td>
<td>Verkehrswegebau</td>
<td>Hydraulic and Water Resources Engineering</td>
<td>Werkstoffe</td>
<td>Tunnelbau</td>
</tr>
</tbody>
</table>

- **Modules in German**
- **Modules in English**
- **Modules in English or German**

- Querschnittsvertiefung
Structure of the master’s program in Civil Engineering

There are 22 different Areas of Specialization – detailed of TUMonline:

<table>
<thead>
<tr>
<th>Area of Specialization</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural Design</td>
<td>18</td>
</tr>
<tr>
<td>Structural Mechanics</td>
<td>18</td>
</tr>
<tr>
<td>Building Physics</td>
<td>18</td>
</tr>
<tr>
<td>Management of Materials, and Engineering Processes</td>
<td>10</td>
</tr>
<tr>
<td>Condition Control and Repair of Structures</td>
<td>10</td>
</tr>
<tr>
<td>Energy Efficient and Sustainable Design and Building</td>
<td>18</td>
</tr>
<tr>
<td>Foundation Engineering</td>
<td>18</td>
</tr>
<tr>
<td>Timber Structures</td>
<td>18</td>
</tr>
<tr>
<td>Hydromechanics</td>
<td>18</td>
</tr>
<tr>
<td>Real Estate Development</td>
<td>10</td>
</tr>
<tr>
<td>Concrete and Masonry Structures</td>
<td>10</td>
</tr>
<tr>
<td>Metal Structures</td>
<td>10</td>
</tr>
<tr>
<td>Engineering Materials and Reliability</td>
<td>18</td>
</tr>
<tr>
<td>Urban Water Systems Engineering</td>
<td>18</td>
</tr>
<tr>
<td>Structural Analysis</td>
<td>15</td>
</tr>
<tr>
<td>Traffic Control and Transport Planning</td>
<td>10</td>
</tr>
<tr>
<td>Road, Railway and Airfield Construction</td>
<td>10</td>
</tr>
<tr>
<td>Hydraulic and Water Resources Engineering</td>
<td>18</td>
</tr>
<tr>
<td>Building Science</td>
<td>18</td>
</tr>
<tr>
<td>Personalized Specialization</td>
<td>21</td>
</tr>
<tr>
<td>Master’s Thesis</td>
<td>30</td>
</tr>
<tr>
<td>Supplementary Subjects</td>
<td>6</td>
</tr>
</tbody>
</table>
## Structure of the master’s program in Civil Engineering

### Curriculum
Academic year 2017/18

<table>
<thead>
<tr>
<th>Node-Name</th>
<th>credits</th>
<th>sem.</th>
<th>WF</th>
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</thead>
<tbody>
<tr>
<td>(20161) Master Civil Engineering</td>
<td>120</td>
<td>1</td>
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<tr>
<td>actual Credits of Required Modules</td>
<td>48</td>
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<tr>
<td>actual Credits of Elective Modules</td>
<td>36</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>actual Credits of Supplementary Subjects</td>
<td>6</td>
<td>1</td>
<td></td>
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<td><strong>Areas of Specialization</strong></td>
<td>72</td>
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<tr>
<td>Specialization Subject Structural Design</td>
<td>18</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Specialization Subject Structural Mechanics</td>
<td>18</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Specialization Subject Building Physics</td>
<td>18</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Specialization Subject Management of Business- and Engineering Processes</td>
<td>18</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Specialization Subject Condition Control and Repair of Structures</td>
<td>18</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Specialization Subject Computation in Engineering</td>
<td>18</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Specialization Subject Energy Efficient and Sustainable Design and Building</td>
<td>18</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Specialization Subject Foundation Engineering, Soil Mechanics, Rock Mechanics and Tunnelling - Required Modules</td>
<td>18</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Specialization Subject Timber Structures</td>
<td>18</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Specialization Subject Hydromechanics</td>
<td>18</td>
<td>1</td>
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<tr>
<td>Specialization Subject Real Estate Development</td>
<td>18</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Specialization Subject Concrete and Masonry Structures</td>
<td>18</td>
<td>1</td>
<td></td>
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<tr>
<td>Specialization Subject Metal Structures</td>
<td>18</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Specialization Subject Engineering Risk and Reliability</td>
<td>18</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Specialization Subject Urban Water Systems Engineering</td>
<td>18</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Specialization Subject Structural Analysis</td>
<td>18</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Specialization Subject Traffic Control and Transport Planning</td>
<td>18</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Specialization Subject Road, Railway and Airfield Construction</td>
<td>18</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Specialization Subject Hydraulic and Water Resources Engineering</td>
<td>18</td>
<td>1</td>
<td></td>
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<tr>
<td>Specialization Subject Building Materials</td>
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<tr>
<td>Personalized Specialization Subject</td>
<td>21</td>
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</tr>
<tr>
<td>Catalogue of Elective Modules</td>
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<td></td>
</tr>
<tr>
<td>Supplementary Subjects</td>
<td>30</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Master’s Thesis</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Structure of the master’s program in Civil Engineering

Attention: Lectures that will be hold at the same time

Attention:

Due to the high number of specialisations, there are several overlapping courses.

Every student must create his or her own individual timetable!
Structure of the master’s program in Civil Engineering

Attention: Lectures that will be hold at the same time

<table>
<thead>
<tr>
<th>Metal Structures</th>
<th>Road, Railway and Airfield Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timber Structures</td>
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<td>Energy Efficient and Sustainable Design and Building</td>
</tr>
</tbody>
</table>
Structure of the master’s program in Civil Engineering

Personalized Specialization Subject

- The choice of the subjects should be related to the future job outline and be made in your personal interest
- Subjects should supplement the other areas of specialization
- When choosing a Personalized Specialisation Subject the individual choice of subjects has to be arranged with the Main Subject and handed in by the end of the lectures of the first semester of the master’s program (for the winter semester until the 31st of January, for the summer semester until the 31st of July). Students missing this deadline cannot choose a Personalized Specialization Subject. They have to choose a fourth regular Area of Specialization.
- The choice of the Required Modules of the Personalized Specialization Subject, signed by the Main Subject and the student are binding and cannot be changed afterwards. (An exception is only possible if the chosen module is verifiably not accessible anymore).
Structure of the master’s program in Civil Engineering

Personalized Specialization Subject

- The choice of the Elective Modules of the Personalized Specialization Subject can still be changed, if the modification is coordinated with the main subject. Therefore the form for the choice of the Personalized Specialization Subject has to be filled in again and signed by the main subject showing the new date.

- Generally, subjects for the Personalized Specialization Subject can be compiled by the whole range of the TUM. Whether this combination makes sense or not will be examined by the Main Subject.

- However, it is not possible to choose a 12-Credits-Required Modules of a master’s program in Civil Engineering in the Personalized Specialization Subject. Students who choose 12-Credits Required Modules of a specialization can not do this in the Personalized Specialization Subject. They have to take the regular specialization.
Structure of the master’s program in Civil Engineering

Main Subject:

You choose one Chair/Area of specialization in Civil Engineering as a Main Subject

Functions:
- Examine the combination of the chosen specialization on job-related meaning
- Approve the chosen subjects of the Personalized Specialization
- Advise and supervise questions of the Specialization Subjects

The master’s thesis is not linked to the Main Subject.
The Main Subject act as a mentor.
How to contact my mentor?
- Contact the responsible chair of the specialization, ask who is the mentor.
Structure of the master’s program in Civil Engineering

Personalized Specialization Subject

- To write the master’s thesis in a Personalized Specialization Subject, you have to make a written application at the examination board
- The module required to reach the last Credit counts in full
- Example:

  1. Required module: 5 ECTS
  2. Required module: 4 ECTS
  3. Required module: 4 ECTS

  In total: 13 ECTS in the required modules
Structure of the master’s program in Civil Engineering

Personalized Specialization Subject

Only the corresponding form is accepted for the Personalized Specialization Subject. Please send it to Manuela Schillo m.schillo@tum.de

https://www.bgu.tum.de/bau/downloads/
## Structure of the master’s program in Civil Engineering

### Personalized Specialization Subject

Wahl der Querschnittsvertiefung im
TUM Master Bauingenieurwesen/
Choice of the Personalized Specialization Subject
of the master’s program in Civil Engineering

| Name, Vorname/
Surname, First Name | ........................................................................................................... |
|---------------------|-------------------------------------------------------------------------------------------------|
| Matrikelnummer/
Registration Number  | ........................................................................................................... |
| Vertiefungsfächer/
Area of Specialization | 1. ........................................................................................................... |
|                     | 2. ........................................................................................................... |
|                     | 3. ........................................................................................................... |

| Modulnummer/
Module ID | Prüfungsmodul/
Examination module | Lehrstuhl/
Chair | ECTS/
Credits | P / R* | W / E* |
<table>
<thead>
<tr>
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</thead>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
Structure of the master’s program in Civil Engineering

Choice of specialization

- Combinations related to the future job
- Subjects that comply with your personal interests and preferences

**Motivation:**

Where are my strengths and interests?
What kind of work will I do?
Where / how can I learn it best at the university?
Do the chosen subjects fit together?
Job prospects?
Is there any sympathy to the chairs?
Structure of the master's program in Civil Engineering

I want to change my choice of specialization

- Within the first Master's semester, a change of specialisation is possible without the consent of the lead subject. Please fill in the form and send it to Manuela Schillo m.schillo@tum.de

- From the second semester onwards, a change of specialization is only possible with the consent of the main subject. Send the form with the signature of the main subject to Ms Schillo m.schillo@tum.de

- Attention: Those who were registered for the examination of a required module of a specialization and have not deregistered or have not passed must first pass this module before a change is possible!

http://www.bgu.tum.de/de/bau/downloads/
Structure of the master’s program in Civil Engineering

6 ECTS from the whole range of the TUM (Supplementary Subjects):

- whole range of the TUM
- Language courses:
  - English Courses only higher levels than submitted for the application (from C1 range)
  - German Courses from level B2
  - All other languages: from A1.2 range
  - Other courses depend on the native language. Courses in the native language are not counted.
  - **Requirement:** Any module in German until the end of the 2nd semester!
- Carl von Linde Akademie
- Modules from abroad

Structure of the master's program in Civil Engineering

6 ECTS from the whole range of the TUM (Supplementary Subjects):

By activating the "inact. nodes" all supplementary subjects can be displayed which were occupied in the past
Progress review

APSO §10:

In the master’s program you have to achieve

1. by the end of the third semester at least 30 credits,
2. by the end of the fourth semester at least 60 credits,
3. by the end of the fifth semester at least 90 credits,
4. by the end of the sixth semester at least 120 credits.

The curriculum provides 30 credits per semester to complete the master’s degree in the standard period of study.

1 Required Modul must be passed until the 2nd semester !!!!
Structure of the master’s program in Civil Engineering

Master’s Thesis:
- in one of the four specialization (to write the master’s thesis in a Personalized Specialization Subject, you have to make a written application at the examination board)
  - Duration 6 months
  - 30 credits
  - Requirement: at least 75 credits achieved!
  - Application of the master’s thesis via the BGU-portal by the supervisor
  - Start after passing the module examinations recommended
  - The period from start to delivery may not exceed 6 months
Leave of Absence

The regulations are stipulated in the TUM Enrollment Statutes.

- A leave of Absence takes place only for important reasons (illness, internship, which cannot be completed in the lecture-free period alone, ...)

- A leave of absence is normally approved for one semester and should not exceed two semesters.

- You are required to hand in your application for a leave of absence in writing, using the official form provided by TUM. The application has to be submitted at the start of the lecture period. (see also TUM-Homepage, dates + deadlines)

- You cannot participate in courses or lectures during a leave of absence. Make-up examinations can still be taken, however.

For further details: https://www.tum.de/studium/im-studium/beurlaubung/
Contact persons

- Study counsellor/ Course coordinator: Frau Dipl.-Ing. Bodemer
  (e.bodemer@tum.de)

- Examination administration & secretary: Frau Schillo M.A
  (m.schillo@tum.de)

- Study abroad / International Affairs Delegate: Frau Klomke
  (n.klomke@tum.de)
Inspiration. Interdisciplinary. Intercultural. Apply now!

With an international and interdisciplinary orientation, the Oskar von Miller Forum provides a programme scholarship with place of residence to students of architecture, civil and environmental engineering and construction technicians.

https://www.oskarvonmillerforum.de/en/application/
Thank you for your attention and a good start in your master‘s program!