

# Introduction in the master's degree of Civil Engineering



Eva Bodemer Course coordinator Study counsellor <u>e.bodemer@tum.de</u>





# 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**



# Zoom Office Hours:

Thursday 10.00-12.00 Examination administration and study guidance <u>https://tum-conf.zoom.us/j/63122068364</u> 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



# **Date of the Examination**

Lecture period: 15.04. – 19.07.2024

#### Lecture-free days:

May Day: 01.05.2024
Ascension Day: 09.05.2024
Whitsun Vacation: 18.05.2024 – 21.05.2024
Whit Monday: 20.05.2024
Feast of Corpus Christi: 30.05.2024
TUM Sustainability Day: 12.06.2023 (from 12 p.m.)

Exam period:

- expacted: last week of the semester first week semesterbreak Elective Modules
- expacted: Required Modules check TUMonline

Exam registration

- Modules: 20. May 30. June
- Registration and Deregistration via TUMonline



# **Date of the Examination**

Exam deregistration:

- Required Modules: till 7 days before the exam
- Elective Modules till 7 days before the exam (you can see it in TUMonline)



# **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?

-> register for all courses (green "T") that interest me. (see module description "book symbol" incl. prerequisites) regardless of whether it is a compulsory or elective module

[20231] Master Civil Engineering []	
actual Ora dila of Described Medules	
actual Credits of Required Modules	
actual Credits of Elective Modules	
actual Credits of Supplementary Subjects	
🖻 🔜 Areas of Specialization 🕓 🧱	
🗉 🔲 Specialization Subject Structural Design 🕒 🥅	
🖻 🔲 Specialization Subject Structural Mechanics 🕓 🏢	
🗉 🔲 Required Modules 🕓 🏢	
K K [BV430008] Structural Dynamics ()	
🗉 🔵 [VK] [BV430008] Structural Dynamics 🕓 🥅	
🗉 🔺 [VK] Structural Dynamics Lecture 🕓 🥅	
🗉 🔺 [VK] Structural Dynamics Seminar 🕓 🧱	
🗉 🔺 [VK] Structural Dynamics Tutorial 🕒 🥅	
🖽 🜞 [VK] [BV020001] Continuum Mechanics 🕓 🧱	

2. how do I know which courses are taking place now and how do I enrol? -> only if you see a green "T" does the course take place in the current semester. All courses take place either in summer or winter.



# Questions



3. if I have registered for the course, do I also have to take the exam? -> No! Registration for the course is not linked to exam registration.

4. why can I not register for courses?
-> Only those who are fully enrolled can register for the course via TUMonline.
Please contact the lecturers and ask to be added to Moodle!

5. how does the registration for courses in the personalized specialization and in the supplementary subjects work? -> register as "free subject" until the personalized specialization has been entered. Always register supplementary subjects as "free subjects".

ТШ

# Questions



6. how many credits should I take in the first semester? -> If you want to complete the Master's program in 4 semesters, you must take 30 ECTS per semester. (20 - 30 ECTS are usual)

7. can I enter my specializations myself in TUMonline? -> No, this is only possible for the examination administration.

8. how do I create my own timetable?

-> compare the timetables of the individual specializations on the Civil Engineering Wiki to see when which course takes place in order to avoid overlaps. Once you have registered for the courses, you can create a timetable in TUMonline.

see next 2 slides...

#### https://wiki.tum.de/pages/viewpage.action?pageId=876675571 (Wiki Civil Engineering)



#### https://collab.dvb.bayern/display/TUMdocs/View+semester+plan+and+schedule (Wiki TUM "Students")



# **TUMonline**

Tutorials YouTube:

#### https://www.youtube.com/results?search\_query=tum+online+course+registration



# **TUMonline**

- Every student can view his personal curriculum in TUMonline <u>https://wiki.tum.de/display/docs/Studierende</u>
- Registration for the courses via TUMonline
   <u>https://www.youtube.com/watch?v=MsBN7R6OqSk</u>
- Registration and deregistration of exams via TUMonline

https://www.youtube.com/watch?v=N4ghx0qc338

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



# **MyTUM**

# https://portal.mytum.de/navigation\_view?









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



# 22 areas of specialization

	Baukonstruktion	Structural Mechanics	Structural Bauphysik Bauprozess- Mechanics Bauphysik anagement Bauwerks- erhaltung ar		Computation Modeling and Simulation	Energy Efficient and Sustainable Design and Building		
	Geotechnik	Holzbau	Hydro- mechanics	Real Estate Development	Massivbau	Metallbau	Engineering Risk and Reliability	
	Urban Water Systems Engineering	Structural Analysis	Traffic Control and Transport Planning	Verkehrs- wegebau	Hydraulic and Water Resources Engineering	Werkstoffe	Tunnelbau	
Moorles in German Modules selection					Modules in Er Modules in Er	nglish nglish or Germ	an	

Note: Hybride Specialization 1 Course in German + 1 Course in English

	Go to	Go to					
Curriculum	Display Refi	resh midata					
Academic year 2017/18	Node Exa	m date					
	Academic year 🚤	2017/18	-				
Node-Name		rec. Credits	WF				
[20161] Master Civil Engineering		120	1				
actual Credits of Required Modules		48	1				
actual Credits of Elective Modules		36	1				
actual Credits of Supplementary Subjects		6	1				
Areas of Specialization ()		72	1				
🗉 🔲 Specialization Subject Structural Design 🕒 🧰		18	1				
Specialization Subject Structural Mechanics (3)		18	1				
Specialization Subject Building Physics (9)		18	1				
Specialization Subject Management of Business- and Engineering Processes ()		18	1				
Specialization Subject Condition Control and Repair of Structures ()		18	1				
🗉 💻 Specialization Subject Computation in Engineering 🕓 🥅		18	1				
🗉 🔲 Specialization Subject Energy Efficient and Sustainable Design and Building 🕑 🧰		18	1				
Specialization Subject Foundation Engineering, Soil Mechanics, Rock Mechanics and Tunn	elling - Required Modules	18	1				
🗉 💻 Specialization Subject Timber Structures 🕓 🥅		18	1				
🗉 💻 Specialization Subject Hydromechanics 🕒 🥅		18	1				
🗉 💻 Specialization Subject Real Estate Development 🕑 🥅		18	1				
Specialization Subject Concrete and Masonry Structures ()		18	1				
Specialization Subject Metal Structures ()		18	1				
🗉 💻 Specialization Subject Engineering Risk and Reliability 🕓 🥅		18	1				
🗉 📟 Specialization Subject Urban Water Systems Engineering 🗿 🌃		18	1				
E Specialization Subject Structural Analysis ()		18	1				
Specialization Subject Traffic Control and Transport Planning Image I		18	1				
Specialization Subject Road, Railway and Airfield Construction ()		18	1				
Specialization Subject Hydraulic and Water Resources Engineering ()		18	1				
E Specialization Subject Building Materials ()		18	1				
Personalized Specialization Subject ()		21	1				
Catalogue of Elective Modules ()			1				
Supplementary Subjects ()		6	1				
Master's Thesis ()		30	1				

Attention: Lectures that will be hold at the same time

**Attention:** 

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

Every student must create his or her own individual timetable!

Metal Structures	Road, Railway and Airfield Construction
Timber Structures	Traffic Control and Transport Planning
Structural Analysis	Building Materials and Condition Control and Repair of Structures
Structural Mechanics	Hydraulic and Water Resources Engineering
Foundation Engineering, Soil Mechanics, Rock Mechanics and Tunneling	Building Physics
Management of Business- and Engineering Processes	Hydromechanics
Structural Design	Urban Water System Engineering
Computation in Engineering	Real Estate Development
Concrete and Masonry Structures	Energy Efficient and Sustainable Design and Building



# **Specializations selected SoSe 24**





# **Specializations selected in SoSe 24**

# Problems:

- very many fellow students in one course
- too few places
- this prolongs of your study time
- too few Master's theses at the end of the course
- prolongation of your study time
- a lot of competition on the job market with the same qualifications



# **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 indiviual 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**).
- The choice of the Required Modules of the Personalized Specialization Subject, signed by the Main Subject and the student are binding and can not be changed afterwards. (An exception is only possible if the chosen module is verifiably not accessible anymore).

**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.

# Main Subject:

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

Functions:

- Examine the combination of the choosen specialization on job-related meaning
- Approve the choosen 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.

**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

**Personalized Specialization Subject** 

Only the corresponding form is accepted for the Personalized Specialization Subject. Your mentor will send it to Manuela Schillo <u>m.schillo@tum.de</u>

https://wiki.tum.de/pages/viewpage.action?pageId =876675571

Wahi der Querschnittsvertiefung im TUM Master Baulngenleurwesen/ Choice of the Personalized Specialization Subject of the master's program in Civil Engineering						
Name, Vomame/ Sumame, First Nar	ne					
Matrikelnummen' Registration Numbr	¥					
Vertiefungsfächer/ Area of Specializati	<b>1</b>	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				
	2					
	3					
Modulnummen'	Prüfungsmodul/	Lehrstuhi/	ECTS/	P)R*	AN. E	
Module ID	Examination module	Chair	Credits			
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* WM nach Absprache a agreement with the main	ni dem Leidhch-Menter Respek I subject mentor; at least 12 Ce	egt; mindestess 12 PBcht- und mindesten edbs of the Required Modules and at least	a 9 Wahitredita/ 9 Gredita of the	is determine Elective Mo	sd after skales	
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**Personalized Specialization Subject** 

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# **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?

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 main subject. Please fill in the form and send it to Manuela Schillo <u>m.schillo@tum.de</u>
- 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 <u>m.schillo@tum.de</u>
- Attention: Those who were registered for the examination of a required module of a specialization and have not deregistered or have not passed must <u>first</u> pass this module before a change is possible!

DER VORSITZENDE DES	PRÜFUNGSAUSSCHI	USSES	
FÜR DIE DIPLOM-, BACH	ELOR- UND MASTERF	RÜFUNG	
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Änd	lerung der Vertiefu	ngsfachkombination/	
Changing	the combination of	the Specialization Su	ibject
Name Vorname/			
Surname, First Name			
Matrikelnummer/			
Registration Number			
Email			
Hiermit melde ich mich ge	amäß der Prüfungsord	nung für Bauingenieure (I	Master-FPSO
I hereby register in accord	dance with the examin	ation regulations for civil	engineers (Maste
FPSO 2016+2018+2019)	for the following chang	ged combination of the Pe	arsonalized
Specialization subject:			
1. Leitfach/			
Main subject			
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Area of Specialization			
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consultation with both ch	airs involved. All cha	anges must be notified in	written form to
examination board.			
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Unterschrift Leitfach/ Signature	Main Subject	Hoterschrift Studentin	Signature Student

https://wiki.tum.de/pages/viewpage.acti on?pageId=876675571

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
  - 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

#### www.sprachenzentrum.tum.de/sprachen/deutsch-alsfremdsprache.

You must register for the supplementary subjects as a free subject!

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



Node filter-Name		Part of the Curriculum	rec. sem.	Credits	WF
🗏 📙 [20191] Master Civil Engineering		Yes		120	1
actual Credits of Required Modules		No		48	1
actual Credits of Elective Modules		No		36	1
actual Credits of Supplementary Subjects		No		6	1
Areas of Specialization (3)		Yes		12	1
Catalogue of Elective Modules ()		Yes			1
Supplementary Subjects ()		Yes		6	1
VK] [AR17042] Historic Structures ()	<b>U</b>	Yes		3	1
□ ◆ [VK] [AR17041] Climate responsive Building II ④ I	<u> </u>	Yes		3	1
₩ ◆ [VK] [BGU900010] Partner University - Elective Module ③ 🔟	ų.	Yes			1
□		Yes		5	1
■ ◆ [VK] [BGU900015] Partner University - Elective Module ③ 🔟	ці.	Yes		3	1
🗉 🔶 [VK] [BGU900016] Partner University - Elective Module 🕓 🧰	Щ.	Yes		3	1
🕮 🔶 [VK] [BGU900011] Partner University - Elective Module 🕓 🧰	Щ.	Yes			1
🕮 🔶 [VK] [BGU900012] Partner University - Elective Module 🕓 🧰	Щ.	Yes			1
🕮 🔶 [VK] [BGU900013] Partner University - Elective Module 🕓 🤖	Dia 1	Yes			1
🕮 🔶 [VK] [BGU900014] Partner University - Elective Module 🕓 🤖	Щ.	Yes		3	1
■  ♦ [VK] [WZ2003] Biochemistry 2: Metabolism  §	Щ.	Yes		3	1
🗉 🔶 [VK] [BV470017] Advanced GIS for Environmental Engineering - Applications 🕓 🧰	<b>1</b>	Yes		3	1
VK] [MW0174] Building Aerodynamics (3) in	<u> i</u>	Yes		3	1
VK] [CH1120] General and Inorganic Chemistry ()	<u> i</u>	Yes		3	1
VK] [BGU38019] Anaerobic Processes and Energy Recovery () in	<u>iii</u>	Yes		3	1
■ ♦ [VK] [AR17003] Applied Planning and Building Legislation ③	<b>1</b>	Yes		3	1
VK] [BGU37016] Optimization of building materials for practical applications 🕜 in	<u> iii</u>	Yes		3	1
🗉 🔶 [VK] [WI001111] Applied Strategy and Organization: Strategies for international Corporations 🕥 🥅	<b>1</b>	Yes		6	1
■ ◆ [VK] [SZ0118] Arabic A1.1 ④ ■	ļ,	Yes		3	1
■ 🔶 [VK] [SZ0119] Arabic A1.2 👁 📧		Yes		3	1
■ ◆ [VK] [SZ0120] Arabic A2.1 ④ ■		Yes		3	1
■ ◆ [VK] [SZ0108] Arabic B1.1 @ ■		Yes		3	1
VKI (AR30049) Architecture in Extreme Environments I: Outer Space. Desert. Water Q initial		Yes		3	1
A     VKI BV6300041 Reports on Research and Engineering ()	61	Yes		2	1
■ ◆ [VKI [BV340015] Railway module ③ ■		Yes		3	1
KVK (RGU6500872) Computation in Civil and Environmental Engineering Supplementary Module 🔿 📼	60	Yes		5	1
	m	Ves		3	1
		Yes		3	1

# **Progress review**

1 Required Modul must be passed until the end of the 2nd semester !!!

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.

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# Thank you for your attention and a good start in your master's program!