

Freshmen orientation 2026

# Welcome to Mobility Systems!

Freshmen welcome  
and notes

Jonas Krombach  
Study Coordinator



# Number of the Day

3

**Freshmen**  
in Mobility Systems



# Structure of the Study Program



# Schedule and Timetable

## Which modules in the semester?

### Study schedule



## When are the courses?

### Timetable



## When which topic?

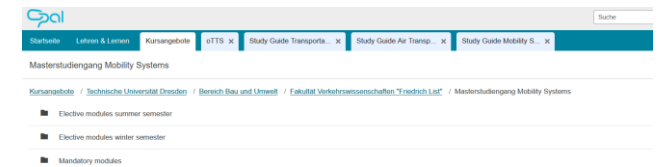
### OPAL courses of the teachers

|     | 2 <sup>nd</sup> semester                                   | 3 <sup>rd</sup> semester | 4 <sup>th</sup> semester                                 |
|-----|------------------------------------------------------------|--------------------------|----------------------------------------------------------|
| 1.  | Mobility System Planning and Research                      | Advanced elective module | Research Task in Mobility Systems<br><br>Master's thesis |
| 10. | Human Behavior and Environmental Effects in Transportation | Advanced elective module |                                                          |
| 13. | Design and Operation in Public Transportation              | Advanced elective module |                                                          |
| 20. | Road Design and Pavements                                  | Advanced elective module |                                                          |
| 25. | Data Models in Transport Planning                          | Free elective module     |                                                          |
| 30. | Free elective module                                       | Free elective module     |                                                          |

<https://tu-dresden.de/bu/verkehr/studium/im-studium/mobs>

[illegible]

<https://tu-dresden.de/bu/verkehr/studium/im-studium/mobs#section-2>



<https://bildungsportal.sachsen.de/opal/auth/repository/catalog/56408604676>

# Structure of the Study Program

|    | 1 <sup>st</sup> semester                                   | 2 <sup>nd</sup> semester        | 3 <sup>rd</sup> semester          | 4 <sup>th</sup> semester |
|----|------------------------------------------------------------|---------------------------------|-----------------------------------|--------------------------|
| 5  | Mobility System Planning and Research                      | <i>Advanced elective module</i> | Research Task in Mobility Systems | Master's thesis          |
| 10 | Human Behavior and Environmental Effects in Transportation | <i>Advanced elective module</i> |                                   |                          |
| 15 | Design and Operation in Public Transportation              | <i>Advanced elective module</i> | <i>Advanced elective module</i>   |                          |
| 20 | Road Design and Pavements                                  | <i>Advanced elective module</i> | <i>Advanced elective module</i>   |                          |
| 25 | Data Models in Transport Planning                          | <i>Free elective module</i>     | <i>Free elective module</i>       |                          |
| 30 | <i>Free elective module</i>                                | <i>Free elective module</i>     | <i>Free elective module</i>       |                          |

# Structure of the Study Program

| 1 <sup>st</sup> semester |                                                            | TIME / ZEIT    | MONDAY / MONTAG                                                                            | TUESDAY / DIENSTAG                                                                                        | WEDNESDAY / MITTWOCH                                                         | THURSDAY / DONNERSTAG                                                                          | FRIDAY / FREITAG                                                              |
|--------------------------|------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| 5                        | Mobility System Planning and Research                      | 1. DS<br>1. WO |                                                                                            |                                                                                                           |                                                                              |                                                                                                |                                                                               |
|                          |                                                            | 2. DS<br>1. WO | Bernard<br>VW M90/Fundamentals of Geoinformatics<br>HSZ/04/H                               | Wang, Y.<br>VO M03/Design and Operation in Public Transportation<br>BEV/0E17/H                            | Wittwer<br>VO M05/Data and Models in Transport Planning<br>POT/51/H          | Kerschke<br>UW M70/Methods in Data Analytics<br>POT/51/H                                       | Koettnitz<br>VO M04/Road Design and Pavements<br>POT 361/H                    |
|                          |                                                            | 2. DS<br>2. WO | Bernard<br>VW M90/Fundamentals of Geoinformatics<br>HSZ/04/H                               | Wang, Y.<br>VO M03/Design and Operation in Public Transportation<br>BEV/0E17/H                            | Wittwer<br>VO M05/Data and Models in Transport Planning<br>POT/51/H          | Kerschke<br>UW M70/Methods in Data Analytics<br>POT/51/H                                       | Koettnitz<br>VO M04/Road Design and Pavements<br>POT 361/H                    |
| 10                       | Human Behavior and Environmental Effects in Transportation | 3. DS<br>1. WO | Petzoldt<br>VO M02/Human Behavior and Environmental Effects in Transportation<br>POT/151/H | Wittwer<br>VO M05/Data and Models in Transport Planning<br>POT/112/H                                      | Koettnitz/Zeißler<br>VO M04/Road Design and Pavements<br>VMB/E02/U 1)        | Schneidmesser<br>VW M119/ The nexus of urban air pollution, transport, and policy<br>POT/151/H | Wang, Y.<br>VO M03/Design and Operation in Public Transportation<br>POT/112/H |
|                          |                                                            | 3. DS<br>2. WO | Petzoldt<br>VO M02/Human Behavior and Environmental Effects in Transportation<br>POT/151/H | Wittwer<br>VO M05/Data and Models in Transport Planning<br>POT/112/H                                      | Koettnitz/Zeißler<br>VO M04/Road Design and Pavements<br>VMB/E02/U 1)        | Schneidmesser<br>VW M119/ The nexus of urban air pollution, transport, and policy<br>POT/151/H | Wang, Y.<br>VO M03/Design and Operation in Public Transportation<br>POT/112/H |
|                          |                                                            | 4. DS<br>1. WO |                                                                                            | Gerike<br>VO M01/Mobility System Planning and Research<br>POT/151/H                                       | Gerike<br>VO M01/Mobility System Planning and Research<br>POT/361/H          | Schneidmesser<br>VW M119/ The nexus of urban air pollution, transport, and policy<br>POT/151/H |                                                                               |
| 15                       | Design and Operation in Public Transportation              | 4. DS<br>2. WO |                                                                                            | V Gerike<br>VO M01/Mobility System Planning and Research<br>POT/151/H                                     | Gerike<br>VO M01/Mobility System Planning and Research<br>POT/361/H          | Schneidmesser<br>VW M119/ The nexus of urban air pollution, transport, and policy<br>POT/151/H |                                                                               |
|                          |                                                            | 5. DS<br>1. WO |                                                                                            | Borken-Kleefeld<br>VO M02/Human Behavior and Environmental Effects in Transportation<br>POT/112/H         | Schade<br>UW M20/Basics in Psychology and Behavioural Economics<br>POT/106/U |                                                                                                |                                                                               |
|                          |                                                            | 5. DS<br>2. WO | Koettnitz/Zeißler<br>VO M04/Road Design and Pavements<br>VMB/E02/U 1)                      | Borken-Kleefeld<br>VO M02/Human Behavior and Environmental Effects in Transportation<br>POT/112/H         | Schade<br>UW M20/Basics in Psychology and Behavioural Economics<br>POT/106/U |                                                                                                |                                                                               |
| 20                       | Road Design and Pavements                                  | 6. DS<br>1. WO | Kerschke<br>VW M70/Methods in Data Analytics<br>HUL/S386/H                                 | Axhausen<br>VW M127/Exercises and Readings in Transport Policy in an Academic Context<br>POT/151/U *      |                                                                              | Henzen<br>U Fundamentals of Geoinformatics<br>AVO                                              |                                                                               |
|                          |                                                            | 6. DS<br>2. WO | Kerschke<br>VW M70/Methods in Data Analytics<br>HUL/S386/H                                 | Axhausen<br>VW M127/Exercises and Readings in Transport Policy in an Academic Context<br>POT/151/U *      |                                                                              | Henzen<br>U Fundamentals of Geoinformatics<br>AVO                                              |                                                                               |
| 25                       | Data Models in Transport Planning                          | 7. DS<br>1. WO |                                                                                            |                                                                                                           |                                                                              |                                                                                                |                                                                               |
|                          |                                                            | 7. DS<br>2. WO |                                                                                            | *) on / am 13.10.2026<br>27.10.2026<br>10.11.2026<br>24.11.2026<br>08.12.2026<br>12.01.2027<br>26.01.2027 |                                                                              |                                                                                                |                                                                               |
| 30                       | Free elective module                                       |                |                                                                                            |                                                                                                           |                                                                              |                                                                                                |                                                                               |

Our Recommendation:



# Content of a module

## The Meaning of the Term „Module“

### Module

Lecture

Exercise / Tutorial

Practical course

Lecture on a specific topic.

- Active participation due to the family size of the lectures.
- Ask questions! Questions are welcome!
- Please prepare well before and after the lecture!

Learning material is practiced, consolidated and deepened.

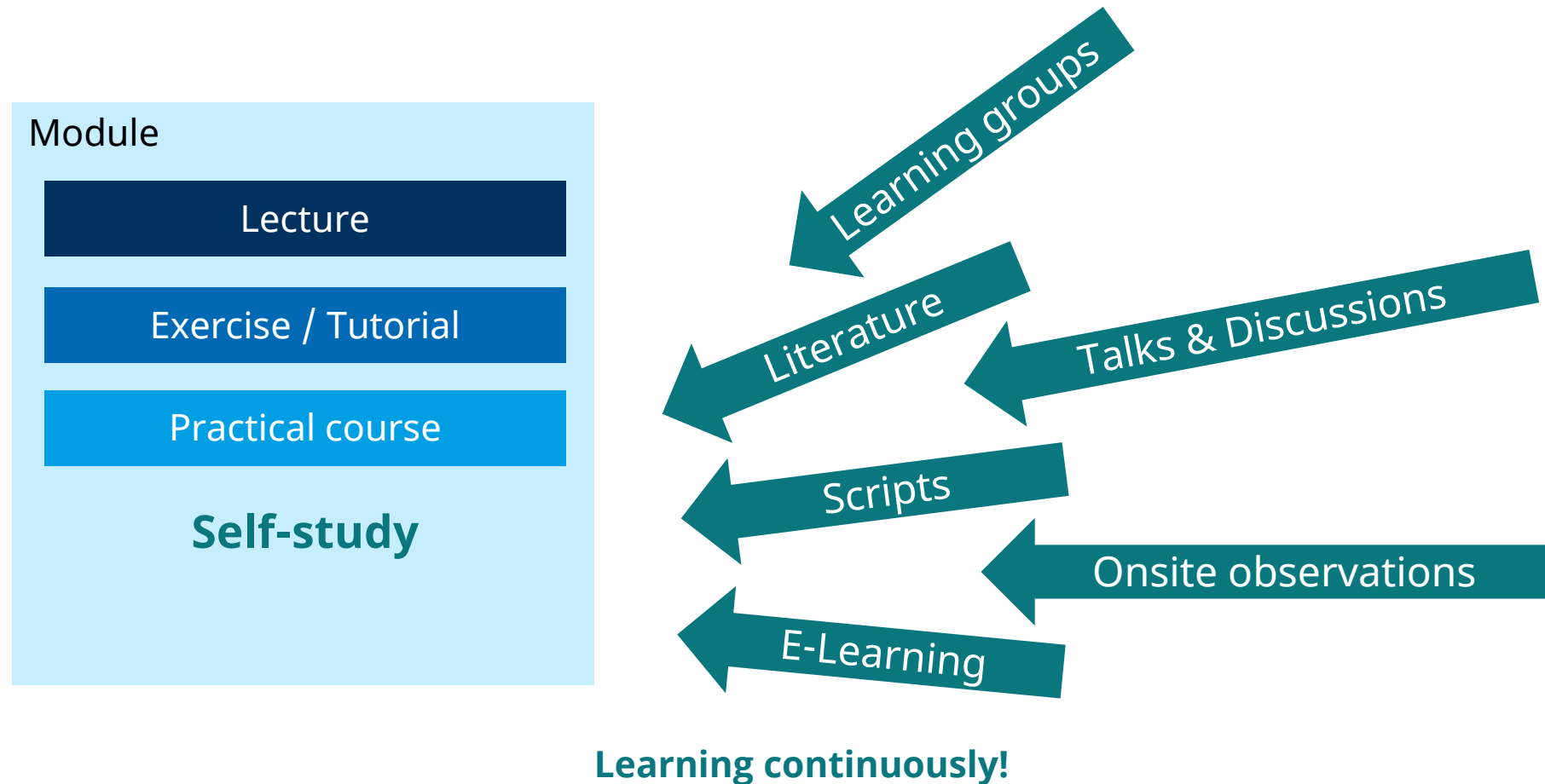
- Prepare and use!
- Ask questions and work together!

Practical application of knowledge.

- Prepare internships!
- Ask questions and work together!

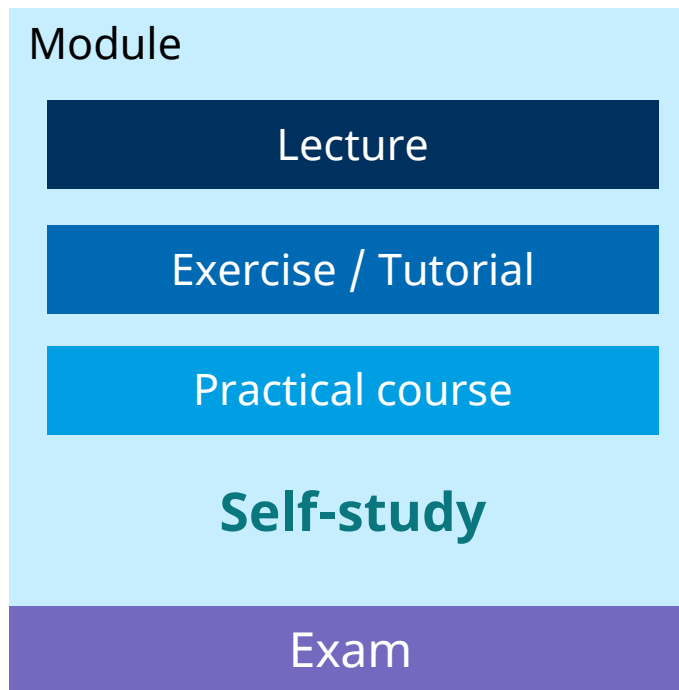
# Content of a module

## The Meaning of the Term „Module“



# Content of a module

## The Meaning of the Term „Module“



**Registration necessary! Observe deadlines.**

<https://tu-dresden.de/bu/studium/im-studium/pruefungen/pruefungsamt-verkehrswissenschaften/pruefungstermine/>

**Compensation for disadvantages possible.**

<https://tu-dresden.de/tu-dresden/organisation/gremien-und-beauftragte/beauftragte/bfsb/nachteilsausgleich>

**All information at the examination office:**

<https://tu-dresden.de/bu/studium/im-studium/pruefungen/pruefungsamt-verkehrswissenschaften>

# Important documents for the study

## The Module Handbook

### Examination regulations

Defines the rules for the examinations and the master thesis

### Study regulations

describes how the study program is organized

### Module descriptions

Gives detailed information about all individual modules



- Goals and contents
- Form of teaching and examination
- Time required
- Contact

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Module name                            | <b>Design and Operation in Public Transportation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Module number                          | VW-MOBS-03-SP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Module coordinator                     | Dean of Studies for Transport Engineering<br>studiendekan-viw@mailbox.tu-dresden.de                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Learning goals                         | Students are familiar with the structure, organization, and financing of public transportation, as well as the interests of public transportation users, and are able to design customer-oriented and cost-effective passenger transportation services in urban and rural areas and integrate them into a comprehensive service system. They will be familiar with the laws and principles governing operational procedures and will be able to plan and carry out operations reliably, as well as respond appropriately in the event of malfunctions. |
| Content                                | The module covers:<br>1st Structure, organization, and financing of public transportation; client-contractor relationships; and regional transit authorities,<br>2nd User expectations regarding public transportation,<br>3rd Fundamentals of service and operational planning in urban and rural areas,<br>4th Basics of operational procedures and<br>5th Operational control tools for routine and emergency situations.                                                                                                                           |
| Teaching and learning methods          | Lecture 2 hours per week, practical 2 hours per week, and independent study.                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Prerequisites                          | Participants require foundational knowledge of public transportation organization and operations planning at the Bachelor's level.                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Applicability                          | This module is a compulsory module in the Mobility Systems Master's degree program. It fulfills the requirements for the modules Module Railway Operation and Research Task in Mobility Systems.                                                                                                                                                                                                                                                                                                                                                       |
| Requirements for earning credit points | Credit points are awarded upon passing the module examination. The module examination comprises a 120-minute written test.                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Credit points and grades               | The module is worth 5 credit points. The module grade corresponds to the grade of the examined assessment.                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Module frequency                       | The module is offered each winter semester.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Workload                               | The workload comprises 150 hours in total.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Module duration                        | The module runs for the duration of one semester.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

All Study Documents:

<https://tu-dresden.de/bu/verkehr/studium/im-studium/mobs#section-2>

# Important documents for the study

## **AI Guidelines**

describe the rules and obligations for using AI

<https://tu-dresden.de/bu/verkehr/ressourcen/dateien/studium/KI-Richtlinie-2026-06-15-EN.pdf>

## **TUD Guidelines on Good Scientific Practice**

describe what must be observed in scientific work

[https://www.verw.tu-dresden.de/VerwRicht/Ordnung/download.asp?file=Satzung\\_wissFehlverhalten\\_US.pdf](https://www.verw.tu-dresden.de/VerwRicht/Ordnung/download.asp?file=Satzung_wissFehlverhalten_US.pdf)

# Central Information Source: Our Online Study Guide in OPAL



TU Dresden | semesterübergreifend

Study Guide Mobility Systems

Verantwortliche/r: [Paulina Höstl](#) | [Rico Wittwer](#)

[Weitere Informationen anzeigen](#)

## Module Guide Mobility Systems

[Full screen](#) | [Back to OPAL](#)

[You can find the current timetables here.](#)

### 1st semester

| Number                                                                                                 | Name                                                                                      | ETCS | Module responsible | Language of instruction | Description of the module             | Link (OPAL)          |
|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|------|--------------------|-------------------------|---------------------------------------|----------------------|
| VW-MOBS-01-SP                                                                                          | Mobility System Planning and Research                                                     | 5    | Gerike             | English                 | <a href="#">EN</a> <a href="#">DE</a> | <a href="#">Link</a> |
| VW-MOBS-02-SP                                                                                          | Human Behavior and Environmental Effects in Transportation                                | 5    | Borken-Kleefeld    | English                 | <a href="#">EN</a> <a href="#">DE</a> | <a href="#">Link</a> |
| VW-MOBS-03-SP                                                                                          | Design and Operation in Public Transportation                                             | 5    | Y. Wang            | English                 | <a href="#">EN</a> <a href="#">DE</a> | <a href="#">Link</a> |
| VW-MOBS-04-RR                                                                                          | Road Design and Pavements                                                                 | 5    | Koettnitz          | English                 | <a href="#">EN</a> <a href="#">DE</a> | <a href="#">Link</a> |
| VW-MOBS-05-DM                                                                                          | Data and Models in Transport Planning                                                     | 5    | Wittwer            | English                 | <a href="#">EN</a> <a href="#">DE</a> | <a href="#">Link</a> |
| 1 <a href="#">Advanced Elective Module</a> or<br>1 <a href="#">Free Elective Module</a><br>(see below) | (By the end of the program, you must have selected at least 6 Advanced Elective Modules.) | 5    |                    |                         |                                       |                      |

### 2nd semester

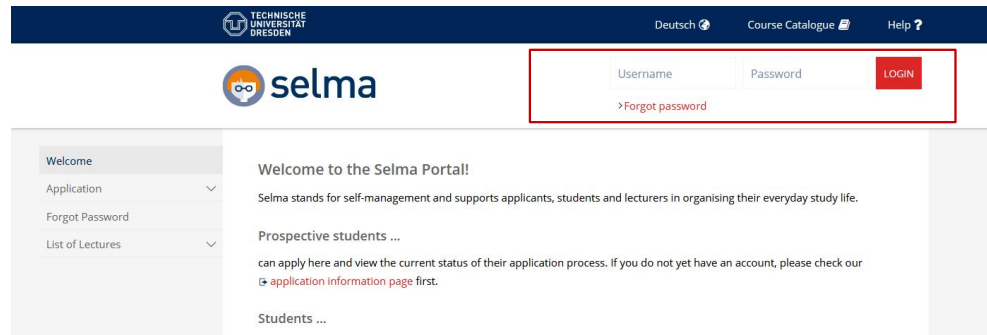
| Number                                        | Name | ETCS | Module responsible | Language of instruction | Description of the module | Link |
|-----------------------------------------------|------|------|--------------------|-------------------------|---------------------------|------|
| <a href="#">Advanced Elective Modules</a> and |      |      |                    |                         |                           |      |

Please register here:



<https://tud.link/3ngk4k>

# SELMA = Our Online Portal for Examination Affairs



Instructions for using the student portal "SELMA" for module and exam registration and deregistration:

- Link to the portal: <https://selma.tu-dresden.de>
- Login: ZIH-Login with corresponding password
- Contact address: [pruefungsmanagement.bu@tu-dresden.de](mailto:pruefungsmanagement.bu@tu-dresden.de) or supervising examination office



Module registration:

1. select the tab "Modules | Courses" and
2. then select the tab "Register | Deregister".
  - ATTENTION - if you do NOT select the second tab, you will not have the possibility to register modules and courses
3. In the middle part of the web window, select the area where your desired module is located.

# SELMA = Our Online Portal for Examination Affairs



## Registration for exam (pre)services:

1. select the tab "Exams" and
2. then select the tab "Register | Deregister".
  - ATTENTION - if you do NOT select the second tab, you will not be able to register for exams.
  - You can only register for exams if you have previously registered for the corresponding module!
3. In the middle area of the web window, select the exam you want to take
  - ATTENTION: the registration button appears only if registration is possible. Outside the registration periods this button is NOT available



## Exam results:

1. Under the "Exams" tab and the following
2. "Results" tab, you can view all your exam and module results
3. Under "Exam results", you can view the exam (pre-) performance results you have achieved in the respective semester.
4. Under "Semester Results", you can view the module exam results sorted by semester.
5. Under "Study results" you can view the total results of your enrolled study program.
  - Each module that has been started at least gets a hyperlink, which then leads you to the individual exam (pre)results

# Our Expectations

**Use your TU-Dresden email account for each contact to a member of the university!**

Why? Emails from gmail.\* etc. may not reach the intended post-box and can be stored in a spam folder or be blocked. It is unlikely, that you will receive an answer.

**When writing an email, start with your full name, study program and matriculation number followed by a brief content (avoid overloaded background stories).**

Why? Save your and our time! This enables direct assignments and faster response in line with

**Punctuality is expected anywhere.**

Why? We reserve defined times slots for you. Being late shortens your time slot und can disturb the flow of everyone. Punctuality is a sign of politeness and will be respected by your future employers.



How to get  
started?



# How to get started?

## 1. Get an Overview – This week (if possible)

- Participate in the **ESE** (Freshmen orientation week)
- Put together your **timetable**
- Register in **OPAL courses**
- Look through **information material** and important **websites**

## 2. Courses

- Information about the procedure and examination in the first semester week onsite and within module handbook
- Attend lectures and exercises!
- Prepare and the lecture and be communicative within → **critical thinking is expected**

## 3. Contacts

- **Making contacts:** finding friends, **forming study groups**, taking part in FSR (Student Council) events, TU Dresden University Sport Center

# Internet sources

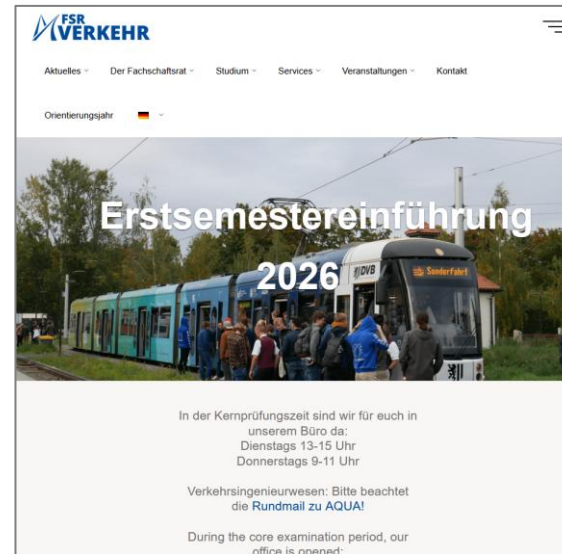
## Faculty

<https://tu-dresden.de/bu/verkehr/studium/im-studium>



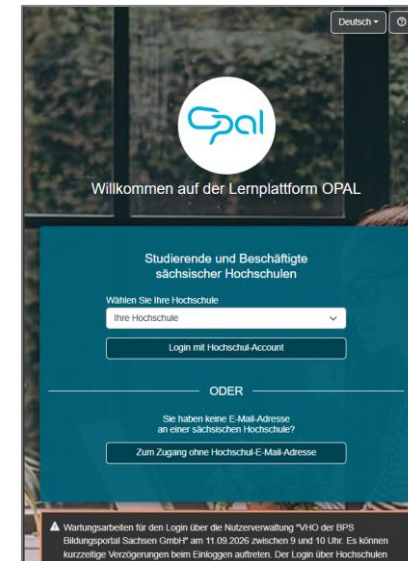
## Student Council

[www.fsr-verkehr.de](http://www.fsr-verkehr.de)



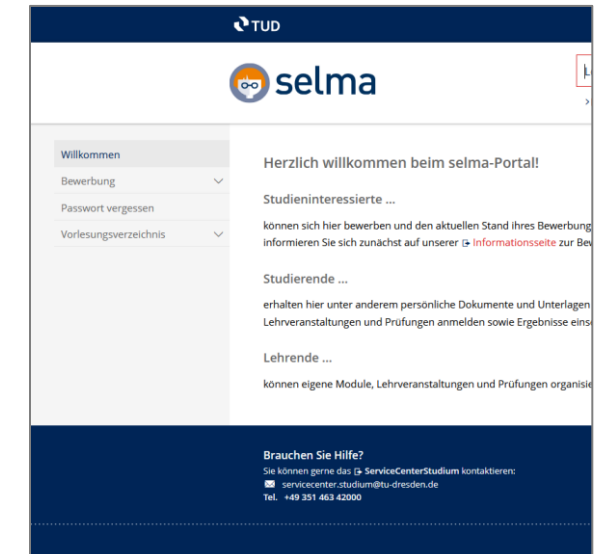
## Learning Platform OPAL

<https://bildungsportal.sachsen.de/opal>



## Selma-Portal

<https://selma.tu-dresden.de>



# Counseling Center

The ServiceCenterStudies supports you with all questions relating to your studies, including Campuscard – by email, phone or in person – we are here to help.

SCS Servicearea, Fritz-Foerster-Bau,  
Mommsenstraße 6

✉ [scs@tu-dresden.de](mailto:scs@tu-dresden.de)

☎ +49 351 463 42000

🔗 [tud.de/studium/beratung](https://tud.de/studium/beratung)



**Studierende  
des FSR**

*Students of the  
student council*



**Fr. Belde  
im Prüfungsamt**

*Mrs. Belde in the  
examination office*



**Beratung im  
Studierendenrat**

*Advice in the  
TUD-students council*



**Beratung des  
Studentenwerks**

*Advice from the  
Student Union*



**Studienberatung  
des SCS**

*Study Advice in the  
Service Center Studium*



**International  
Office**

*Advice for the  
international students*

# Contact Persons

## Your student contact persons



**Yinan Wang**  
Tutor TEc



**Pujith Kethanbai Oza**  
Tutor ATL

[international.tutors-vw@tu-dresden.de](mailto:international.tutors-vw@tu-dresden.de)

# Does it fit?! Program (PASST?!-Programm)



## Participation

Give your **consent** for >>PASST?!<< in selma



## Check

An **anonymous check** of your study progress data will be made regularly



## Support

You will receive **individual advice** and **support offers**



- **"Early warning system"** for difficult study paths with individual tips & tricks.
- **Good service, highly recommended! Registration in Selma Portal required.**
- **Information:** <https://tu-dresden.de/studium/im-studium/beratung-und-service/zentrale-studienberatung/passt>



Good to know



# Learning spaces at the TUD

- **Gerhart Potthoff Building (POT):**

- Student workspace POT 067 A
- Workstations in „U-Boot“ (outside opening hours - until 11 am and from 2 pm)
- Seating areas in the stairwells

- **Staats-, Landes- und Universitätsbibliothek (SLUB):**

- Many workstations in the main building (Zellescher Weg)
- many workplaces in Dre.Punct (Zellescher Weg)
- relatively quiet workplaces in other branch offices

- **Teaching spaces for learning spaces:**

- Vacant classrooms, if available and previously booked:

<https://bildungsportal.sachsen.de/opal/auth/RepositoryEntry/35839836161?0>



# Learning languages at the TU Dresden

## Languages on offer

|               |         |         |            |
|---------------|---------|---------|------------|
| Ancient Greek | Arabic  | Chinese | German     |
| English       | Finnish | French  | Italian    |
| Japanese      | Latin   | Polish  | Portuguese |
| Russian       | Swedish | Spanish | Czech      |

**Registration / Enrollment at the start of the semester**  
**Attention: Places are limited!**



<https://bildungsportal.sachsen.de/opal/auth/repository/catalog/32172998658>

# German Courses for international Students

**If you want to work in Germany, you absolutely need German.**  
If not, it will still help you through your studies.

## **Basic and advanced Courses**

- Understanding lectures better
- Give lectures in German
- Prepare exams

## **"German as a foreign language"**

- for different language levels
- General German
- Subject-specific German

[https://www.sprachausbildung.tu-dresden.de/sprachen/deutsch\\_als\\_fremdsprache/](https://www.sprachausbildung.tu-dresden.de/sprachen/deutsch_als_fremdsprache/)



# Scientific Writing Workshop

## THE WRITING CENTER OF TU DRESDEN

### current offers

The **writing peer tutors** and **lecturers of the Writing Center** support students and lecturers in scientific writing and in the teaching of scientific work, among other things with **writing consultation**, **workshops** in courses and various further **education formats** - also during the lecture-free period.

### more information and registration

- > for students
- > for lecturers
- > workshops for students
- > Continuing Education for lecturers

At the Writing Center of TU Dresden (SZD) you can find information and help concerning academic reading and writing. The SZD supports students and lecturers with offers such as

- planning and writing various study texts, such as protocols, seminar papers or theses
- and teaching academic writing in seminars/ lectures and supervision.

## FOR STUDENTS



From your first transcript or term paper to your final thesis: the Writing Center team is happy to provide advice and assistance throughout your studies

An overview of all offers for students as well as further information is listed below:

|                                          |   |
|------------------------------------------|---|
| Writing Consultation                     | ▼ |
| Corrections/Lecturing                    | ▼ |
| workshops: online & offline              | ▼ |
| offers for studium generale              | ▼ |
| Infothek & Newsletter: Material and Tips | ▼ |
| Room for Writing at the TextLab          | ▼ |
| Learning and Writing Groups              | ▼ |
| Long Night Against Procrastination       | ▼ |
| Writing Marathon                         | ▼ |
| Qualification & Peer Learning            | ▼ |

<https://tu-dresden.de/studium/im-studium/studienerfolg/schreibzentrum/fuer-studierende>

# Some things you don't learn in college, but only in life

- **Acquire own working methods**
  - How do I **manage my time**?
  - How do I **structure my semester** so that I can still “breathe” during the exam period?
  - How do I acquire the necessary **MS Office skills** so that I can write good term papers and theses?
  - How do I **file documents** and find them again later?
  - How do I use and link my **email accounts**? How do I use a digital calendar?
  - What do I need to keep in mind when **writing letters/emails** to internship companies, supervisors or professors?
  - ...

# Some things you don't learn in college, but only in life

- **Social commitment**

in committees, associations or interest groups

(FSR, "Listige Vereinigungen", Spätverkehr, politics, sport clubs, TU Dresden University Sport Center,...)

- **Get to know the professional world**

Internship, student assistant, interest group

# Summary

- Study requires a lot of independence, but is fun!
- If you have problems, get help in time!
- Network with each other!



# Have fun & good luck in your studies!



 **Mobility Magazine**  
Online-Magazine & Newsletter  
↗ [mobility-magazine.de](https://mobility-magazine.de)



 **LinkedIn**  
@TUD | Fakultät Verkehrswissenschaften „Friedrich List“  
↗ [linkedin.com/showcase/tud-vw](https://linkedin.com/showcase/tud-vw)



**TUD | Fakultät**  
Verkehrswissenschaften  
„Friedrich List“