

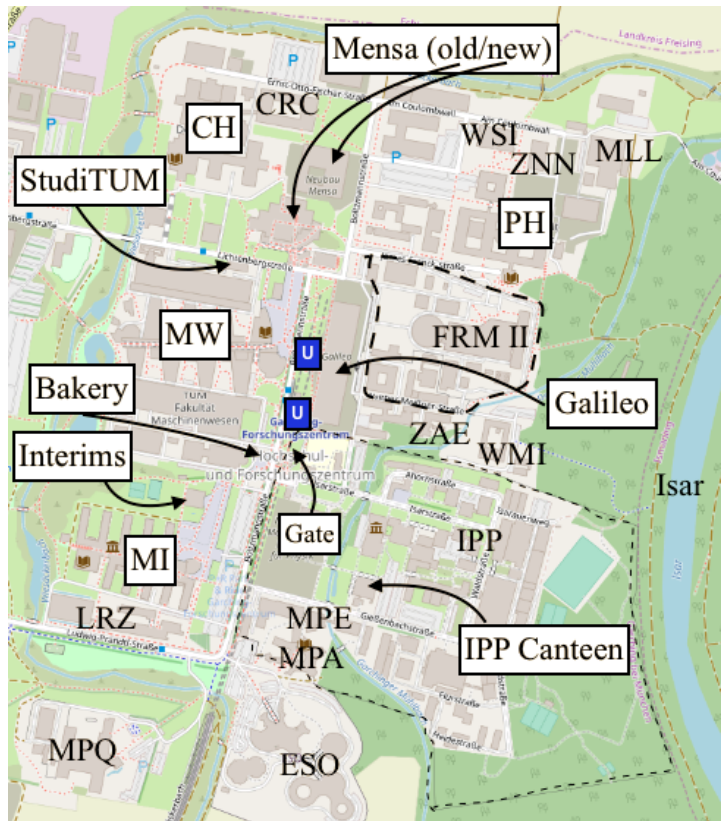
## A Travel Guide for Math Students

**Welcome to the Technical University Munich!** This Guide was created for math students starting in the winter semester 2019/20. It might not contain all details about life as a math student, however it contains a variety of key topics you will face day-to-day. In principle, everything is explained in the introduction days (called SET), but you never know what your SET tutor might forgot to mention :). It was designed and continuously extended by active students of the Fachschaft Maths/Physics/Informatics (FSMPI). This is the group of students that realises the SET (and much more) :).

## Finding Your Way Around

One of your first concerns might be where to find your lecture or seminar rooms. This section gives a short overview of the campus and the most important departments including the room number conventions. By understanding these conventions you can easily find all the rooms located in those buildings. In addition you can use the RoomFinder: <http://portal.mytum.de/campus/roomfinder>.

### Campus Garching



Most of the technical departments of the TUM are located at the Campus Garching. The most important buildings on the campus for a math student are the Informatics and Math, the Interims and the Mechanical Engineering building. From time to time there are also courses in the Physics building.

### Math and Informatics (MI)

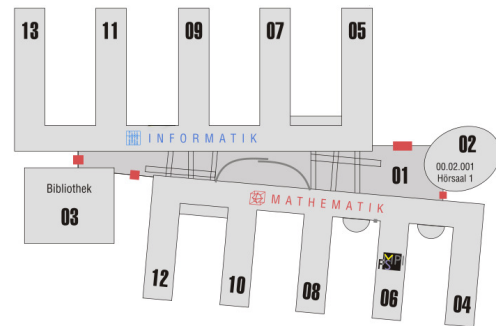
Most of the lectures and classes will take place at the MI building. You can see the large lecture hall HS1 on the left when you enter the main entrance. HS2 and 3 are opposite the main entrance on the ground floor. The building consists of 10 side-buildings, called fingers. Between the two halls, in finger no. 6 are the rooms of your Fachschaft FSMPI.

All the rooms are named by the following convention: A room name consists of three components (e.g. 01.10.052).

**1st component:** Floor (-1=Basement, 0=Ground Floor, 1=1st Floor, etc.)

**2nd component:** Finger (see blueprint)

**3rd component:** Room number



### Mechanical Engineering (MW)

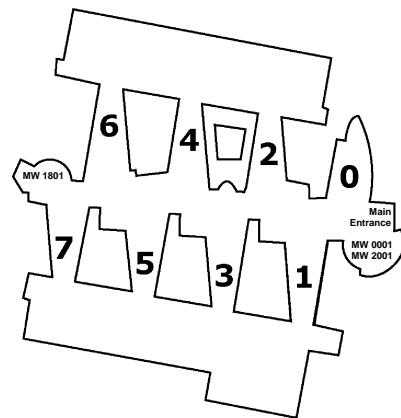
The Mechanical Engineering is the biggest building on the campus. The most important rooms for CS/IS students are the lecture halls MW0001, MW2001 and MW1801. The MW2001 is the largest lecture hall on Campus Garching and is stacked on top of MW0001 located near the main entrance. At the end of the building is the lecture hall MW1801. Those lecture halls are of importance, because some central tutorials and exams take place there. From time to time tutorials are offered in seminar rooms in between.

All the rooms are named by the following convention: A room name starts with „MW” and is followed by 4 digits:

**1st digit:** Floor (-1=Basement, 0=Ground Floor, 1=1st Floor, etc.)

**2nd digit:** Yard (see blueprint)

**3rd & 4th digit:** Room number



### Physics Department (PH)

Most likely, only the PH1 lecture hall is interesting for you. You can reach it via the foyer - just go straight in and turn left. To find other rooms in the physics department quickly, there is the usefull link: <http://www.ph.tum.de/roomfinder>.

### Other Buildings

The **StudiTUM** is the new building between the Mensa, the CH and the MW. Every student can activate his student card via TUMonline to have access 24/7. In the building you will find working-rooms and one kitchen per floor. In addition, there is a roof terrace and a rehearsal room for bands is under construction in its basement.

Between the MI and MW is the **Interims** building with adjacent sports fields (basketball, volleyball, etc.). The new **Interims II** building is between the CH and the StudiTUM. Both Interims each contain two medium-sized lecture halls.

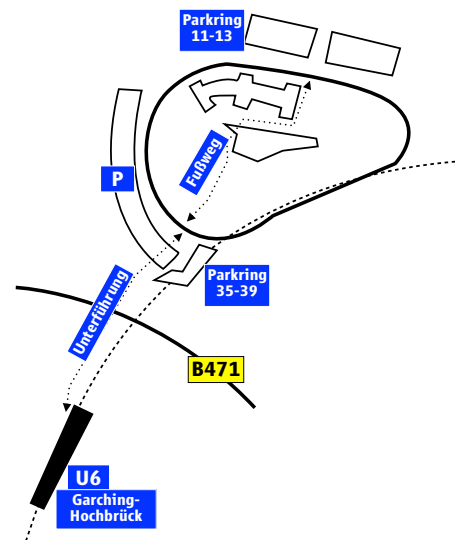
The permanent construction site in the middle of the campus is the **Galileo**. It will be home of a huge lecture hall (approx. 1300 seats) for lectures and concerts as well as restaurants, the first supermarket on the campus, a bookshop, hotel rooms, apartments and offices. There is also a gym, which is already open now all week, even though the rest of the building is still under construction.

In addition, there is a whole bunch of research institutes on campus, which will become interesting later during your studies. South of the MI building is the Leibniz Data Centre (LRZ), for example, which operates the Munich Research Network provides a number of IT services and is home to a super computing cluster in the (almost) cuboid building.

### Campus Hochbrück

Occasionally, lectures or other events are held in an office building in Garching Hochbrück. Two office buildings have been rented as extension for some chairs of the mathematics and informatics departments.

Coming from the U-Bahn (subway) station, you can take the underpass under the B471 to the Parking. One building is on the right, the other building is across the small lake to the other side of the ring - see map.



### Food & Drinks (Oh my coffee!)

Congratulation, you belong to the first year to directly enjoy the the **new Mensa** (opened 11.09.2019). You can find it north of the old Mensa building and it promises to be much

better than the old one: There are eight counters including salad and vegetable counters, pizza and pasta counters and a barbecue.

The food counters are open from 11:00 to 15:00 (Mon - Thu) or until 13:45 (Fri). In the lecture-free time the Mensa closes at 14:00. There, one pays at self-checkout terminals. However, it is important to know that you must pay with your Student Card, which can be charge a balance at one of the machines located in ground floor of the building. To do so, you hold your card (might still be placed in your wallet) against the card reader and feed it with a banknote. Alternatively you can register for *Autoload*: The student card is automatically recharged when the credit falls below a certain value.

By the way, it is worth having a look at the timetable of mechanical engineering freshmen, at least around lunchtime. With a class of this size you really don't want to wait in line together. Not even if the new Mensa can actually reduce the waiting times.

In addition the Studentenwerk operates two cafeterias on the campus Garching, called **StuCafe**. They also offer hot lunches, but are a bit more expensive. As in the Mensa, you will also pay with the Student Card. One StuCafe has been moved to the new cafeteria building. (Mon - Thu 08:30 - 15:45 and Fri until 14:45). The other StuCafe is located at the western end of the MW building and has longer opening hours (Mon - Thu 08:00 - 17:00 and Fri until 16:00). In the middle of the MW-Magistrale is a **coffee bar**, which additionally offers snacks and hot dogs. In this bar you can pay with cash as well as with your Student Card.

Only cash will be accepted for the following meal locations. In the MI building the privately run **FMI Bistro** offers a larger (and usually better) selection of meals, but is generally more expensive than the Studentenwerk's offer. However, it is also open in the evening (Mon - Fri 07:00 - 19:00, lunch from 11:30). In the 8th finger there is a **coffee terminal**, which you may have already discovered.

The **bakery Riedmair** near the southern subway exit is also open weekdays until 19:00. Adjacently there are two popular stalls: **Onkel Luu** (Asian) and a **Kabab**. A food truck, which is on campus Tuesday to Thursday from 11:00 - 14:00, is the **Pita Booth** at the parking lot in front of the ESO entrance.

Furthermore there is the big **IPP-Kantine** in the fenced area of the Max-Planck-Institutes, which is often used as an alternative to the Mensa. It is in the same price category as the FMI bistro, but has a little more choice. To enter the site you need your student card. Show it at the IPP-gate to enter. Here you can also ask for the way to the canteen.

Unfortunately, in the physics building you need to survive only with snack and coffee machines. They are placed in the foyer. New is the possibility to use your own cup instead of the plastic cup (and get a discount for doing so).

If you are still hungry and moreover thirsty in the evening after 19:00, there is the **Campus-Pub C2**.

You can find menus for many of these food options at <https://hunger.tum.sexy>.

## Studies

In the **lecture** your professor stands in front and explains the course material. Here (as well as in (almost) all other classes)

attendance is not compulsory. Questions can (and should!) be asked by you even if it can take some courage to ask in front of the whole class. Remember: if you didn't understand something, you're probably not alone. The other students just didn't have the courage to ask.

While the quality of lectures may vary, you will soon realize that just attending lectures is not quite enough for studying successfully. What is essential is taking part in the tutorials and other exercises. In **central tutorials**, typically the tutorial organizer will reiterate some material or work some sample problems for you, deepening your understanding.

The **tutorials** are taught by postgraduate students or students of higher semesters. You'll find yourself with about 3-30 people, depending on the popularity of the time-slot (or the tutor). In the tutorial either the homework or the solution to other problems are presented either by you or the tutor. You'll be told in your first lecture in each course how to sign up for the tutorials. Most of the time if your tutorial doesn't suit you, you can switch groups.

“Homework?!”. Yes, indeed there are **homeworks**. In most courses you aren't required to hand them in, or even solve them. You might take this and the fact that most questions are rather hard as an excuse not to do them. Don't! You might have to spend a lot of time with the homeworks, but they are the only way to get a feeling for the course material, and give you the skills needed to pass the exam. Try to team up with 2-3 fellow students to work on homeworks. You'll be glad about the discussions you'll have.

At the end of term you write **exams** about the courses you covered. These are usually more difficult than exams you might have had so far, but typically easier than your homework. So if you made an effort with your homework you should do fine in the exams.

## Books

As an enrolled student you can borrow books from the TUM University Library. In the MI-library you'll find all the books that are relevant for you, but many of them are not borrowable. The large textbook collection with many borrowable copies of all subjects is located in the chemistry library. To search, order, or reserve books, the university library page is quite useful: <https://www.ub.tum.de/en>. As a rule, you can borrow books for 4 weeks. If nobody else preorders your copy, you'll get an automatic extension for a few months, see <https://www.ub.tum.de/en/borrowing-checking-out>. The books can be returned in any library section.

The current opening hours of selected libraries are:

**Informatics/Math:** 8:00 - 24:00 (Mon - Fri) and 10:00 - 20:00 (Sat, Sun)

**Chemistry (CH):** 8:00 - 21:00 (Mon - Tue) and 08:00 - 19:00 (Fri)

**Mechanical Engineering:** 08:00 - 21:00 (Mon - Thu) and 08:00 - 19:00 (Fri)

**Physics:** 9:00 - 21:00 (Mon - Fri)

## Lecture Notes

Printed scripts issued by some lectures and collections of previous exams can be purchased from the Fach-

schaft. You'll find the opening times of our sales office at: <https://mpi.fs.tum.de/en/for-students/services-of-the-student-council/script-sales>. The catalog can be found at: <http://skripten.mpi.fs.tum.de/katalog>. If you're interested in participating, you can help us selling these scripts!

## Working Rooms

Of course the libraries are suitable for working on your own.

In the atrium (called Magistrale) of the MI building you have surely already found a larger number of wooden benches, these are a first possibility for group work. In the library extension of the MI there are additional single and group rooms on the 1st floor, which you can reach via the wooden staircase at the end of the Magistrale. These are accessible 24 hours a day (and quite popular). You can also use the rooms between the fingers of the building in the upper floors, called „glass boxes” (or, if there is no copier there, at the tables in front of it).

In the MW there are tables and chairs everywhere in the Magistrale, which are also suitable for group work. There are also work-rooms in the StudiTUM.

If a room is connected to the learning room management system, you can see whether it is occupied or not at <http://go.tum.de/lernraum> (German but might still be useful). Please use the attached displays in these rooms (next to the door) so that the website shows the actual occupancy at all times.

# Computing

The university provides a rich IT infrastructure and many possibilities for accessing computers, software and the internet.

Upon enrolling you receive an university account with an e-mail address which should look like **ab12cde@mytum.de** or **name@tum.de**. This address is used by the university to contact you. In addition you need the address or your TUM-ID (of the form ab12cde) for authentication at several services.

## Computer Rooms and Networks

In the MI building, you can use the computers in the Computer halls (room 00.05.011 and 00.07.023) and in the MI library. Opening hours for the computer halls are 8:00 to 24:00 (Monday to Friday). An Internet café, which is accessible 24 hours a day, is located in room 00.08.057.

In the MW building there are also some computers for public use. Entering at the main entrance and looking to the upper left you will find them. To log in you'll need your LRZ/MyTum account.

## Wifi

You can use any Wifi-capable device to access the internet on campus. Therefore you need to connect to one of the following networks:

The network, **eduroam**, even available worldwide at many teaching and research institutions. In other words, you can dial into **eduroam** at all other institutions with access authorization from the TUM. Detailed instructions to the institutions can be found at <https://www.lrz.de/services/netz/wlan>.

In all faculty buildings you'll find the **lrz** network. This is an not password protected network - however you will only gain internet access after establishing a secure VPN connection. For a detailed instruction on how to establish the VPN connection, connect to the **lrz** network and browse to the following page: <https://www.lrz.de/services/netz/mobil/vpn>.

In the MI building there is also the FMI network, which you can access with WEP key. If you are logged in with the VPN client somewhere in the world, you can get this key at <http://wwwrbg.in.tum.de/betrieb/funklan>.

## Software

Scientific software is usually powerful and can be deliriously expensive. Fortunately, many of those are available at the university.

Using the computer halls mentioned above (which you can also access by SSH) you can use a lot of standard programs (OpenOffice.org, GIMP, Gnuplot, ...) and also access to programs for scientific computing (Maple, MATLAB, Mathematica, ...) and software development (gcc, Eclipse, ...).

For most Microsoft products you'll be able to get a (free) license via **Dreamspark** at <https://www.studisoft.de>

On the computers in the LRZ you can also use a number of scientific programs or purchase licenses for home use: <https://www.lrz.de/services/software> and <https://www.lrz.de/services/swbezug>.

Unfortunately, those websites are in German, but your German fellow students will definitely help you out.

## Printing, Scanning, and Copying

In front of some of the „glass boxes” in the MI and in the library on the 1st floor there are copiers available for copying, which accept payments by your student card. Here you can also scan documents for free (also with automatic document feeder) and have them sent to you e-mail address or save them as PDF on a USB stick or SD card.

If you want to copy or print some large document, a **copyshop** is located at the west end of the mechanical engineering building. Alternatively you can have a look at the services of the LRZ, including A0-Scanner and color poster printing. The script sales office also offers printing quotas for the computer hall. Details here: <https://mpi.fs.tum.de/en/for-students/services-of-the-student-council/print-quota>.

# IT-security

You can enable basic protection of your data, your computer and your digital identity by taking some simple actions.

At <https://www.it.tum.de/en/it-security/for-students> you can find out how to protect your computer and smartphone.

Students have the opportunity to download the free malware protection „Sophos Antivirus” from the LRZ website. There you will find versions for common systems. For the download and the regular update you need to connect your computer to **eduroam** or activate the VPN connection to the LRZ.

Since you can log in with the TUM ID and the corresponding password to many TUM services, it is particularly important that you choose a very good password here. Of course you should use this password exclusively for the TUM identification. At <https://www.it.tum.de/en/it-security/for-students/passwords> you will find many tips and a password card to print yourself.

# Additional Links

**Faculty of Informatics:** <https://www.in.tum.de/en>

**Your Fachschaft:** <https://mpi.fs.tum.de/en>

Have a look at „Entering TUM” / „Begin of Studies”

**MVV Public Transport:** <https://www.mvv-muenchen.de/en>

**Central University Sports:** <https://www.zhs-muenchen.de/en>

**Studentenwerk:** <https://www.studentenwerk-muenchen.de/en>

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And of course, us, your **Fachschaft** (MI 00.06.036)!

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Edited by Katrin Geigenberger  
Winter semester 2019/20  
All information without guarantee