

Student's Guide BSc Mathematical Foundations of Data Science

student representatives for mathematics

winter semester



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Inscription

Your Mathematical Foundations of Data Science degree program begins with the admission process and the (successful) entrance exam. This starts for everyone on the university website:

<https://aufnahmeverfahren.univie.ac.at/en/mathematical-foundations-of-data-science>

The next steps vary depending on your citizenship and the country where your high school diploma was issued. This overview is for individuals with a high school diploma from Austria or Germany. (A more detailed description of the procedure can also be found on the website linked above. If you have any further questions, you can also contact the SSC, short for StudienServiceCenter (Study Service Center): <https://ssc-mathematik.univie.ac.at/en/>)

1. Preparing documents & Applying for approval

First, you need to create an account on u:space at <https://account.forms.univie.ac.at/uaccount-anlegen/index.html?lang=en>. To do this, first select your degree program and then upload the following documents:

- passport
- High school diploma (if not yet available, simply follow the instructions and upload it later)
- Proof of B2 English language skills (You do not need any knowledge of German for this degree program.)
- (additional and approval tests if required)

Now you can submit your application and track its status.

2. Online-Self-Assessment

The Online Self-Assessment (OSA) gives you insights into the degree program and allows you to assess for yourself whether it meets your expectations and interests. You will also work on questions that will come up in a similar way at the beginning of your studies. This OSA is just for yourself, is anonymous and will not be evaluated. Confirmation of completion of the OSA will be sent to you by email and must be uploaded when you register for the program.

3. Entrance exam

This program has an entrance exam. To pass it, you need at least 50 % of the total points. In addition, registration costs €50 and is (like the program) in English. Please note that the entrance exam takes place on site in Vienna and there are no alternative dates. You should

receive confirmation of admission 14 days in advance. You must bring this confirmation and photo ID with you on the day of the test. Free test literature and sample questions can be found here: <https://aufnahmeverfahren.univie.ac.at/en/through-the-entrance-exam/test-details#c6839>

Further information on the admission procedure and everything you need to know can be found on the University of Vienna website: <https://aufnahmeverfahren.univie.ac.at/en/the-day-of-the-written-test>

4. After the entrance exam

You will receive the results of the entrance exam approximately two weeks later. If the result is positive (congratulations!), you will receive further information by email and will start your studies in October with the winter semester.

5. Student's union fee

Pay the student's union (ÖH) fee to complete your registration – you can do this on u:space under “Finances.” Please note that it may take several days for your payment to be processed.

You cannot study without paying the ÖH fee! So don't miss this deadline!

6. u:card

The u:card, i.e. your student ID card, can be ordered on u:space as soon as the ÖH fee has been paid. It will be sent to you and must be validated. You can do this at one of the u:card terminals, which can be found, for example, in the Mathematics Faculty building.

Deadlines

You can find the exact dates and registration deadlines at:

<https://aufnahmeverfahren.univie.ac.at/en/admission-info/mfds>

The most important dates to keep in mind are:

- Application deadline: approximately early March to early May
- Entrance exam: approximately mid-June
- Start of semester: October 1 for the winter semester and March 1 for the summer semester

Registration phase

You have from around the beginning of September until one week before the start of the semester to register for courses. You should register at first for the following courses:

- **VO STEOP: Introduction to Mathematics in Data Science**

In principle, you can attend lectures without registering. However, it is highly recommended that you register, as otherwise you will not have access to the materials in the Moodle course.

- **UE STEOP: Introduction to Mathematics in Data Science**

You must be registered for this course and attendance is mandatory.

Registration

You can register via **u:find** at <https://ufind.univie.ac.at/en/index.html>. Search for the desired course and open it. You can use the abbreviation SPL25 to limit the courses displayed to those for the mathematics program. Click on “Register/Deregister for this course” to proceed with registration and follow the instructions. Other important information includes:

- If there are several groups for a course, it is sufficient to click on “register” for one of them. You can then specify which groups you prefer. Theoretically, only one group can be selected, but your chances of getting a place increase if you select several groups.
- At the end of the registration period, you will find out which groups you are in. All registrations can be viewed at any time on u:space under “Courses” → “Registration overview.”
- Missed the registration deadline? Send an email to the Student Service Center (ssc.mathematik@univie.ac.at) and explain your situation. In most cases, free places can still be found. Nevertheless, try to register for everything in good time.

First Week

Below you will find all the events you should attend during the first week.

Information event

The information event always takes place in the first week and serves to summarize all the information about the program for you once again. The event is listed on u:find, so you can register for it, but this is not actually necessary—just come along, as attendance is not checked.

VO and UE StEOP

The StEOP includes the course “Introduction to Mathematics in Data Science” and the exercise with the same name. Normally, no assignments or similar tasks need to be prepared for the units in the first week. The mode for the courses will be clarified in the first unit. If you have missed the registration deadline for a course, you can send an email to the Student Service Center (SSC) explaining your situation and requesting a late registration.

The start of the Mathematical Foundations of Data Science course is fast-paced, the material is extensive, and the transition is not easy—but don’t let that intimidate you. With a little effort, the new concepts will quickly become easier to understand. Collaboration is encouraged in the program, and you can ask your fellow students or us (the Roter Vektor) if you have any problems understanding the material and/or get stuck on assignments.

Erstitut/Kick-Off

The kick-off event for the Erstitute will also take place during the first week. Erstitute are purely social events that have nothing to do with the rest of the course material. They are organized by Roter Vektor. They are simply about networking, making friends, and having fun. At the kick-off event, your Erstitute leaders will introduce themselves and give you more information about the Erstitute events, which will then take place weekly. Participation is not mandatory, and attending the kick-off event does not commit you to anything. :)

StEOP

StEOP stands for “Studieneingangs- und Orientierungsphase” (study introduction and orientation phase). It serves to give you an impression of the Mathematical Foundations of Data Science program and help you decide whether it is the right choice for you. It lasts for the first 7 weeks of the first semester and ends with an exam. If you pass this exam, you will be admitted to all further courses of the bachelor’s program.

VO STEOP

Attendance at lectures is not compulsory, but it is nevertheless recommended to attend in person, as the material covered will form the basis of the StEOP exam and the theory for the exercises. In some cases, an online stream is also offered, but this is not always the case.

However, grading is based solely on the exam at the end of the course!

UE STEOP

The lecture exercise is a mandatory part of the StEOP and, like the lecture exam, must be successfully completed in order to pass the StEOP module. The exercise takes place in two units per week.

In the exercises, the contents of the lecture are deepened and exercises on the material are worked on, which you receive in advance, work out, and then present in the lecture. There are usually checklists where you can check off the exercises you could present. To pass, you must achieve a certain percentage of checks over the course of the course.

Attendance is **mandatory** for exercises! Normally, you are allowed to be absent once without excuse, but if you are absent again, you will be removed from the course and will not be able to complete and pass it. Furthermore, checklists usually only count if you are present, so if you plan to be absent, it is a good idea to apologize to the instructor, because it is sometimes possible to submit the assignments by email and thus receive valid checkmarks.

You should not miss the first session in particular, as you will also be removed from the course if you do. The exact requirements you must meet in order to pass (percentage of marks, presentations, positive math tests, etc.) will be clarified in the first session of the course.

Tutorial

Tutorials are question and answer sessions led by students in higher semesters (=tutors) who answer your questions and discuss the lecture material with you. You do not have to register for tutorials, they are not mandatory, and you can simply drop by at any time during the semester. Many tutorials are organized by "Mathe macht Freu(n)de" (=MmF). You can find the location and time on their website: <https://mmf.univie.ac.at/angebot-fuer-studierende/tutorien/>.

Before exams, **intensive tutorials** are usually held on a few weekends, during which old exams are worked through in a double session.

STEOP exam

Registering for the lecture does not mean you are automatically registered for the corresponding exam! You must register separately for the exam via the u:find entry for the course, which will open some time before the exam—be sure to keep an eye on the registration deadline. Registration and deregistration are usually possible up to two days before the exam, but there is no guarantee (so it's better to take care of it a little earlier).

Exams may be taken four times, with the fourth and final attempt being assessed by a committee, i.e., the exam is graded by a committee and not just by the examiner. If all four attempts are unsuccessful, you will be de-registered and will not be allowed to start another degree program with the same StEOP at the University of Vienna for the rest of your life. However, you are not obliged to take every single exam offered—if you do not feel ready for the StEOP exam immediately after the lecture, you can wait until the next exam (usually in January).

It may take up to four weeks for your grade to be entered after the exam, and you have the right to review your exam after it has been corrected (= exam review).

Nach der StEOP

Subsequent courses After StEOP, the following courses will continue:

- VO Introduction to Linear Algebra
- UE Introduction to Linear Algebra
- VO Introduction to Analysis
- UE Introduction to Analysis

Registration for these events is done in exactly the same way via u:find. But please note: the registration period for the UEs is at the beginning of November, which is still during the StEOP!

Further studies

From the second semester onwards, the pattern is always the same: before the semester begins, there is a registration period for courses that run throughout the semester. Only exam registrations are required at a different time; normally, the registration period for these is a few weeks to days before the exam date. You can find out which courses are best taken in sequence and what the recommended path through the program looks like in the curriculum: https://mtbl.univie.ac.at/storage/media/mtbl02/2024_2025/2024_2025_92.pdf (Unfortunately it is only available in German).